

**PASCO COUNTY ZONING & SITE DEVELOPMENT  
TECHNICAL RESUBMITTAL APPLICATION FORM**

PROJECT NAME Mu-Grow  
 PROJECT NO. (FROM DEVELOPMENT REVIEW DIVISION): SML 15-035  
 ✓ ENGINEER: NAME: Gary A. Boucher, P.E., Ozona Eng.  
 ADDRESS: PO Box 432  
Ozona, FL 34660  
 TELEPHONE NO (727) 785-3939  
 FAX NO: (727) 785-3434  
 E-MAIL gboucher@ozonamail.com

The following documents are submitted with this application

1 Copies 1 CD Drawing No Full Set Revision 1 Title Mu-Grow

Type of review/approval being sought (reference Section 303, Common Procedures, Pasco County Land Development Code)

|           |                                       |          |           |                                       |       |
|-----------|---------------------------------------|----------|-----------|---------------------------------------|-------|
| PSP-Small | Preliminary Site Plan                 | <u>✓</u> | PSP-Large | Preliminary Site Plan                 | _____ |
|           | Construction Site Plan                | <u>✓</u> |           | Construction Site Plan                | _____ |
|           | Stormwater Management Plan and Report | <u>✓</u> |           | Stormwater Management Plan and Report | _____ |
| MRS/LFLD  | Preliminary Development Plan          | _____    | PDP       | Preliminary Development Plan          | _____ |
|           | Stormwater Management Plan and Report | _____    |           | Stormwater Management Plan and Report | _____ |
|           | Construction Plan                     | _____    |           | Construction Plan                     | _____ |

- I, as representative for this project, consider the response to technical comments complete and hereby request that the resubmittal be reviewed and scheduled for final action
- I, as representative for this project, am submitting the response for review by staff and receipt of any comments that may be generated

|   |                                 |  |
|---|---------------------------------|--|
| SUBMITTED BY <u>Ozona Eng.</u><br>NAME: <u>Gary A. Boucher</u><br><small>(PRINT)</small><br>SIGNATURE <u>Gary A. Boucher</u><br>E-MAIL <u>gboucher@ozonamail.com</u><br><br>DATE STAMP (FOR OFFICE USE ONLY)<br><div style="border: 1px solid black; width: 100px; height: 50px; margin-top: 5px;"></div> | (FOR OFFICE USE ONLY)           |  |
|   | FINAL DETERMINATION DUE _____   |  |
|   | DRC DATE (if applicable): _____ |  |
|   | PUBLIC NOTICE(S) DUE _____      |  |
|   | OTHER _____                     |  |
|   | • PROJECT _____                 |  |

**LEGAL DESCRIPTION**

PARCEL 29-26-16-0010-01700-0000

A PORTION OF TRACT 17, TAMPA-TARPPON SPRINGS LAND COMPANY SUBDIVISION, OF SECTION 29, TOWNSHIP 26 SOUTH, RANGE 16 EAST, PASCO COUNTY, FLORIDA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGES 69 AND 70, OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE N89°50'38"W, ALONG THE NORTHERLY BOUNDARY OF SAID SECTION 29, A DISTANCE OF 35.24 FEET; THENCE S03°47'40"E, A DISTANCE OF 25.06 FEET TO THE INTERSECTION OF THE WESTERLY RIGHT-OF-WAY OF GRAND BOULEVARD (STATE ROAD NO. 595; OLD DIXIE HIGHWAY), AS NOW ESTABLISHED, WITH THE SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, AS NOW ESTABLISHED, AND THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID WESTERLY RIGHT-OF-WAY, S03°47'40"E, A DISTANCE OF 163.16 FEET; THENCE S82°51'57"W, A DISTANCE OF 104.99 FEET; THENCE S54°21'37"W, A DISTANCE OF 32.16 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY OF THE S.O.L. RAILROAD, AS NOW ESTABLISHED; THENCE N31°35'54"E, ALONG SAID WESTERLY RIGHT-OF-WAY, A DISTANCE OF 229.21 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, AS NOW ESTABLISHED; THENCE S89°50'38"E, ALONG SAID SOUTHERLY RIGHT-OF-WAY, A DISTANCE OF 239.61 FEET TO THE POINT OF BEGINNING.

CONTAINING 33,323 SQUARE FEET OR 0.77 ACRES, MORE OR LESS.

PARCEL "A"

A PORTION OF TRACT 17, TAMPA-TARPPON SPRINGS LAND COMPANY SUBDIVISION, OF SECTION 29, TOWNSHIP 26 SOUTH, RANGE 16 EAST, PASCO COUNTY, FLORIDA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGES 69 AND 70, OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE N89°50'38"W, ALONG THE NORTH BOUNDARY OF SAID SECTION 29, A DISTANCE OF 35.24 FEET; THENCE S03°47'40"E, A DISTANCE OF 25.06 FEET TO THE INTERSECTION OF THE WESTERLY RIGHT-OF-WAY OF GRAND BOULEVARD (STATE ROAD NO. 595; OLD DIXIE HIGHWAY), AS NOW ESTABLISHED, WITH THE SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, AS NOW ESTABLISHED; THENCE N89°50'38"W, ALONG SAID SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, A DISTANCE OF 251.38 FEET TO THE POINT OF BEGINNING; THENCE S31°35'54"E, A DISTANCE OF 236.11 FEET; THENCE S54°21'37"W, ALONG THE NORTH BOUNDARY OF THE PARCEL OF LAND DEEDED TO EMEL INDUSTRIES, INC. IN OFFICIAL RECORDS BOOK 1957, PAGE 155, OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, A DISTANCE OF 30.08 FEET; THENCE N31°35'54"E, A DISTANCE OF 256.80 FEET TO A POINT LYING ON AFORESAID SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE; THENCE S89°50'38"E, ALONG SAID SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, A DISTANCE OF 35.28 FEET TO THE POINT OF BEGINNING.

CONTAINING 7,394 SQUARE FEET OR 0.17 ACRES, MORE OR LESS.

PARCEL "B"

A PORTION OF TRACT 17, TAMPA-TARPPON SPRINGS LAND COMPANY SUBDIVISION, OF SECTION 29, TOWNSHIP 26 SOUTH, RANGE 16 EAST, PASCO COUNTY, FLORIDA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGES 69 AND 70, OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE N89°50'38"W, ALONG THE NORTH BOUNDARY OF SAID SECTION 29, A DISTANCE OF 35.24 FEET; THENCE S03°47'40"E, A DISTANCE OF 25.06 FEET TO THE INTERSECTION OF THE WESTERLY RIGHT-OF-WAY OF GRAND BOULEVARD (STATE ROAD NO. 595; OLD DIXIE HIGHWAY), AS NOW ESTABLISHED, WITH THE SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, AS NOW ESTABLISHED; THENCE N89°50'38"W, ALONG SAID SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, A DISTANCE OF 251.38 FEET TO THE POINT OF BEGINNING; THENCE S31°35'54"E, A DISTANCE OF 236.11 FEET; THENCE S54°21'37"W, ALONG THE NORTH BOUNDARY OF THE PARCEL OF LAND DEEDED TO EMEL INDUSTRIES, INC. IN OFFICIAL RECORDS BOOK 1957, PAGE 155, OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, A DISTANCE OF 30.08 FEET; THENCE N31°35'54"E, A DISTANCE OF 256.80 FEET TO A POINT LYING ON AFORESAID SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE; THENCE S89°50'38"E, ALONG SAID SOUTHERLY RIGHT-OF-WAY OF WHIPPOORWILL DRIVE, A DISTANCE OF 35.28 FEET TO THE POINT OF BEGINNING.

CONTAINING 882 SQUARE FEET OR 0.02 ACRES, MORE OR LESS.

PARCEL "C" - (NOT INCLUDED)

A PORTION OF TRACT 17, TAMPA-TARPPON SPRINGS LAND COMPANY SUBDIVISION, OF SECTION 29, TOWNSHIP 26 SOUTH, RANGE 16 EAST, PASCO COUNTY, FLORIDA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGES 69 AND 70, OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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CONTAINING 2,605 SQUARE FEET OR 0.06 ACRES, MORE OR LESS.

PARCEL "D" - (NOT INCLUDED)

A PORTION OF TRACT 17, TAMPA-TARPPON SPRINGS LAND COMPANY SUBDIVISION, OF SECTION 29, TOWNSHIP 26 SOUTH, RANGE 16 EAST, PASCO COUNTY, FLORIDA, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGES 69 AND 70, OF THE PUBLIC RECORDS OF PASCO COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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CONTAINING 2,329 SQUARE FEET OR 0.05 ACRES, MORE OR LESS.

**SECTION 29, TOWNSHIP 26 S., RANGE 16 E**

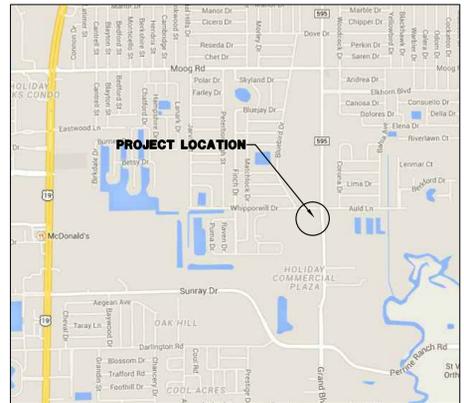
**PASCO COUNTY, FLORIDA**

**PRELIMINARY SITE/CONSTRUCTION PLANS**

**SITE INFORMATION**

PARCEL ID #: 29-26-16-0010-01700-0000

PROPERTY ADDRESS: NONE ASSIGNED



**LOCATION MAP**



**AERIAL PHOTOGRAPH**

**SITE DATA**

|                          | BEFORE DEVELOPMENT   | AFTER DEVELOPMENT                                 | MINIMUM OR MAXIMUM REQUIRED                      | NOTES                               |
|--------------------------|--|---|--|-------------------------------------|
| ZONING                   | C-2  | C-2   |  |                                     |
| LAND USE                 | IL   | IL  |  |                                     |
| FACILITY USE             | VACANT   | MATERIAL STORAGE AND SUPPLY                       |  |                                     |
| LOT AREA                 | 43,038 sf  | 40,409 sf   | 20,000 sf  | Reduce site area per ROW dedication |
| BUILDING COVERAGE        | 0 sf   | 2,160 sf  | 20,205 sf  |                                     |
| TOTAL NUMBER OF STORIES  | 0  | 1   | 6  |                                     |
| GROSS FLOOR AREA         | 0 sf   | 2,160 sf  |  |                                     |
| PAVED VEHICULAR USE AREA | 0 sf   | 10,895 sf   |  |                                     |
| OTHER IMPERVIOUS AREA    | 0 sf   | 10,995 sf   |  |                                     |
| IMPERVIOUS SURFACE RATIO | 0 sf   | 24,050 sf   |  |                                     |
| OPEN SPACE               | 43,038 sf  | 16,359 sf   |  |                                     |
| INTERIOR LANDSCAPING     | 0 sf   | 1,793 sf  |  |                                     |
| BUILDING SETBACKS        | FRONT 0.0 ft E<br>FRONT 0.0 ft N<br>SIDE 0.0 ft S<br>REAR 0.0 ft W | 25.0 ft E<br>25.5 ft N<br>82.0 ft S<br>137.0 ft W | 25.0 ft E<br>25.0 ft N<br>15.0 ft S<br>15.0 ft W |                                     |
| PERIMETER LANDSCAPING    | FRONT 0.0 ft E<br>SIDE 0.0 ft N<br>SIDE 0.0 ft S<br>REAR 0.0 ft W  | 10.0 ft E<br>15.0 ft N<br>10.0 ft S<br>10.0 ft W  | 10.0 ft E<br>10.0 ft N<br>10.0 ft S<br>10.0 ft W |                                     |
| BUILDING HEIGHT          | 0.0 ft   | 20.0 ft   | 60.0 ft  |                                     |

PARKING REQUIRED: USE: STORAGE USING "OTHER COMMERCIAL BUILDINGS" FOR CALCULATION = 1 PER 400 SF

PARKING PROVIDED: 5 (INCL. 1 HANDICAP)

\*2,160 / 43,560 = 0.0496 AC  
FAR = 0.0496/0.93 = 0.05

2,160 / 400 = 5.4

**PROJECT INFORMATION**

PROPERTY OWNER: KD & AA PROPERTIES LLC  
2922 GRAND BLVD  
HOLIDAY FL 34690-3015

DESCRIPTION OF WORK: CONSTRUCT STORAGE BUILDING AND ACCESSORY FEATURES FOR PURPOSES OF STORING GROUNDCOVER MATERIALS, LANDSCAPE, ETC.

PHASE 1: SITEWORK  
PHASE 2: BUILDING AND LIFT STATION

**UTILITY PROVIDERS:**

**FIRE:** STATION 12  
4602 MILE STRETCH DR.  
HOLIDAY, FL 34690  
(727) 847-8102

**WATER AND SEWER:** PASCO COUNTY UTILITIES  
(813) 847-8145

**ELECTRICAL SERVICE:** DUKE ENERGY - FLORIDA REGION  
4121 ST. LAWRENCE DR.  
NEW PORT RICHEY, FL 34653  
CONTACT: ROB CRAWFORD  
(727) 599-4605

**CABLE:** BRIGHT HOUSE NETWORKS, LLC  
10555 MOON LAKE ROAD  
NEW PORT RICHEY, FL 34654  
CONTACT: SANDRA JEFFERS  
PHONE: (813) 856-3278

**TELEPHONE:** VERIZON  
1280 EAST CLEVELAND STREET  
CLEARWATER, FL 33755  
CONTACT: LINDA HUGHES  
PHONE:(727) 562-1136

**CIVIL SITE INDEX**

- C1.1 CIVIL SITE INFORMATION
- C1.2 CIVIL NOTES AND PROCEDURES
- C1.3 CIVIL NOTES AND SPECIFICATIONS
- C2.1 SITE DEMOLITION PLAN
- B1.1 CONSTRUCTION SURFACE WATER MANAGEMENT
- B2.1 BEST MANAGEMENT PRACTICES FOR EROSION CONTROL
- B3.1 BEST MANAGEMENT DETAILS
- B3.2 BEST MANAGEMENT DETAILS
- C3.1 SITE LAYOUT AND GEOMETRY PLAN
- C3.2 SIGNAGE AND MARKING PLAN
- C4.1 GRADING AND DRAINAGE PLAN
- C4.2 POND CROSS SECTION AND STORMWATER MANAGEMENT DETAILS
- C5.1 SITE UTILITIES PLAN
- C6.1 ON-SITE PAVEMENT, CURB AND WALK DETAILS
- C6.2 GENERAL SITE DETAILS
- C6.3 ON-SITE GRADING AND DRAINAGE DETAILS
- C6.4 ON-SITE UTILITY DETAILS
- C6.5 LIFT STATION DETAIL
- RW.1 RIGHT-OF-WAY DETAILS
- TP.1 TREE PRESERVATION AND MITIGATION PLAN
- CL0.1 LANDSCAPE CODE CALCULATION PLAN
- CL1.1 LANDSCAPE CODE PLAN
- CL1.2 LANDSCAPE CODE DETAILS

NOTES:  
1. PROPOSED BUILDING AND LIFT STATION SHALL BE BUILT IN PHASE 2 AT A LATER DATE. ALL OTHER WORK OUTSIDE OF THE BUILDING FOOTPRINT SHALL BE PHASE 1.  
2. A GEOTECHNICAL/GEOLOGICAL REPORT NO. 15-101 DATED 01/22/15 PREPARED FOR THIS PROJECT BY GROUND DOWN ENGINEERING.

**DATUM INFORMATION**

ELEVATIONS ARE BASED ON NGS BENCHMARK "U 672", ELEVATION 15.41 (NAVD88).

**FLOOD ZONE INFORMATION**

THE PROPERTY SHOWN HEREON APPEARS TO BE IN ZONE X, IN ACCORDANCE WITH THE FIRM MAP OF PASCO COUNTY, COMMUNITY NUMBER 120230 (MAP NUMBER 12101C-0353-F), MAP DATED SEPTEMBER 26, 2014.

**BREAKDOWN OF REVISIONS**

| Revision Number | Date     | Description of Revision   | Affected Pages   |
|-----------------|----------|---------------------------|--|
| 1               | 08/12/15 | PER PASCO COUNTY COMMENTS | C1.1, C2.1, C3.1, C3.2, C4.1, C5.1, C1.1.1, B3.1, TP.1 |
| 2               | 08/12/15 | PER SWFWMD COMMENTS       | C4.1   |

**NOTE TO CONTRACTOR**

THIS SET OF PLANS IS COMPRISED OF SEVERAL SHEETS THAT REFER TO EACH OTHER FOR VARIOUS DESIGN DATA AND DESCRIPTIVE PURPOSES. NO SHEET SHALL STAND ALONE. FOR BIDDING, CONSTRUCTION AND COORDINATION PURPOSES, ALL PAGES WITHIN THIS SET OF PLANS SHALL BE PRESENTED TOGETHER, NOT IN PART. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SET OF PLANS TO ALL THOSE CONDUCTING WORK ON THIS PROJECT. INCOMPLETE PLAN PACKAGES MAY BE CONSIDERED INVALID BY THE ENGINEER OF RECORD.

REVISIONS

| NO. | DATE     | BY  | DESCRIPTION               |
|-----|----------|-----|---------------------------|
| 1   | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2   | 08/12/15 | PER | SWFWMD COMMENTS           |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. MY HAND AND SEAL.

Garry A. Baucher, P.E. #2885

SITE SEAL OF AUTH. #A0069021

**Ozona Engineering, Inc.**  
P.O. Box 432  
Ozona, Florida 34860-432  
Phone: (727) 785-3839 Fax: (727) 785-3434  
www.ozonavebsite.com

PROJ#15C-11

**MU-GROW**  
SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #:  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**C1.1**

**CIVIL SITE INFORMATION**

SCALE: NONE

**SURVEYOR NOTES**

THE FOLLOWING NOTES WERE IMPORTED FROM THE SURVEYOR'S PLAN FOR GENERAL REFERENCE:

- UNLESS OTHERWISE STATED, THE PROPERTY DESCRIPTION SHOWN HEREON WAS PROVIDED BY THE CLIENT, OR CLIENT'S DESIGNATED AGENT
- UNDERGROUND IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO BUILDING FOUNDATIONS, HAVE NOT BEEN LOCATED EXCEPT AS SHOWN HEREON.
- INACCESSIBLE ABOVE GROUND IMPROVEMENTS (E.G. BUILDING OVERHANGS, THOSE WITHIN SECURED AREAS, ETC.), HAVE NOT BEEN LOCATED EXCEPT AS SHOWN HEREON.
- THIS SURVEY WAS PREPARED WITH THE BENEFIT OF OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY TITLE COMMITMENT, COMMITMENT NUMBER 14073403, DATED AUGUST 14, 2014.
- THERE ARE NO VISIBLE ENCROACHMENTS, EXCEPT AS SHOWN HEREON.
- BECAUSE OF THE POSSIBILITY OF MOVEMENT OF THE MONUMENTATION FROM ITS ORIGINAL PLACEMENT BY PERSONS OTHER THAN THE SURVEYOR, IT IS RECOMMENDED THAT PRIOR TO ANY NEW IMPROVEMENTS ON THE PROPERTY THE POSITION OF THE MONUMENTATION BE VERIFIED.
- UNAUTHORIZED COPIES AND/OR REPRODUCTIONS VIA ANY MEDIUM OF THIS DOCUMENT OR ANY PORTIONS THEREOF ARE EXPRESSLY PROHIBITED WITHOUT THE SIGNING SURVEYOR'S WRITTEN CONSENT.
- BASIS OF BEARINGS IS DEED.
- ALL BUILDING TIES, PROPERTY MARKER LOCATIONS AND OTHER SITE IMPROVEMENT LOCATIONS SHOWN HEREON ARE MEASURED PERPENDICULAR TO ADJACENT BOUNDARY LINES, UNLESS OTHERWISE STATED.
- FLOOD ZONE DESIGNATION AND/OR FLOOD ZONE LINES (IF ANY) SHOWN HEREON HAVE BEEN SCALED FROM THE REFERENCED MAP AND ARE APPROXIMATE. THE TRUE FLOOD ZONE LINES MUST BE DETERMINED BY AN ENGINEER.
- THIS SURVEY DOES NOT DETERMINE OR IMPLY OWNERSHIP.
- THERE MAY BE ADDITIONAL RESTRICTIONS, EASEMENTS OR OTHER MATTERS OF RECORD THAT ARE NOT SHOWN HEREON THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

**DAVID L. SMITH**  
SURVEYING AND MAPPING, INC.

1406 W. LINEBAUGH AVE. Tampa, FL 33612  
Phone (813) 935-1960 Fax (813) 933-9446

**SURVEYOR MASTER LEGEND**

NOTE:

ALL (OR MOST) EXISTING ITEMS ILLUSTRATED ON THE PLANS HEREIN ARE FROM THE SURVEYOR'S DRAWING. THIS LEGEND IS PROVIDED FOR REFERENCE OF SYMBOLS OF EXISTING ITEMS ON THE PLAN.

|                                    |  |   |
|------------------------------------|--|---|
| A = ARC LENGTH                     | APP = FOUND PINCHED PIPE                   | PROP = PROPERTY                         |
| A/C = AIR CONDITIONER              | FRM = FRAME                                | PSM = PROFESSIONAL SURVEYOR & MAPPER    |
| AF = ALUMINUM FENCE                | FZL = FLOOD ZONE LINE                      | PT = POINT OF TANGENCY                  |
| ALUM = ALUMINUM                    | GAR = GARAGE                               | PMT = PAVEMENT                          |
| ASPH = ASPHALT                     | G/E = CLASS ENCLOSURE                      | RAD = RADIOS                            |
| BFE = BASE FLOOD ELEVATION         | HWF = HIGH WIRE FENCE                      | R = RECORD                              |
| BLDG = BUILDING                    | HWL = HIGH WATER LINE                      | REF = REFERENCE                         |
| BLK = BLOCK                        | INV = INVERT                               | RES = RESIDENCE                         |
| BM = BENCH MARK                    | LS = LAND SURVEYING BUSINESS               | RL = RADIAL LINE                        |
| BNDY = BOUNDARY                    | LFE = LOWEST FLOOR ELEV                    | RLS = REGISTERED LAND SURVEYOR          |
| BRG = BEARING                      | LHSM = LOWEST HORIZONTAL SUPPORTING MEMBER | RND = ROUND                             |
| BWF = BARBED WIRE FENCE            | LS = LAND SURVEYOR                         | RNG = RANGE                             |
| C = CALCULATED                     | M = MEASURED                               | RRS = RAIL ROAD SPIKE                   |
| CB = CHORD BEARING                 | MAS = MASONRY                              | R/W = RIGHT-OF-WAY                      |
| CBS = CONCRETE BLOCK STRUCTURE     | MES = METERS END SECTION                   | SCM = SET CONCRETE MONUMENT             |
| CHD = CHORD                        | MH = MANHOLE                               | SEC = SCREENED ENCLOSURE                |
| CL = CENTERLINE                    | MHL = MEAN HIGH WATER LINE                 | SEC = SECTION                           |
| CLF = DRAIN LINE FENCE             | MSL = MEAN SEA LEVEL                       | SET MAB = SET NAIL AND DISK 1/8" x 1/8" |
| CLOS = CLOSURE                     | MAB = NAIL AND BOTTLE CAP                  | SR = SET 1/2" IRON ROD 1/8" x 1/8"      |
| COL = COLUMN                       | MAD = NAIL AND DISK                        | SQ = SQUARE                             |
| CONC = CONCRETE                    | MAT = NAIL AND TAG                         | SPT = SPLIT RAIL FENCE                  |
| CR = COUNTY ROAD                   | NGVD = NATIONAL GEODETIC VERTICAL DATUM    | SR = STATE ROAD                         |
| C/S = CONCRETE SLAB                | NO = NUMBER                                | STY = STORY                             |
| COR = CORNER                       | O/A = OVERALL                              | SUB = SUBDIVISION                       |
| COV = COVERED AREA                 | OHV = OVERHEAD WIRE(S)                     | S/W = SIDEWALK                          |
| D = DEED                           | OR = OFFICIAL RECORDS                      | TB = "T" BAR                            |
| DOT = DEPARTMENT OF TRANSPORTATION | O/S = OFFSET                               | TEM = TEMPORARY BENCH MARK              |
| DRNG = DRAINAGE                    | P = PLAT                                   | TC = TOP OF CURB                        |
| D/W = DRIVEWAY                     | PB = PLAT BOOK                             | TOB = TOP OF BANK                       |
| EL OR ELEV = ELEVATION             | PC = POINT OF CURVE                        | TOS = TOP OF SLOPE                      |
| EDP = EDGE OF PAVEMENT             | PCC = POINT OF COMPOUND CURVE              | TRANS = TRANSFORMER                     |
| EDW = EDGE OF WATER                | PCP = PERMANENT CONTROL POINT              | TWP = TOWNSHIP                          |
| ESW = EASEMENT                     | PK = PAVEMENT                              | TYP = TYPICAL                           |
| FCM = FOUND CONCRETE MONUMENT      | PK = PARKER KALON                          | UG = UNDERGROUND                        |
| FES = FLAGGED END SECTION          | PL = PROPERTY LINE                         | UTL = UTILITY                           |
| FIP = FOUND IRON PIPE              | POB = POINT OF BEGINNING                   | WD = WOOD                               |
| FR = FOUND IRON ROD                | POC = POINT OF COMMENCEMENT                | WF = WOOD FENCE                         |
| FL = FLOW LINE                     | POL = POINT ON LINE                        | WF = WROUGHT IRON FENCE                 |
| FLD = FIELD                        | PP = POWER POLE                            | WT = WITNESS                            |
| FND = FOUND                        | PRC = POINT OF REVERSE CURVATURE           | WW = WIRE FENCE                         |
| FOP = FOUND OPEN PIPE              | PRM = PERMANENT REFERENCE MONUMENT         | WV = WATER VALVE                        |
| FP = FLORIDA POWER CORP.           |  |   |

\*\*\* ABBREVIATIONS MAY ALSO BE CONCATENATED AS REQUIRED.  
\*\*\* OTHER COMMONLY RECOGNIZED AND/OR ACCEPTED ABBREVIATIONS ARE ALSO UTILIZED BUT NOT SPECIFIED HEREON.

**SURVEYS AND AS-BUILTS:**

- The contractor commissioned to do the site work is responsible for providing as-built surveys during the course of the project and at the end of the job.
- As-Built Surveys shall include but not be limited to the following:
  - Sanitary Sewer
  - Water (Domestic, Fire and Reclaim)
  - Stormwater Infrastructure
  - Grading
  - Building Tie-in and Finish Floor Elevation
- All surveys shall be conducted and provided in the following manner:
  - Sanitary Sewer:  
The sanitary sewer as-builts shall be provided to the engineer of record prior to any further construction above the underground utilities. The sewer as-builts shall include but not be limited to the following data:
    - Manhole locations, top elevations, inverts, etc.
    - Pipe run sizes, types and lengths
    - Lift station top, inflow inverts and outflow invert
  - Water:  
All water utility as-builts shall be provided to the engineer of record prior to any further construction above underground utilities. The water as-builts shall include but not be limited to the following data:
    - Meter & Backflow preventer locations and sizes
    - Pipe run sizes, types and lengths
    - Locations and types of fittings such as tees, gate valves, etc.
  - Stormwater Infrastructure:  
All underground stormwater as-builts shall be provided to the engineer of record prior to any further construction above the underground element. The stormwater infrastructure as-builts shall contain but not be limited to the following data:
    - Inlet, junction box or end section type and location including top elevations and all inverts
    - Pipe run sizes, types and lengths
    - Top of bank, bottom, water elevation, geometry, littoral shelf elevation, etc.
    - Control structure top and invert elevations.
    - Weir invert, width, shape and baffle dimensions.
  - Grading:  
All pertinent grading such as floodplain mitigation areas, wetland work, paving, etc. shall be provided. The grading as-builts shall include but not be limited to the following data:
    - Grades at high points and low points along pavement, swales and other flow lines.
    - Grades at immediate perimeter of building(s).
    - Grades at top and toe of slope of areas exceeding 5:1 slope.
    - Grades at wetland buffer areas.
    - Grades at perimeter of site.
    - Grades at all handicap ramps and handicap parking.
  - Building Tie-In and Finish Floor:  
All buildings shall be located on the survey. The as-builts shall include but not be limited to the following data:
    - Dimension of all corners of buildings to each other and to the surrounding property lines. The dimensions shall be perpendicular to the property line.
    - Finish floor elevation(s) of the buildings.
- All surveys shall be conducted by a licensed surveyor. No as-built information shall be provided to the engineer of record in any other form unless specifically approved by the engineer of record.
- All surveys shall be provided to the engineer of record signed and sealed with a digital copy in CAD form.
- Surveys may require specific criteria per local jurisdictional requirements. Contractor/surveyor shall coordinate such requirements with the local jurisdictions to assure all needed data is provided and is in the proper format.

**SHOP DRAWINGS NOTE:**  
CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ITEMS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:  
DRAINAGE STRUCTURES  
DRAINAGE PIPES  
WATER PIPES AND FITTINGS  
VALVES AND RELATED ITEMS  
SANITARY SEWER MANHOLES  
SANITARY SEWER PIPES, FITTINGS, ETC.  
PAVEMENT SPECIFICATIONS  
HANDRAILS AND GUARDRAILS  
FENCES, GATES AND RELATED HARDWARE  
ALL SHOP DRAWINGS MUST BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD PRIOR TO PURCHASE AND INSTALLATION OF THESE ITEMS.

ADDITIONALLY, SPECIFIC ITEMS CONTAINED WITHIN THE DETAIL PAGES HAVE BEEN FLAGGED INSTRUCTING THE CONTRACTOR TO PROVIDE A SHOP DRAWING. (SHOP DRAWINGS SHALL NOT BE LIMITED TO THE DESIGNATED ITEMS.)

SYMBOL FOR SHOP DRAWING REQUIREMENT: 

**CONTRACTOR PROCEDURE NOTES:**

- New Water Mains:  
After completion of installation of new water mains, pressure testing shall be performed in accordance with the local jurisdiction water system standards and specifications, sampling of new water mains shall conform with county public health unit requirements and results forwarded to the engineer. Under no circumstances shall a new water system be placed into service until the certification by the engineer has been completed and a release from county public health unit and/or the Florida Dept. of Environmental Regulation (or other applicable local authority) has been issued.
- Tree Barricades And Erosion Control Measures:  
Required tree barricades and erosion control measures must remain intact throughout the project duration. Encroachment into or failure to maintain these barricades will result in enforcement action, which may include citations and/or permit revocations.
- Runoff Management:  
All retention areas, storm sewer piping, storm sewer structures, etc. Must be in place as part of the first phase of construction. It is the responsibility of the contractor to accommodate positive drainage throughout construction to avoid flooding of the adjacent properties. Any flooding that may occur due to this work will be the sole responsibility of the contractor.
- Public Utility Connections:  
Any new public utilities to be constructed within the right of way as part of the project must be inspected and accepted by the local jurisdiction prior to private connection from the project.
- Electronically Stored Data:  
The use of electronically stored data (i.e. CAD files) whether transmitted via disk, direct modem, e-mail, digitization, etc. is intended for informational purposes only. This information is not to be used for construction. Contractor must utilize signed and sealed documents for construction.

**COORDINATION BETWEEN SITEWORK AND BUILDINGS:**

- Most projects have transitional construction items that include, but are not limited to the following:
  - Roof leader connections and locations
  - Drainage sleeves under walls
  - Necessity of a stem wall at grade transitions at the building(s)
  - Connection of the fire line into the building from the main
  - Transformer pads
  - Inverts of sanitary sewer piping at the building edge
  - Handicap ramps, walks, etc. leading to the entryways of a building
  - Protective pipe bollards
  - Dumpster enclosures attached to or near buildings
  - Loading areas with specific criteria
- During the bidding process, it shall be the sitework contractor's responsibility to either bid on or acknowledge transitional construction items. The bid shall include a specific description of each item. In cases where the sitework contractor does not provide any particular transitional item, he/she must acknowledge each item in writing attached to their bid.
- Some buildings have specific criteria for sitework adjacent to the buildings. In cases where there is a discrepancy between design items within the site plan and design items within the building plans, the contractor(s) must notify both the engineer of record and the building architect prior to conducting any work related to that item.
- Dumpster enclosures in general may be referenced both on the site plan and on the building plans. If the enclosure is referenced on the site plan, it is only to meet the permit requirements for the site plan. Contractor shall refer to the building plans for additional information as the architectural design of the dumpster enclosure is more specific for purposes of finish, gate design, footings, wind load requirements, etc.

**CONTRACTOR RESPONSIBILITIES:**

- It is the contractor's responsibility to perform a site visit accompanied by the architect and the owner(s) of the entire project area including building(s) and site immediately upon occupying the work area.
- Provide photographic and written correspondence detailing any areas that are not in first class condition that is proposed to remain.
- Existing surfaces and materials that are unbroken, non-cracked, non-rusting, without chips, without splinters, of texture matching its surroundings, with new appearing finishes and operating as originally designed or intended to operate which will remain in their present condition at the conclusion of the project shall remain in such condition at the conclusion of the project. Any damage or alteration to such materials must be repaired, replaced or refinished to the owner's / architect's satisfaction at the expense of the contractor.
- The contractor will be responsible for providing the owner with a complete project in first class condition meeting industry wide standards in quality, performance and workmanship throughout the entire project area including buildings and sitework (regardless of whether or not an area is specifically identified within the drawings and specifications)-unless a particular area has been described in the aforementioned photographs and written details describing pre-construction repair or damage.
- Existing buildings, utilities, landscaping, etc. designed to remain must be protected throughout the project duration. Any area of the buildings, utilities, etc. that become damaged must be repaired or replaced to the full satisfaction of the owner / architect at no additional cost.
- The owner, architect, engineer, surveyor and their agents assume no responsibility for their preparation, completeness nor accurateness of the locations of existing utilities above or below ground. The contractor should only use this information as a guide to the suspected location and type of these utilities including but not limited to water supply, storm sewer, electrical power, irrigation lines, fiber optic cables, fire alarm system cables, control wiring systems, sanitary sewer, gas, reclaimed water, television cables, telephone line, security wiring, site underground mechanical systems, etc.
- It is the contractor's responsibility to determine the specific location of underground services by careful hand excavation only. Alternative excavation procedures must be approved by the project engineer and the owner prior to beginning the work.
- Contractor shall replace or repair, per specifications, any and all damaged underground services at no additional cost to the owner.

|           |          |     |                           |
|-----------|----------|-----|---------------------------|
| REVISIONS | DATE     | BY  | DESCRIPTION               |
| 1         | 08/17/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2         | 08/17/15 | AVF | PER SFWMD COMMENTS        |
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|           |          |     |                           |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A duly licensed CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. SIGNATURE: \_\_\_\_\_ BY: AVF, HAND AND SEAL

STATE CERT. OF AUTH. #00069021  
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PROJECT #:  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

PROJECT:  
**MU-GROW**  
SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #:  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**C1.2**

**CIVIL NOTES AND PROCEDURES**

SCALE: NONE



**NOTE:**  
THIS PLAN IS PART OF AN OVERALL SET OF PLANS. THIS SHEET IS CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL OTHER DRAWINGS IN THE SET OF PLANS ON THE JOB SITE OR FOR BIDDING PURPOSES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SET OF PLANS TO ALL THOSE CONDUCTING WORK ON THIS PROJECT.

**NOTE:**  
IF DURING CONSTRUCTION ACTIVITIES ANY EVIDENCE OF HISTORIC RESOURCES, INCLUDING BUT NOT LIMITED TO ABORIGINAL OR HISTORIC POTTERY, PREHISTORIC STONE TOOLS, BONE OR SHELL TOOLS, HISTORIC TRASH PITS, OR HISTORIC BUILDING FOUNDATIONS, ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND THE FLORIDA DEPT. OF HISTORIC RESOURCES (STATE HISTORIC PRESERVATION OFFICER) AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON THE SITE.

**ARCHAEOLOGICAL NOTES:**  
i. During construction if something is uncovered, particularly of an archeological nature, that all work shall stop and that the state archeological office and the county are notified. (CP Chpt 2 FLU 1.2.14)  
ii. All sodded slopes over 4 to 1, shall be installed with sod pegs.  
iii. All first floor elevations (f1) shall be a minimum of 1' above the base flood elevation or as required by the LDC1104  
iv. Any off site disturbance shall be restored to the pre or better condition. (LDC 902.2)  
v. As applicable, the owner/developer will provide copies of the required permits from the respective governing agencies, prior to issuance of the SDP. (LDC 902.2.C)

**DEMOLITION LEGEND**

|  |  |
|--|--|
|  | SILT BARRIER   |
|  | BUILDING TO BE REMOVED - REFER TO ARCHITECTURAL PLANS FOR PARTIAL REMOVAL OF BUILDINGS                             |
|  | PAVEMENT OR OTHER VEHICULAR SURFACE TO BE REMOVED  |
|  | CONCRETE OR SIDEWALK TO BE REMOVED   |
|  | DEMOLITION NOTE FLAG - REFER TO DEMOLITION NOTES FOR SPECIFIC DESCRIPTIONS OF ITEMS                                |
|  | SINGLE TREE BARRICADE - REFER TO TREE BARRICADE DETAIL FOR LIMITS OF BARRICADES AS THEY RELATE TO INDIVIDUAL TREES |
|  | MULTIPLE TREE BARRICADE - CONFIGURATION WILL VARY DEPENDING UPON TREE LOCATIONS AND SIZES                          |

**EXISTING TREE LEGEND**

|  |   |
|--|---|
|  | 6" OAK<br>EXISTING OAK TREE (AS CALLED OUT)   |
|  | 6" PALM<br>EXISTING PALM TREE (AS CALLED OUT) |

**DEMOLITION NOTES**

Demolition of the site includes the removal/relocation of all existing structures within the project area, paving and base, utility lines (sanitary sewer, storm pipes, water lines, power poles, overhead and underground power and telephone cables, gas lines, trees, shrubs, etc.) and is not limited to what is shown. Refer to other plans for the treatment of existing features to remain.

All cavity and excavation resulting from removal of trees, shrubs, pipes, inlets, grease traps, sign and pole bases shall be filled with approved suitable material and compacted in 12" lifts to 95% of max. density.

On-site disposal of construction and demolition debris may occur only after written approval has been given in advance by the project engineer, the property owner, the local engineering department and the local governing jurisdiction. Additional approval may be required by the FDEP. Off-site disposal of such debris must occur in solid waste disposal facilities approved by the FDEP and the local governing jurisdiction.

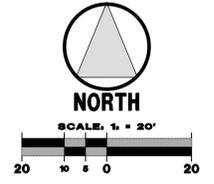
Prior to the removal of any buildings, pavement or other features, refer to the Phase 1 environmental report for additional information.

Asbestos removal shall be conducted by a licensed asbestos removal contractor and shall be regulated by the local Health Department.

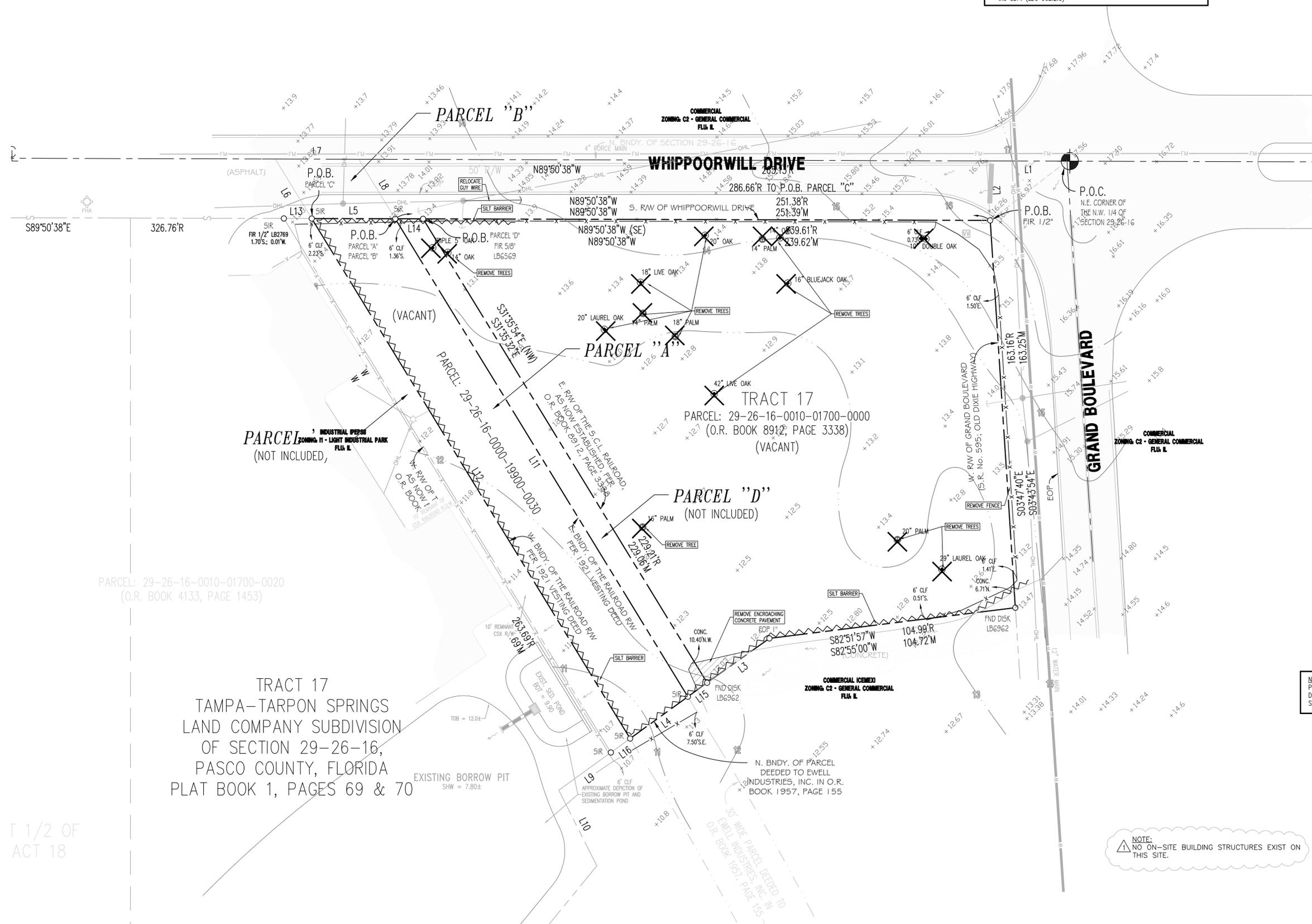
**NOTE:**  
NO ON-SITE BURNING IS ANTICIPATED OR PLANNED. CONTRACTOR SHALL COORDINATE WITH FIRE MARSHALL IN THE EVENT THIS CHANGES.

**NOTE:**  
PRIOR TO THE START OF THE CLEARING AND GRUBBING, OR ANY SOIL DISTURBANCE CONTACT PC STORMWATER MGMT AT 727-834-3611 FOR A SOIL EROSION AND SEDIMENT CONTROL, PRE-INSPECTION MEETING.

**NOTE:**  
NO ON-SITE BUILDING STRUCTURES EXIST ON THIS SITE.



**SITE DEMOLITION PLAN**  
SCALE: 1"=20'



REVISIONS

| NO. | DATE     | BY  | DESCRIPTION               |
|-----|----------|-----|---------------------------|
| 1   | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2   | 08/12/15 | AVF | PER SFWMD COMMENTS        |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A duly licensed PROFESSIONAL CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. MY HAND AND SEAL.

Gary A. Boucher, P.E. 22885

STATE CERT. OF AUTH. #00069622

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PROJECT: SWC GRAND BLVD AND WHIPPOORWILL DRIVE PASCO COUNTY, FLORIDA

**MU-GROW**

PROJECT #:  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**C2.1**

**I. GENERAL INFORMATION**

**A. SITE DESCRIPTION:**

PROJECT NAME: MU-GROW  
 SECTION/TOWNSHIP/RANGE: 29/26/16  
 LOCATION: SWC GRAND BLVD & WHIPPOORWILL  
 OWNER'S NAME: KD & AA PROPERTIES, LLC  
 OWNER'S ADDRESS: 2922 GRAND BLVD.  
 HOLIDAY, FL 34690

**B. PURPOSE AND WORK DESCRIPTION:**

NEW BUILDING, PARKING AND STORMWATER

**C. SEQUENCE OF MAJOR EVENTS:**

1. INSTALL STAKED SILT FENCE AS INDICATED ON THE CONSTRUCTION PLANS
2. CLEAR AND GRUB FOR PONDS TO BE USED AS SEDIMENTATION BASINS.
3. EXCAVATE POND FOR SEDIMENTATION TRAPS FOR SITE RUNOFFS.
4. BEGIN BUILDING CONSTRUCTION.
5. CONSTRUCT DIVERSION SWALES AROUND PERIMETER OF SITE TO PONDS, AS NECESSARY.
6. INSTALL STORM SEWER SYSTEM AND ITS SILTATION PROTECTION, UTILITIES AND OUTFALL STRUCTURES.
7. EXCAVATE THE REMAINDER OF THE PONDS INCLUDING REMOVAL OF SILT DEPOSITS.
8. STABILIZE STREETS AND PARKING AREAS.
9. CONSTRUCT CURB, BASE AND ASPHALT
10. COMPLETE FINAL SITE GRADING.
11. INSTALL PERMANENT LANDSCAPING ON SITE. REPAIR ANY WASHED OUT AREAS.
12. WHEN CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE PROTECTION DEVICES AND PLACE SOD AS NECESSARY.

**D. TIMING OF CONTROL MEASURES:**

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, STAKED SILT FENCING, STABILIZED CONSTRUCTION ENTRANCES AND SEDIMENT BASINS SHALL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 21 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASS AND MULCH WITHIN 14 DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY, THAT AREA SHALL BE STABILIZED WITH PERMANENT SOD. AFTER THE ENTIRE SITE STABILIZED, THE ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE TRAPS AND THE STAKED SILT FENCES SHALL BE REMOVED.

**II. POLLUTION PREVENTION CONTROLS**

**A. EROSION AND SEDIMENT CONTROLS**

**1. STABILIZATION PRACTICES:**

**WIND EROSION STABILIZATION**

THE CONTRACTOR SHALL DENUDE ONLY AREAS WHERE IT IS EXPECTED TO BE GRADED OR ALTERED WITH A TWO (2) WEEK TIME FRAME. ALL PVIOUS AREAS OF THE SITE INCLUDED IN GRADING THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE GRADED AND PREPARED WITH A COMBINATION OF SOD AND/OR SEEDING AND MULCHING. PAD AREAS CONSTRUCTED IN FUTURE WORK AREAS, WHERE GRADING IS COMPLETE, SHALL BE COMPLETELY SEEDDED AND MULCHED. AREAS WHERE CONSTRUCTION OPERATIONS WILL BE CONTINUOUS, FUGITIVE DUST SHALL BE MANAGED BY APPLYING A WATER SPRAY TO SATURATE THE SOIL ON A DAILY BASIS (OR MORE OFTEN IF NEEDED) TO MAINTAIN MINIMAL DUST TRANSPORT. FUGITIVE DUST SHALL BE MONITORED CONTINUOUSLY AND ADDITIONAL MEASURES MAY NEED TO BE TAKEN TO CONTROL OFF SITE TRANSPORT OF UNACCEPTABLE LEVELS OF DUST.

**TEMPORARY STABILIZATION**

THE TOPS OF SOILS STOCK PILES AND DISTURBED PORTIONS OF THE SITE, WHERE CONSTRUCTION ACTIVITY WILL CEASE FOR 21 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASS AND MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY. GRASS SEED SHALL BE AS MIXTURE OF 20 PARTS OF BERMUDA AND 80 PARTS OF PENSACOLA BAHIA. THE SEPARATE TYPES OF SEED USED SHALL BE THOROUGHLY DRY MIXED IMMEDIATELY BEFORE SOWING. SEED WHICH HAS BECOME WET SHALL NOT BE USED. THE MULCH MATERIAL USED SHALL NORMALLY BE DRY MULCH. DRY MULCH SHALL BE STRAW OR HAY CONSISTING OR OAT, RYE OR WHEAT STRAW, OR OF PANGOLA, PEANUT, COASTAL BERMUDA OR BAHIA GRASS HAY. ONLY UNDETERIORATED MULCH WHICH CAN BE READILY CUT INTO THE SOIL, SHALL BE USED. AREAS OF THE SITE WHICH ARE TO BE PAVED WILL BE TEMPORARILY STABILIZED BY APPLYING STABILIZATION AND BASE.

**PAVEMENT STABILIZATION**

DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY PERMANENTLY CEASES SHALL BE STABILIZED WITH SOD NO LATER THAN 14 DAY AFTER LAST CONSTRUCTION ACTIVITY.

**2. STRUCTURAL PRACTICES:**

**EROSION PROTECTION**

DURING THE CONSTRUCTION PHASES, APPROPRIATE PRACTICES INCLUDING BUT NOT LIMITED TO SILT FENCE BARRIERS, HAY BALES AND WATERING OR OTHER METHODS NECESSARY WILL BE IMPLEMENTED TO CONTROL FUGITIVE DUST.

**SEDIMENT BASINS**

THE STORM WATER MANAGEMENT AREAS (RETENTION AREAS) WILL SERVE AS SEDIMENT BASINS DURING THE CONSTRUCTION PERIOD. AT THE CONTRACTOR'S DISCRETION, THE SEDIMENT BASINS WILL BE CONSTRUCTED TO THE DESIGN CROSS-SECTION OR A MINIMUM OF 2-FOOT BELOW EXISTING GROUND TO ALLOW THE SILT TO BE COLLECTED AND REMOVED PRIOR TO COMPLETION OF THE GRADING.

**3. STORM WATER MANAGEMENT:**

STORM WATER DRAINAGE WILL BE PROVIDED BY A CURB, STORM WATER AND CATCH BASINS SYSTEM FOR THE DEVELOPED AREAS. THE AREAS NOT DEVELOPED SHALL BE GRADED TO LESS THAN 2% SLOPES AND HAVE PERMANENT SEEDING OR PLANTINGS. WHEN CONSTRUCTION IS COMPLETE THE SITE WILL DRAIN TO STORM WATER PONDS THAT WERE UTILIZED AS THE TEMPORARY SEDIMENT BASINS DURING THE CONSTRUCTION PROCESS. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED FORM THE SEDIMENT BASINS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSTRUCT AL RETENTION/DETENTION AREAS IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.

**B. SPECIFIED OTHER CONTROLS**

**1. WASTE DISPOSAL:**

**WASTE MATERIALS**

ALL WASTE MATERIAL SHALL BE COLLECTED AND CONTAINED IN A CONTROLLED AREAS PURSUANT TO STATE AND LOCAL SOLID WASTE REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS GENERATED FROM CONSTRUCTION IS TO BE REMOVED FORM THE SITE AND DISPOSED OF APPROPRIATELY. NO CONSTRUCTION MATERIAL SHALL BE BURIED ON SITE. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE ON-SITE OFFICE TRAILER. THE CONSTRUCTION MANAGER RESPONSIBLE FOR THE DAILY SITE OPERATIONS SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

**HAZARDOUS WASTE**

IF ENCOUNTERED, ALL WASTE MATERIAL SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY STATE AND LOCAL REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

**SANITARY WASTE**

ALL SANITARY WASTE SHALL BE COLLECTED FORM PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE AND LOCAL CODES AND REGULATIONS.

**2. OFF-SITE VEHICLE TRACKING:**

STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED TO HELP REDUCE OFF-SITE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREETS SHALL BE CLEANED AS NEEDED TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL SHALL BE COVERED WITH A TARPULIN AT ALL TIMES.

**III. MAINTENANCE INSPECTION PROCEDURES**

**EROSION AND SEDIMENT CONTROL - INSPECTION AND MAINTENANCE PRACTICES**

THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES SHALL BE USED TO CONTROL EROSION AND SEDIMENT:

1. NO MORE THAN ONE HALF OF THE SITE IS TO BE DENUDED AT ONE TIME.
2. ALL CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR'S REPRESENTATIVE AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT WITH A RAINFALL AMOUNT OF 1/2-INCH OR GREATER.
3. ALL CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER AND REPAIRED AS NECESSARY WITHIN 24 HOURS OF REPORT.
4. BUILT UP SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. SILT FENCE SHALL BE INSPECTED REGULARLY FOR DEPTH OF SEDIMENT AND TEARS AND TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS AND TO SEE IF THE POST REMAIN FIRMLY IN THE GROUND.
6. THE SEDIMENT BASINS SHALL BE INSPECTED FOR DEPTH OF SEDIMENT. BUILT-UP SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES 10% OF THE DESIGN CAPACITY AND AT THE END OF THE PROJECT.
7. TEMPORARY AND PERMANENT GRASSING, MULCHING AND SODDING SHALL BE INSPECTED FOR BARE SPOTS, WASH-OUTS AND CONDITION.
8. A MAINTENANCE INSPECTION REPORT SHALL BE MADE AFTER EACH INSPECTION BY THE CONTRACTOR AND SHALL BE KEPT IN AN ACTIVE LOG THAT IS READILY AVAILABLE AT THE JOB SITE.
9. EITHER THE SITE SUPERINTENDENT OR HIS DESIGNEES SHALL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, REPAIR ACTIVITIES AND FOR COMPLETION OF THE INSPECTION AND MAINTENANCE REPORTS.

PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL RECEIVE TRAINING AND INSTRUCTION FROM THE SITE SUPERINTENDENT AND BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION CONTROLS USED ON-SITE IN GOOD WORKING ORDER.

**IV. SPILL PREVENTION**

**A. MATERIAL MANAGEMENT PRACTICES**

THE FOLLOWING ARE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.

**GENERAL MANAGEMENT:**

THE FOLLOWING PRACTICES SHALL BE FOLLOWED DURING THE CONSTRUCTION PROJECT TO MAINTAIN ORDER:

EFFORTS SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT TO COMPLETE THE PROJECT. ALL MATERIALS STORED ON SITE SHALL KEPT IN A NEAT ORDERLY MANNER IN APPROPRIATE CONTAINERS AND, IF POSSIBLE AND APPROPRIATE, UNDER A ROOF, OR IN A CONTAINER OR ENCLOSURE.

PRODUCTS SHALL BE KEPT IN THE ORIGINAL MANUFACTURER'S LABELED CONTAINER. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS IT IS RECOMMENDED TO DO SO BY THE MANUFACTURER. WHENEVER POSSIBLE, ALL OF THE PRODUCT SHALL BE USED BEFORE DISPOSING OF THE CONTAINER. EMPTY CONTAINERS SHALL BE DISPOSED PROPERLY ON A REGULAR BASIS. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED. THE SITE SUPERINTENDENT SHALL INSPECT THE SITE DAILY FOR PROPER USE AND DISPOSAL OF CONSTRUCTION MATERIAL.

**HAZARDOUS PRODUCTS:**

THE FOLLOWING PRACTICES ARE TO BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE. ORIGINAL LABELS AND MATERIAL SAFETY INFORMATION SHALL BE RETAINED, AS THEY CONTAIN IMPORTANT PRODUCT INFORMATION. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S AS WELL AS LOCAL AND STATE RECOMMENDED DISPOSAL METHODS SHALL BE FOLLOWED.

**PETROLEUM PRODUCTS:**

ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE POSSIBILITY OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON THE SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

**FERTILIZERS:**

FERTILIZERS USED ON-SITE SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNT RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, THE FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE SHALL BE IN A COVERED SHED. THE CONTENTS ON ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

**PAINTS:**

ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT BEING USED. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM WATER SYSTEM OR TO THE GROUND, BUT MUST BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

**CONCRETE TRUCKS:**

THE CONTRACTOR SHALL DESIGNATE AN AREA FOR THE DISCHARGE OF SURPLUS CONCRETE OR DRUM WASH WATER AND SHALL INSTALL A CONTAINMENT BERM AROUND THE AREA TO PREVENT RUNOFF TO THE SITE. HARDENED CONCRETE WASTE SHALL BE DISPOSED OF BY CONTRACTOR UPON COMPLETION OF THE PROJECT.

**B. SPILL CONTROL PRACTICES**

IN ADDITION TO THE GENERAL SITE AND MATERIAL MANAGEMENT PRACTICES PRESENTED IN PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP.

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND THE CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEAN UP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON THE SITE. EQUIPMENT AND MATERIAL SHALL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, GLOVES, GOGGLES, RAGS, SHOVELS, SAND, SAWDUST AND PLASTIC AND METAL TRASH CONTAINERS.

ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER THEY ARE DISCOVERED.

SPILLS SHALL BE KEPT WELL-VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FORM CONTACT WITH HAZARDOUS SUBSTANCES.

SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE STATE OF LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

THE SPILL PREVENTION PLAN SHALL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT SPILLS FROM REOCCURRING AND THE PROPER CLEANUP PROCEDURES FOR FUTURE USE. A DESCRIPTION OF THE SPILL, ITS CAUSE AND THE CLEANUP MEASURES USED SHALL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAILY SITE OPERATION SHALL BE THE SPILL PREVENTION AND CLEAN UP COORDINATOR. HE OF SHE SHALL DESIGNATE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEAN UP TRAINING. THESE INDIVIDUALS SHALL EACH BECOME RESPONSIBLE FOR T A PARTICULAR PHASE(S) OF PREVENTION AND CLEAN UP. THE NAMES OF THE RESPONSIBLE SPILL PERSONNEL SHALL BE POSTED IN THE MATERIAL STORAGE AREA OR IN THE OFFICE TRAILER.

**V. NON-STORMWATER DISCHARGE**

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FORM THE SITE DURING THE CONSTRUCTION PERIOD:

1. WATER FROM WATER MAIN FLUSHING.
2. PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
3. UNCONTAMINATED GROUNDWATER (FROM EXCAVATION DEWATERING).

CLEAN DISCHARGES FROM WELLPOINTING MAY BE DISCHARGED DIRECTLY TO COMPLETED/CONNECTED STORM SEWER AND/OR COMPLETED AND STABILIZED STORMWATER OUTFALLS. ALL OTHER DISCHARGES SHALL BE DIRECTED TO SEDIMENT BASINS PRIOR TO DISCHARGE.

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES SHALL NOT OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

- |             |             |                    |
|-------------|-------------|--------------------|
| FERTILIZERS | DETERGENTS  | CLEANING SOLVENTS  |
| TAR         | SAND        | MASONRY BLOCKS     |
| STONE       | WOOD        | ROOFING SHINGLES   |
| GLASS       | METAL STUDS | PETROLEUM PRODUCTS |
| PAINT       | CONCRETE    |                    |

**VI. COMPLIANCE AND CERTIFICATIONS**

**NOTICE OF TERMINATION:**

A NOTICE OF TERMINATION SHALL BE SUBMITTED TO THE EPA, OR ITS DESIGNEE, AFTER THE CONSTRUCTION HAS BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION.

**REGULATORY COMPLIANCE:**

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS:

THE STORM WATER POLLUTION PREVENTION PLAN REFLECTS THE LOCAL GOVERNING JURISDICTION AND THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWM) REQUIREMENTS FOR STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL AS ESTABLISHED BY THE LOCAL JURISDICTION'S LAND DEVELOPMENT CODE AND THE FLORIDA ADMINISTRATIVE CODE, CHAPTER 40D-4 AND 40D-40. TO ENSURE COMPLIANCE, THIS PLAN WAS PREPARED IN ACCORDANCE WITH SWFWM WITH SWFWM'S "BASIS OF REVIEW FOR SURFACE WATER MANAGEMENT PERMIT APPLICATIONS WITHIN THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT".

**PREPARER'S CERTIFICATION:**

POLLUTION PREVENTION PLAN CERTIFICATION:

TO THE BEST OF MY KNOWLEDGE, 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 GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSON DESIGNATED TO MANAGE THE SYSTEM, OR THOSE PERSON DIRECTLY RESPONSIBLE FOR GATHERING 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 FINES AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OWNER: \_\_\_\_\_

NAME: \_\_\_\_\_ TITLE \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**CONTRACTOR'S CERTIFICATION**

I CERTIFY UNDER PENALTY OF LAW...

| SIGNATURE                                      | COMPANY NAME & ADDRESS                                 | RESPONSIBLE FOR:  |
|--|--|---|
| SIGNATURE: _____<br>NAME: _____<br>DATE: _____ | COMPANY: _____<br>ADDRESS: _____<br>PHONE: ( ) - _____ | GENERAL CONTRACTOR  |
| SIGNATURE: _____<br>NAME: _____<br>DATE: _____ | COMPANY: _____<br>ADDRESS: _____<br>PHONE: ( ) - _____ | TEMPORARY AND PERMANENT STABILIZATION                               |
| SIGNATURE: _____<br>NAME: _____<br>DATE: _____ | COMPANY: _____<br>ADDRESS: _____<br>PHONE: ( ) - _____ | STABILIZED CONSTRUCTION ENTRANCE, EARTH BERMS AND SEDIMENT BASIN(S) |

SIGNATURE: \_\_\_\_\_

OWNER

|           |          |                           |
|-----------|----------|---------------------------|
| REVISIONS | DATE     | DESCRIPTION               |
| 1         | 08/12/15 | PER PASCO COUNTY COMMENTS |
| 2         | 08/12/15 | PER SWFWM COMMENTS        |
|           |          |                           |
|           |          |                           |
|           |          |                           |
|           |          |                           |
|           |          |                           |
|           |          |                           |
|           |          |                           |

HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A LICENSED PROFESSIONAL CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. I HAVE NOT BEEN CONVICTED OF ANY CRIME BY ANY HAND AND SEAL.

Garry A. Baucher, P.E. #2085

STATE CERT. OF AUTH. #0009022

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 www.ozonavehicle.com

PROJECT: MU-GROW  
 SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
 PASCO COUNTY, FLORIDA

PROJECT #: -  
 ORIG. DATE: 01/05/15  
 DRAWN BY: AVF  
 SCALE: AS SHOWN

SHEET #:

**B1.1**

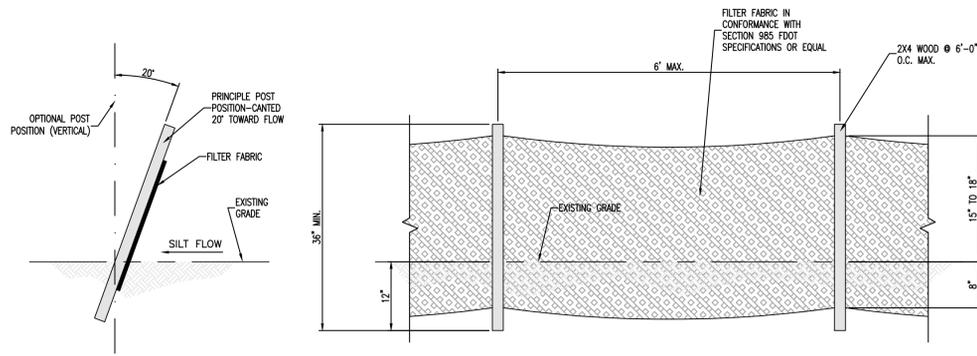
**CONSTRUCTION SURFACE WATER MANAGEMENT**

SCALE: NONE

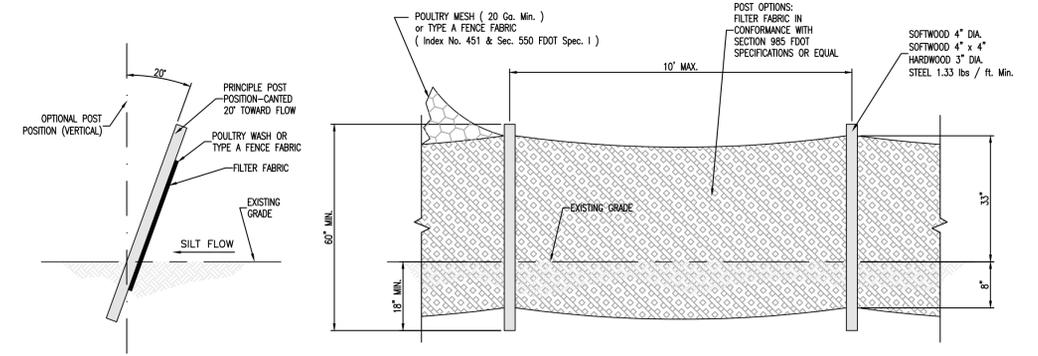


**NOTES FOR SILT FENCES:**

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt Fence shall be in accordance with Chart I.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, silt fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt fence to be paid for under the contract unit price for Staked Silt Fence, (L.F. ).



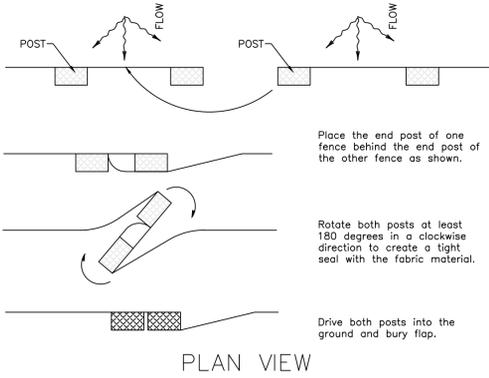
**1 TYPE III SILT FENCE DETAIL**  
NTS



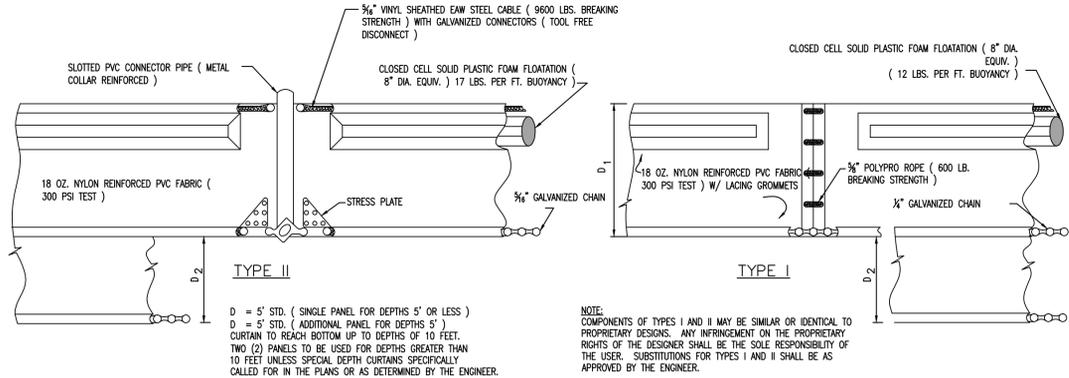
**2 TYPE IV SILT FENCE DETAIL**  
NTS

NOTE: SILT FENCE SHALL NOT BE TRENCHED IN WHERE ADJACENT TO TREES DESIGNATED TO REMAIN. THE SILT FENCE MUST BE SECURED THROUGH THE PLACEMENT OF FILL OVER THE LOWER LIP OF THE BARRIAGE IN THESE AREAS.

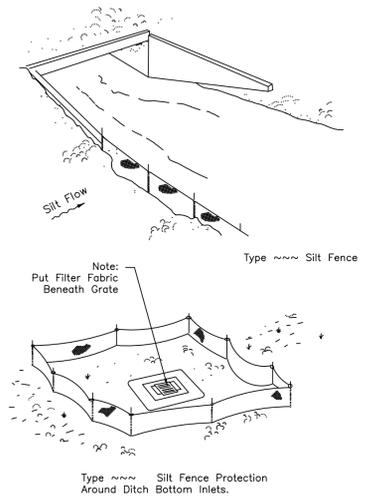
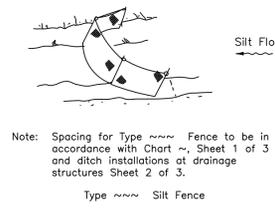
NOTE: SILT FENCE SHALL NOT BE TRENCHED IN WHERE ADJACENT TO TREES DESIGNATED TO REMAIN. THE SILT FENCE MUST BE SECURED THROUGH THE PLACEMENT OF FILL OVER THE LOWER LIP OF THE BARRIAGE IN THESE AREAS.



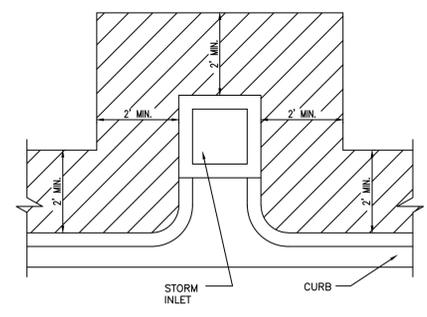
**JOINING TWO SILT FENCES**  
NTS



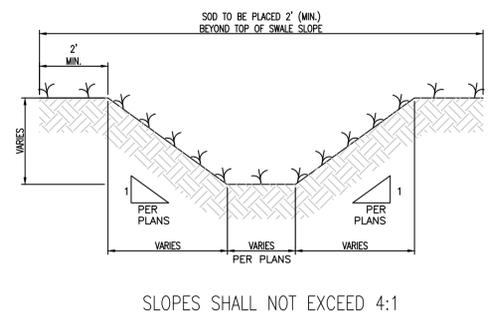
**3 FLOATING TURBIDITY BARRIERS**  
NTS



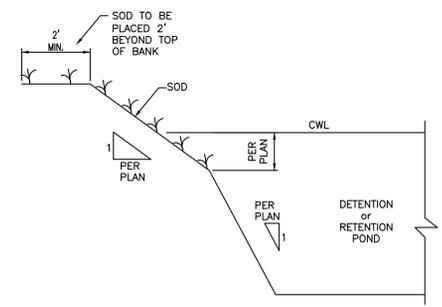
**TYPICAL SILT FENCE APPLICATIONS**  
NTS



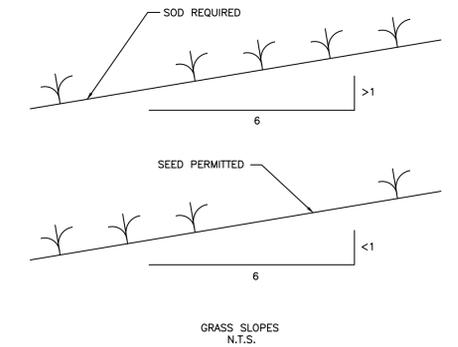
**TYPICAL CURB AND INLET SOD**  
NTS



**TYPICAL SWALE SECTION**  
NTS



**TYPICAL POND SECTION**  
NTS



**TYPICAL SLOPE - SEED vs. SOD**  
NTS

**BEST MANAGEMENT PRACTICES (BMP) GUIDELINES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BMP DEVICES THROUGHOUT THE DURATION OF ALL CONSTRUCTION ACTIVITY OR AS INSTRUCTED BY THE ENGINEER OF RECORD.
2. PRIOR TO ANY EARTH MOVING OPERATIONS, THE CONTRACTOR SHALL INSTALL BMP DEVICES A, B AND C IN THE LOCATIONS SHOWN ON THE PLAN.
3. ALL GRASSING BY EITHER SEED OR SOD SHALL BE INSTALLED AS SOON AS PRACTICALLY POSSIBLE UPON THE COMPLETION OF FINAL GRADING ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL GRASSING IN A HEALTHY GROWING ENVIRONMENT UNTIL ACCEPTANCE BY THE ENGINEER OF RECORD.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF WIND AND DUST DURING ALL PHASES OF CONSTRUCTION ACTIVITY BY USING WATER TRUCKS, WIND FENCING OR OTHER DEVICES AS APPROVED BY THE ENGINEER OF RECORD.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO SAFELY STORE EQUIPMENT, FUEL, OIL AND OTHER HAZARDOUS MATERIALS AND DEVICES IN A MANNER TO PREVENT GREASE, OILS, FUEL AND OTHER HAZARDOUS SUBSTANCES FROM CONTAMINATING THE STORMWATER MANAGEMENT AND COLLECTION SYSTEMS AND PRESERVATION AREAS.
6. ALL PONDS SHALL BE SODDED FROM THE NORMAL WATER LEVEL TO 2' BEYOND THE TOP OF BANK.
7. SOD A 2' WIDE STRIP BEHIND ALL CURBING AND EDGES OF PAVEMENT WHERE CURB IS NOT PRESENT. (MINIMUM REQUIREMENT - REFER TO ADDITIONAL PLANS FOR EXTENTS OF SURFACE TREATMENT)
8. SOD AROUND ALL INLETS, JUNCTION BOXES, ETC. AND GRASS ALL SWALES.

NOTE: ALL EROSION CONTROL AND BEST MANAGEMENT PRACTICES SHALL BE CONDUCTED PER THE FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL (LATEST EDITION) AND FDOT INDEX #106.

DETAILS CONTAINED HEREIN ARE GENERAL. SOME DETAILS MAY NOT BE RELEVANT TO THE PROJECT BUT ARE PROVIDED IN THE EVENT SUCH CONDITIONS ARISE DURING THE COURSE OF CONSTRUCTION.

| REVISIONS | DATE     | BY  | DESCRIPTION               |
|-----------|----------|-----|---------------------------|
| 1         | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2         | 08/12/15 | AVF | PER SWFWMD COMMENTS       |

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Gary A. Baucher, PE# 22885

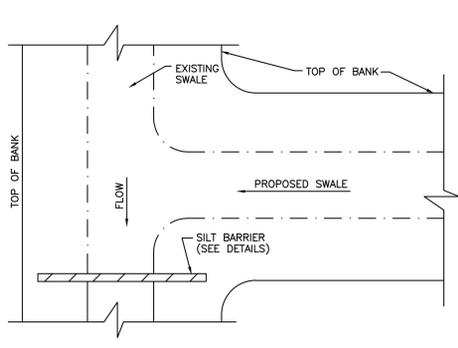
PROJECT: MU-GROW  
SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #: -  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

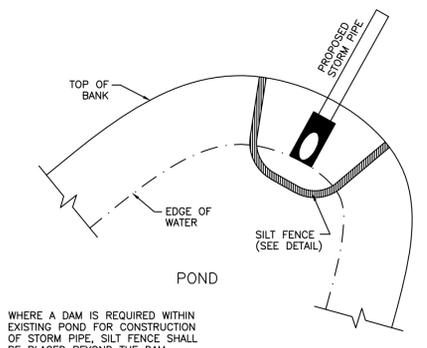
SHEET #:  
**B3.1**

**SD** = SHOP DRAWING REQUIRED REFER TO STANDARD NOTES FOR CONDITIONS

**BEST MANAGEMENT DETAILS**  
SCALE: NONE

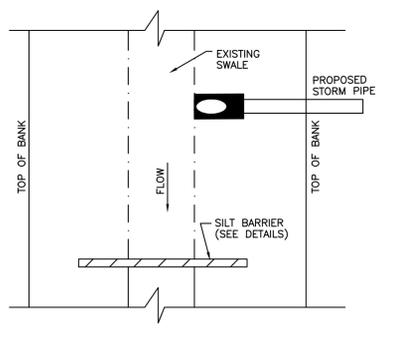


**A SILT BARRIER APPLICATION AT SWALE INTERSECTION**  
NTS

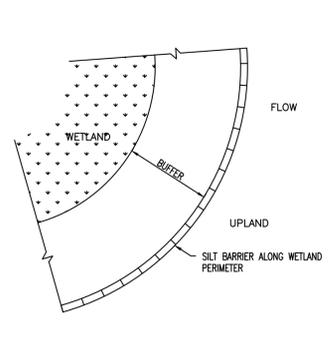


**B SILT BARRIER APPLICATION AT POND STORM PIPE**  
NTS

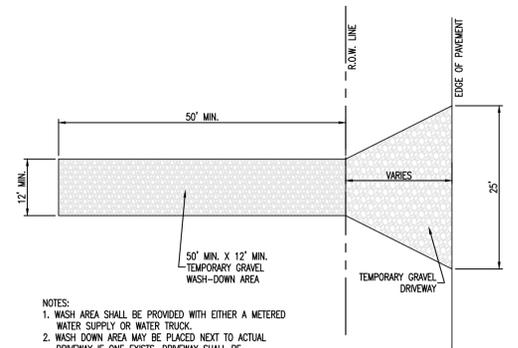
WHERE A DAM IS REQUIRED WITHIN EXISTING POND FOR CONSTRUCTION OF STORM PIPE, SILT FENCE SHALL BE PLACED BEYOND THE DAM.



**C SILT BARRIER APPLICATION AT SWALE STORM PIPE**  
NTS

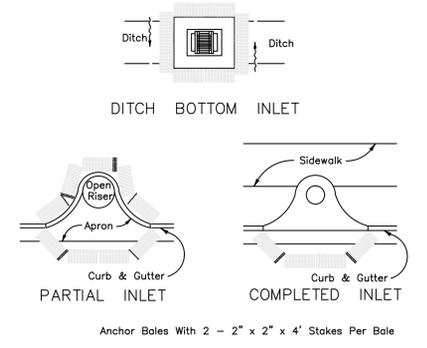


**D WETLAND SILT BARRIER**  
NTS



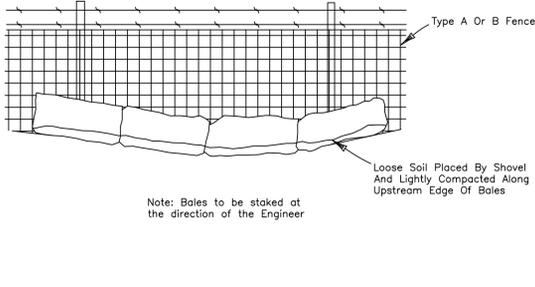
**E WASH-DOWN AREA**  
NTS

NOTES:  
1. WASH AREA SHALL BE PROVIDED WITH EITHER A METERED WATER SUPPLY OR WATER TRUCK.  
2. WASH DOWN AREA MAY BE PLACED NEXT TO ACTUAL DRIVEWAY IF ONE EXISTS. DRIVEWAY SHALL BE MAINTAINED CLEAR OF DEBRIS, SEDIMENTS, ETC.

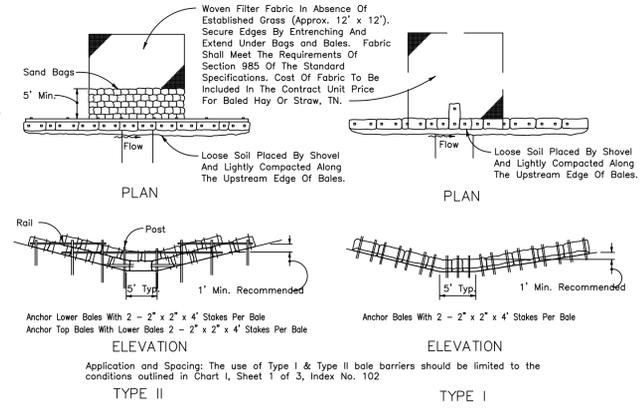


**F PROTECTION AROUND INLETS OR SIMILAR STRUCTURES**  
NTS

Anchor Bales With 2 - 2" x 2" x 4" Stakes Per Bale

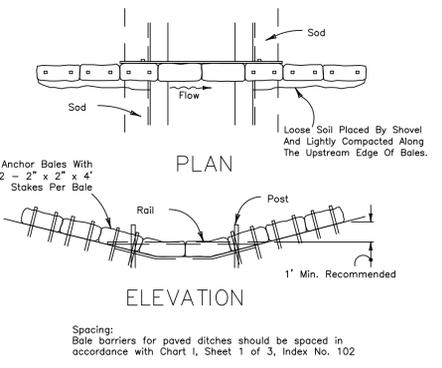


**G BALES BACKED BY FENCE**  
NTS



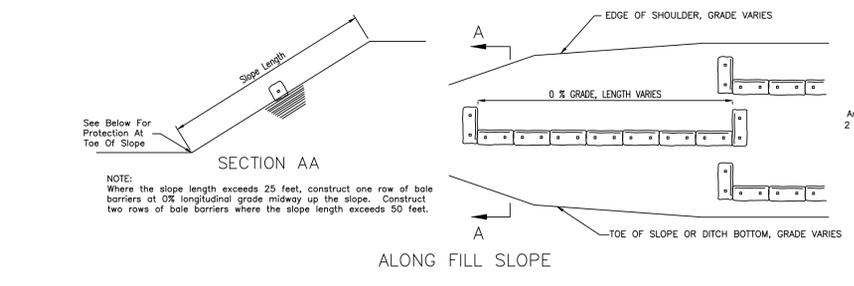
**H BARRIER FOR UNPAVED DITCHES**  
NTS

Application and Spacing: The use of Type I & Type II bale barriers should be limited to the conditions outlined in Chart 1, Sheet 1 of 3, Index No. 102

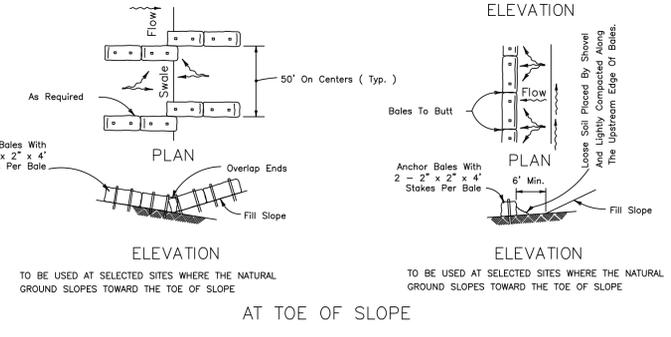


**J BARRIER FOR PAVED DITCH**  
NTS

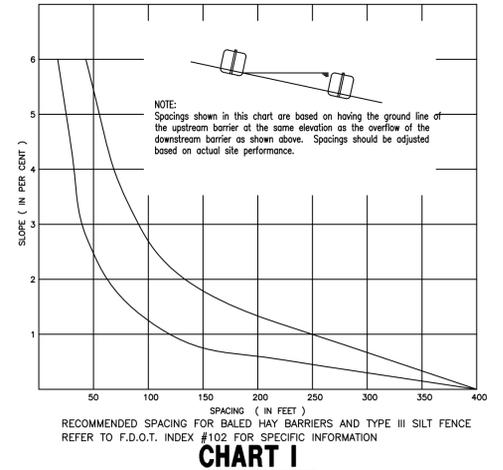
Spacing: Bale barriers for paved ditches should be spaced in accordance with Chart 1, Sheet 1 of 3, Index No. 102



**K BARRIERS FOR FILL SLOPES**  
NTS



- NOTES FOR BALED HAY OR STRAW BARRIERS
- Type I and II Barriers should be spaced in accordance with Chart 1.
  - Hay bales shall be trenched 3" to 4" and anchored with two (2) 1" x 2" (or 1" dia.) x 4" wood stakes. Stakes of other material or space providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
  - Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if approved by the Engineer.
  - Adjacent bales shall be butted firmly together. Unavoidable gaps shall be plugged with hay or straw to prevent silt from passing.
  - Bales to be paid for under the contract unit price for Baled Hay or Straw, EA. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sand bags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.



| REVISIONS | DATE | BY  | DESCRIPTION               |
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| 08/12/15  | AVF  | AVF | PER SWFWMD COMMENTS       |

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1. HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. REGISTERED BY MY HAND AND SEAL.

Gary A. Baucher, P.E. #20885

PROJECT: -

ORIG. DATE: 01/05/15

DRAWN BY: AVF

SCALE: AS SHOWN

PROJECT: -

**MU-GROW**

SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #: -

ORIG. DATE: 01/05/15

DRAWN BY: AVF

SCALE: AS SHOWN

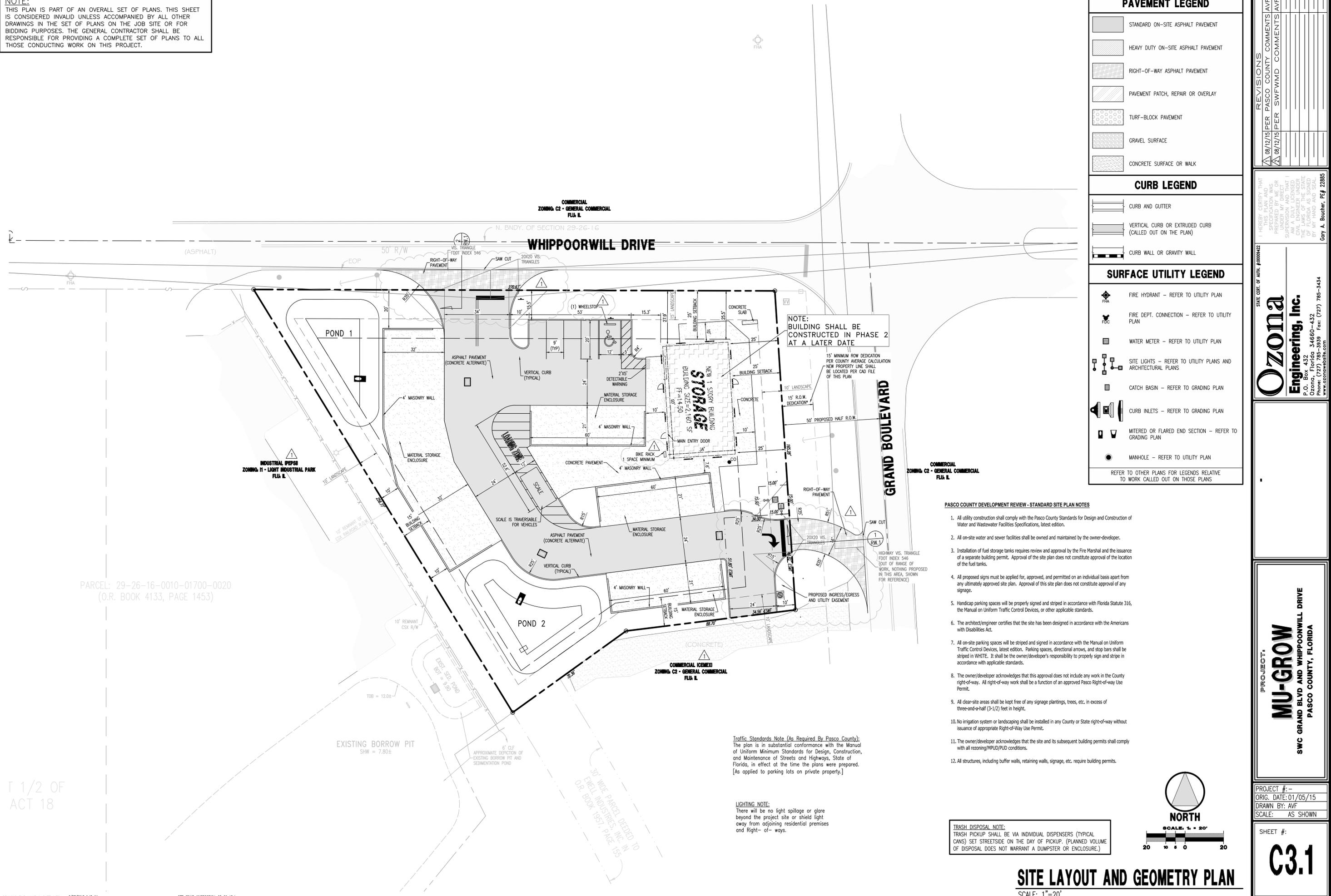
SHEET #:

**B3.2**

**SD** = SHOP DRAWING REQUIRED REFER TO STANDARD NOTES FOR CONDITIONS

**BEST MANAGEMENT DETAILS**  
SCALE: NONE

**NOTE:**  
THIS PLAN IS PART OF AN OVERALL SET OF PLANS. THIS SHEET IS CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL OTHER DRAWINGS IN THE SET OF PLANS ON THE JOB SITE OR FOR BIDDING PURPOSES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SET OF PLANS TO ALL THOSE CONDUCTING WORK ON THIS PROJECT.



PARCEL: 29-26-16-0010-01700-0020  
(O.R. BOOK 4133, PAGE 1453)

T 1/2 OF  
ACT 18

| PAVEMENT LEGEND   |  |
|---|--|
| [Pattern]   | STANDARD ON-SITE ASPHALT PAVEMENT                            |
| [Pattern]   | HEAVY DUTY ON-SITE ASPHALT PAVEMENT                          |
| [Pattern]   | RIGHT-OF-WAY ASPHALT PAVEMENT                                |
| [Pattern]   | PAVEMENT PATCH, REPAIR OR OVERLAY                            |
| [Pattern]   | TURF-BLOCK PAVEMENT  |
| [Pattern]   | GRAVEL SURFACE   |
| [Pattern]   | CONCRETE SURFACE OR WALK                                     |
| CURB LEGEND   |  |
| [Symbol]  | CURB AND CUTTER  |
| [Symbol]  | VERTICAL CURB OR EXTRUDED CURB (CALLED OUT ON THE PLAN)      |
| [Symbol]  | CURB WALL OR GRAVITY WALL                                    |
| SURFACE UTILITY LEGEND  |  |
| [Symbol]  | FIRE HYDRANT - REFER TO UTILITY PLAN                         |
| [Symbol]  | FIRE DEPT. CONNECTION - REFER TO UTILITY PLAN                |
| [Symbol]  | WATER METER - REFER TO UTILITY PLAN                          |
| [Symbol]  | SITE LIGHTS - REFER TO UTILITY PLANS AND ARCHITECTURAL PLANS |
| [Symbol]  | CATCH BASIN - REFER TO GRADING PLAN                          |
| [Symbol]  | CURB INLETS - REFER TO GRADING PLAN                          |
| [Symbol]  | MITERED OR FLARED END SECTION - REFER TO GRADING PLAN        |
| [Symbol]  | MANHOLE - REFER TO UTILITY PLAN                              |
| REFER TO OTHER PLANS FOR LEGENDS RELATIVE TO WORK CALLED OUT ON THOSE PLANS |  |

| REVISIONS | DATE     | BY  | DESCRIPTION               |
|-----------|----------|-----|---------------------------|
| 1         | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2         | 08/12/15 | AVF | PER SWFWMD COMMENTS       |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. MY HAND AND SEAL THIS 27th DAY OF AUGUST, 2015.  
GARY A. BOUCHER, P.E. 22885

STATE CERT. OF AUTH. #00606022

**Ozona Engineering, Inc.**  
P.O. Box 432  
Ozona, Florida 34660-432  
Phone: (727) 785-3939 Fax: (727) 785-3434  
www.ozonaeengineering.com

PROJECT: MU-GROW  
SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #:-  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**C3.1**

**NOTE:**  
BUILDING SHALL BE CONSTRUCTED IN PHASE 2 AT A LATER DATE

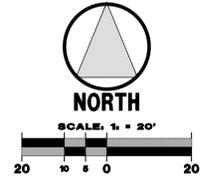
**PASCO COUNTY DEVELOPMENT REVIEW - STANDARD SITE PLAN NOTES**

- All utility construction shall comply with the Pasco County Standards for Design and Construction of Water and Wastewater Facilities Specifications, latest edition.
- All on-site water and sewer facilities shall be owned and maintained by the owner-developer.
- Installation of fuel storage tanks requires review and approval by the Fire Marshal and the issuance of a separate building permit. Approval of the site plan does not constitute approval of the location of the fuel tanks.
- All proposed signs must be applied for, approved, and permitted on an individual basis apart from any ultimately approved site plan. Approval of this site plan does not constitute approval of any signage.
- Handicap parking spaces will be properly signed and striped in accordance with Florida Statute 316, the Manual on Uniform Traffic Control Devices, or other applicable standards.
- The architect/engineer certifies that the site has been designed in accordance with the Americans with Disabilities Act.
- All on-site parking spaces will be striped and signed in accordance with the Manual on Uniform Traffic Control Devices, latest edition. Parking spaces, directional arrows, and stop bars shall be striped in WHITE. It shall be the owner/developer's responsibility to properly sign and stripe in accordance with applicable standards.
- The owner/developer acknowledges that this approval does not include any work in the County right-of-way. All right-of-way work shall be a function of an approved Pasco Right-of-Way Use Permit.
- All clear-site areas shall be kept free of any signage plantings, trees, etc. in excess of three-and-a-half (3-1/2) feet in height.
- No irrigation system or landscaping shall be installed in any County or State right-of-way without issuance of appropriate Right-of-Way Use Permit.
- The owner/developer acknowledges that the site and its subsequent building permits shall comply with all rezoning/MPUD/PUD conditions.
- All structures, including buffer walls, retaining walls, signage, etc. require building permits.

**Traffic Standards Note (As Required By Pasco County):**  
The plan is in substantial conformance with the Manual of Uniform Minimum Standards for Design, Construction, and Maintenance of Streets and Highways, State of Florida, in effect at the time the plans were prepared. [As applied to parking lots on private property.]

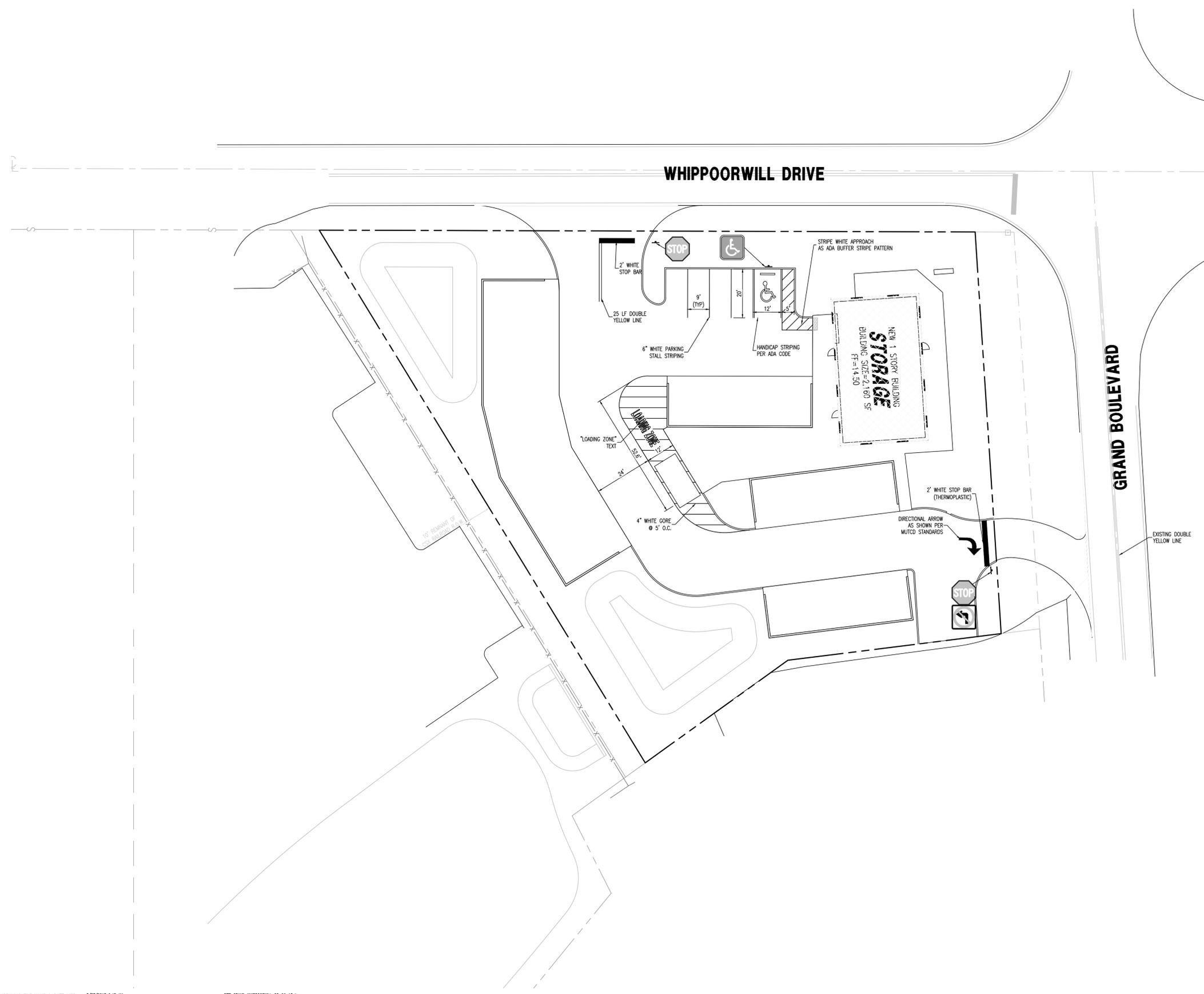
**LIGHTING NOTE:**  
There will be no light spillage or glare beyond the project site or shield light away from adjoining residential premises and Right-of-ways.

**TRASH DISPOSAL NOTE:**  
TRASH PICKUP SHALL BE VIA INDIVIDUAL DISPENSERS (TYPICAL CANS) SET STREETSIDE ON THE DAY OF PICKUP. (PLANNED VOLUME OF DISPOSAL DOES NOT WARRANT A DUMPSTER OR ENCLOSURE.)



**SITE LAYOUT AND GEOMETRY PLAN**  
SCALE: 1"=20'

**NOTE:**  
 THIS PLAN IS PART OF AN OVERALL SET OF PLANS. THIS SHEET IS CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL OTHER DRAWINGS IN THE SET OF PLANS ON THE JOB SITE OR FOR BIDDING PURPOSES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SET OF PLANS TO ALL THOSE CONDUCTING WORK ON THIS PROJECT.



**STRIPING LEGEND**

|  |  |
|--|--|
|  | STANDARD PARKING STALL DIMENSIONED FROM CENTER OF STRIPE TO CENTER OF STRIPE       |
|  | DIRECTIONAL ARROWS   |
|  | HANDICAP PARKING MARKER  |
|  | PARKING QUANTITY DESIGNATION ON THE PLAN - COUNTED PER PARKING ROW BETWEEN ISLANDS |
|  | 2' WHITE STOP BAR WITH DOUBLE YELLOW STRIPE  |
|  | TRAFFIC SIGN AND POST  |
|  | 5' WIDE PEDESTRIAN CROSSWALK W/ 12" STRIPES AT 36" ON CENTER                       |

ALL STRIPING RELATIVE TO HANDICAP FACILITIES SHALL BE PER ADA CODE  
 REFER TO RIGHT-OF-WAY DETAILS FOR ANY STRIPING AND MARKING IN THE RIGHT-OF-WAY

**SIGN LEGEND**

|  |   |
|--|---|
|  | HANDICAP PARKING SIGN (REFER TO DETAIL) |
|  | STOP SIGN: R1-1 (30X30)                 |
|  | DO NOT ENTER SIGN: R5-1 (30X30)         |
|  | NO RIGHT TURN SIGN: R3-1 (30X30)        |
|  | NO LEFT TURN SIGN: R3-2 (30X30)         |

ALL TRAFFIC CONTROL SIGNAGE SHALL BE PER MUTCD STANDARDS  
 REFER TO RIGHT-OF-WAY DETAILS FOR ANY SIGNAGE IN THE RIGHT-OF-WAY

**REVISIONS**

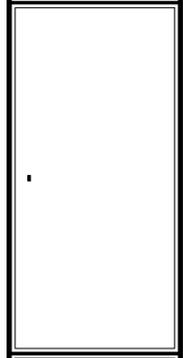
| NO. | DATE     | BY  | DESCRIPTION               |
|-----|----------|-----|---------------------------|
| 01  | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 02  | 08/12/15 | AVF | PER SFWMD COMMENTS        |

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Gary A. Boucher, P.E. #2885

STATE CERT. OF AUTH. #0006022

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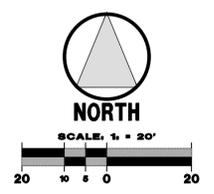


PROJECT: -  
 ORIG. DATE: 01/05/15  
 DRAWN BY: AVF  
 SCALE: AS SHOWN

**MU-GROW**  
 SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
 PASCO COUNTY, FLORIDA

SHEET #:  
**C3.2**

STRIPING NOTE:  
 ALL PARKING SPACES SHALL BE STRIPED WHITE.



**SIGNAGE AND MARKING PLAN**  
 SCALE: 1"=20'

**NOTE:**  
THIS PLAN IS PART OF AN OVERALL SET OF PLANS. THIS SHEET IS CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL OTHER DRAWINGS IN THE SET OF PLANS ON THE JOB SITE OR FOR BIDDING PURPOSES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SET OF PLANS TO ALL THOSE CONDUCTING WORK ON THIS PROJECT.

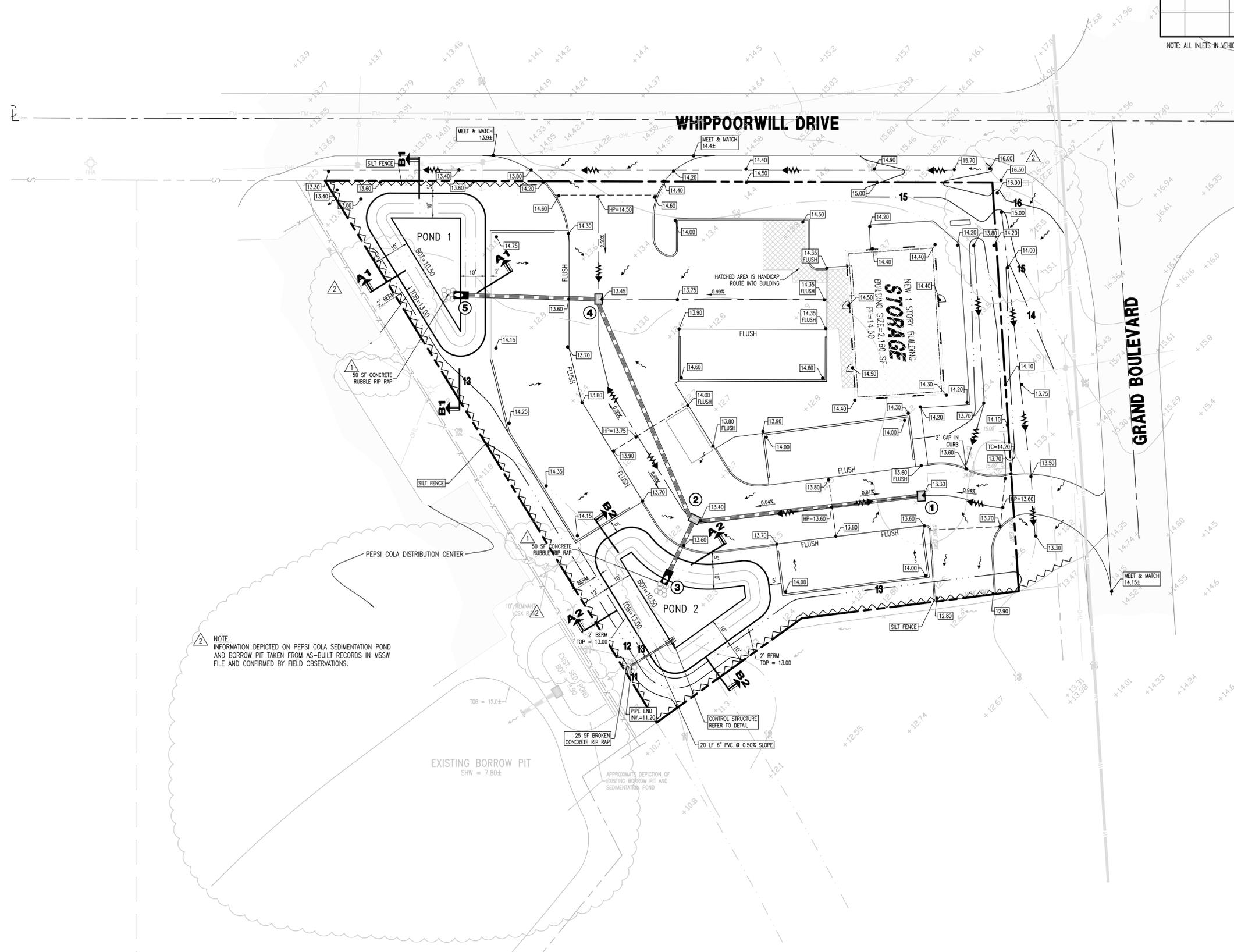
| DRAINAGE PIPE SCHEDULE |              |                |           |           |       |
|------------------------|--------------|----------------|-----------|-----------|-------|
| STRUCTURES             | LENGTH (FT.) | DIAMETER (IN.) | PIPE TYPE | SLOPE (%) | NOTES |
| ①                      | 92           | 18             | RCP       | 0.22      |       |
| ②                      | 28           | 24             | RCP       | 0.36      |       |
| ③                      | 94           | 18             | RCP       | 0.21      |       |
| ④                      | 59           | 18             | RCP       | 0.51      |       |

| DRAINAGE STRUCTURE SCHEDULE |                       |               |                     |       |
|-----------------------------|-----------------------|---------------|---------------------|-------|
| STR. #                      | DESCRIPTION           | TOP ELEVATION | INVERT ELEVATION(S) | NOTES |
| ①                           | TYPE "C" GRATED INLET | 13.30         | 10.50               |       |
| ②                           | TYPE "C" GRATED INLET | 13.40         | 9.90                |       |
| ③                           | MITERED END SECTION   | -             | 9.80 (SUMP)         |       |
| ④                           | TYPE "C" GRATED INLET | 13.45         | 10.10               |       |
| ⑤                           | MITERED END SECTION   | -             | 9.80 (SUMP)         |       |

**GRADING LEGEND**

- SILT BARRIER
- EXISTING SPOT GRADE - REFER TO SHEET C2.1 FOR DATUM
- PROPOSED SPOT GRADE - REFER TO SHEET C2.1 FOR DATUM
- PROPOSED HIGH-POINT GRADE
- PROPOSED TOP-OF-WALK GRADE
- EXISTING TOPOGRAPHIC CONTOUR
- PROPOSED TOPOGRAPHIC CONTOUR
- SWALE/INVERTED CROWN ARROW
- FLOW DIRECTION ARROW
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- EXISTING/PROPOSED GRATED INLET - TYPE SPECIFIED ON THE PLAN
- EXISTING/PROPOSED JUNCTION BOX - TYPE SPECIFIED ON THE PLAN
- PROPOSED CURB INLET - TYPE SPECIFIED ON THE PLAN
- EXISTING/PROPOSED MITERED END SECTION
- EXISTING/PROPOSED FLARED END SECTION

NOTE: ALL INLETS IN VEHICULAR USE AREAS SHALL HAVE TRAFFIC BEARING GRATES



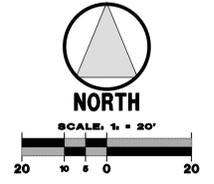
**GRADING NOTE (As provided by Pasco County):**  
The site shall be graded to within 12 inches of the final grade. Where fill is proposed it shall be placed in compliance with the geotechnical/geological engineering report recommendations (including any lift depths recommended) and compacted to a minimum density of 95% of the modified Proctor maximum dry density. Density tests to confirm compaction shall be required within the building pad area, before the next lift is placed. Upon completion of the land development construction, a professional engineer shall provide a certification to Pasco County that the project, including each pad area, complies with the recommendations of the geotechnical/geological engineering report.

**GEOTECHNICAL NOTES (As Provided By Pasco County):**  
A. Should any noticeable soil slumping or sinkhole formation become evident, the applicant/developer shall immediately notify the County, Tampa Bay Water (TBW), and SWFWMD, and adopt one or more of the following procedures as determined to be appropriate by the County and SWFWMD:

1. If the slumping or sinkhole formation becomes evident before or during construction activities, stop all work (except for mitigation activities) in the affected area and remain stopped until the County and SWFWMD approve resuming construction activities.
  2. Take immediate measures to ensure no surface water drains into the affected areas.
  3. Visually inspect the affected area.
  4. Excavate and backfill or grout as required to fill the affected area and prevent further subsidence.
  5. Use soil reinforcement materials in the backfilling operation, when appropriate.
  6. If the affected area is in the vicinity of a water-retention area, maintain a minimum distance of two feet from the bottom of the retention pond to the surface of the lime-rock or karst connection.
  7. If the affected area is in the vicinity of a water-retention area and the above methods do not stabilize the collapse, relocate the retention area.
- Discharge of storm-water into depressions with direct or demonstrated hydrologic connection to the Floridan Aquifer shall be prohibited.

NOTE:  
ELEVATIONS ARE BASED ON NGS BENCHMARK "U 672", ELEVATION 15.41 (NAVD88).

NOTE:  
INFORMATION DEPICTED ON PEPSI COLA SEDIMENTATION POND AND BORROW PIT TAKEN FROM AS-BUILT RECORDS IN MSSW FILE AND CONFIRMED BY FIELD OBSERVATIONS.



**GRADING AND DRAINAGE PLAN**  
SCALE: 1"=20'

REVISIONS

| NO. | DATE     | DESCRIPTION               | BY  | CHKD. |
|-----|----------|---------------------------|-----|-------|
| 01  | 08/12/15 | PER PASCO COUNTY COMMENTS | AVF |       |
| 02  | 08/12/15 | PER SWFWMD COMMENTS       | AVF |       |

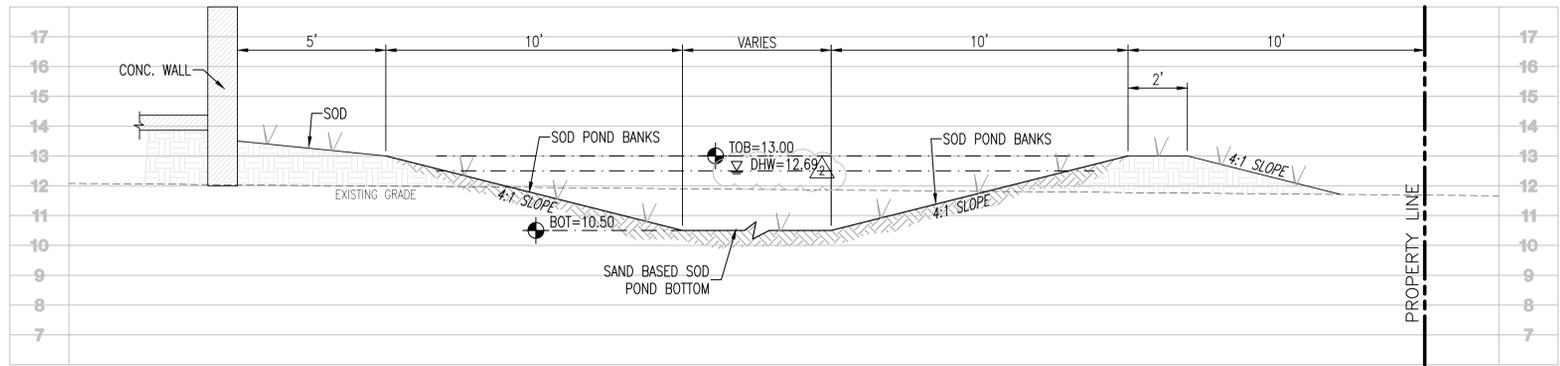
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PROJ-0116-C-11  
**MU-GROW**  
SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
PASCO COUNTY, FLORIDA

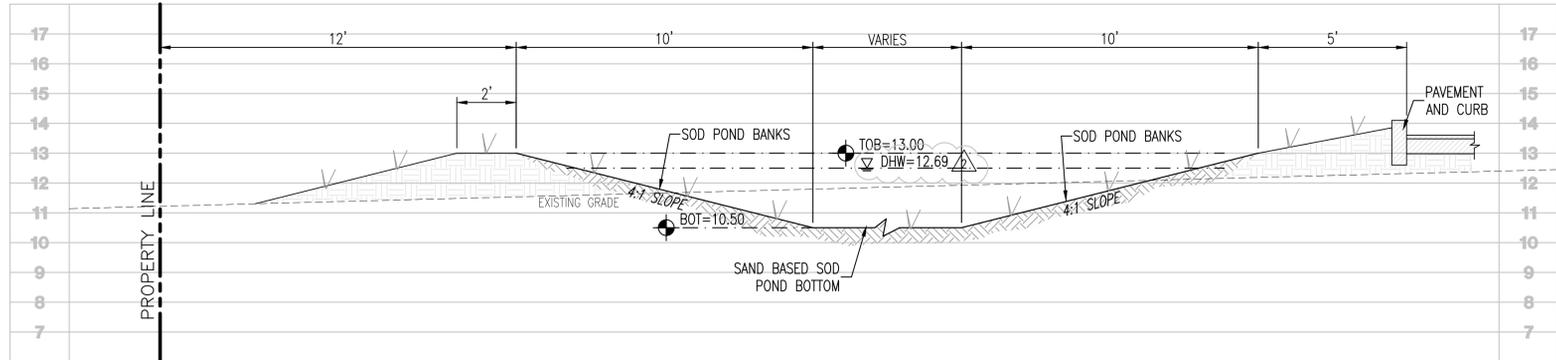
PROJECT #:-  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**C4.1**



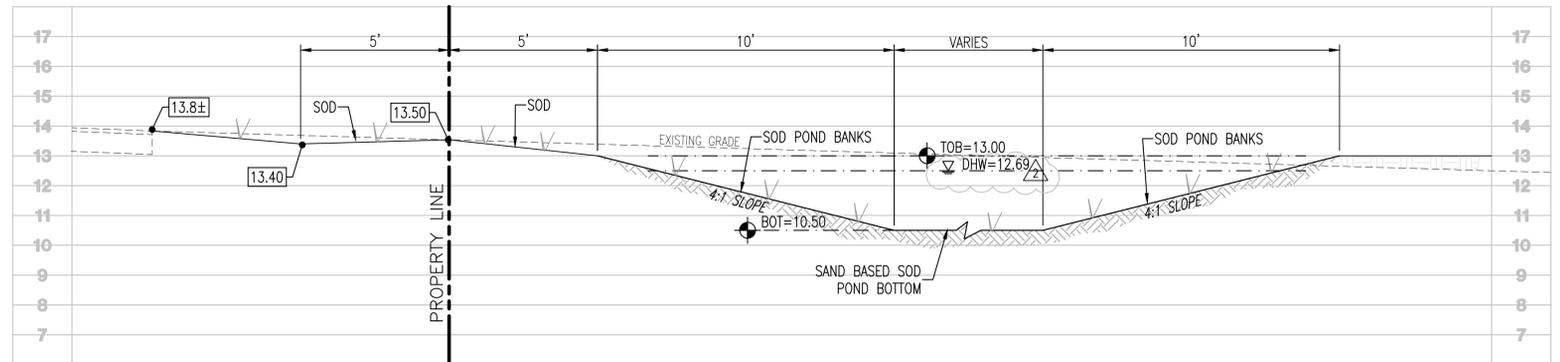
**POND SECTION B2-B2**

SCALE: NONE



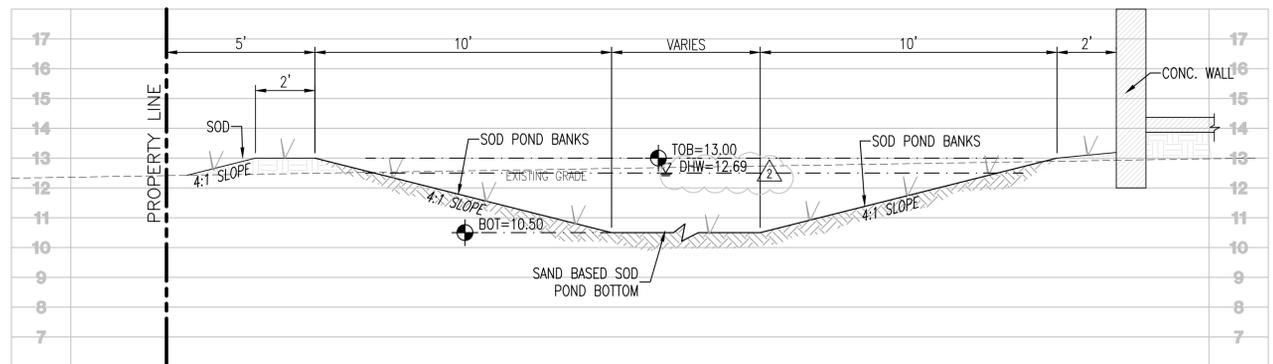
**POND SECTION A2-A2**

SCALE: NONE



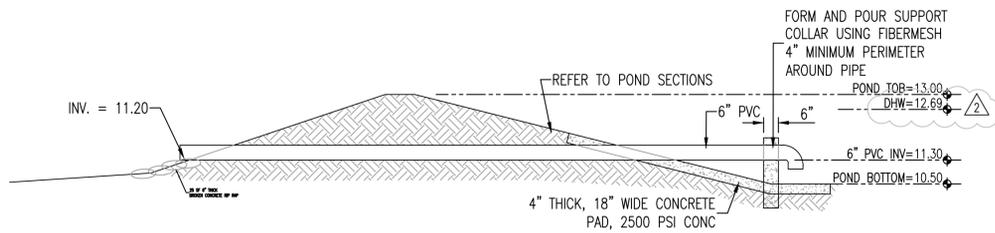
**POND SECTION B1-B1**

SCALE: NONE



**POND SECTION A1-A1**

SCALE: NONE



**CONTROL STRUCTURE DETAIL**

NTS

**SD** = SHOP DRAWING REQUIRED  
REFER TO STANDARD NOTES  
FOR CONDITIONS

**POND CROSS SECTION AND  
STORMWATER MANAGEMENT DETAILS**

SCALE: NONE

| NO. | DATE     | BY  | REVISIONS                 |
|-----|----------|-----|---------------------------|
| 1   | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2   | 08/12/15 | AVF | PER SWFMD COMMENTS        |

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STATE CERT. OF AUTH. #00090221

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www.ozonavehicle.com

Gary A. Boucher, P.E. #20885

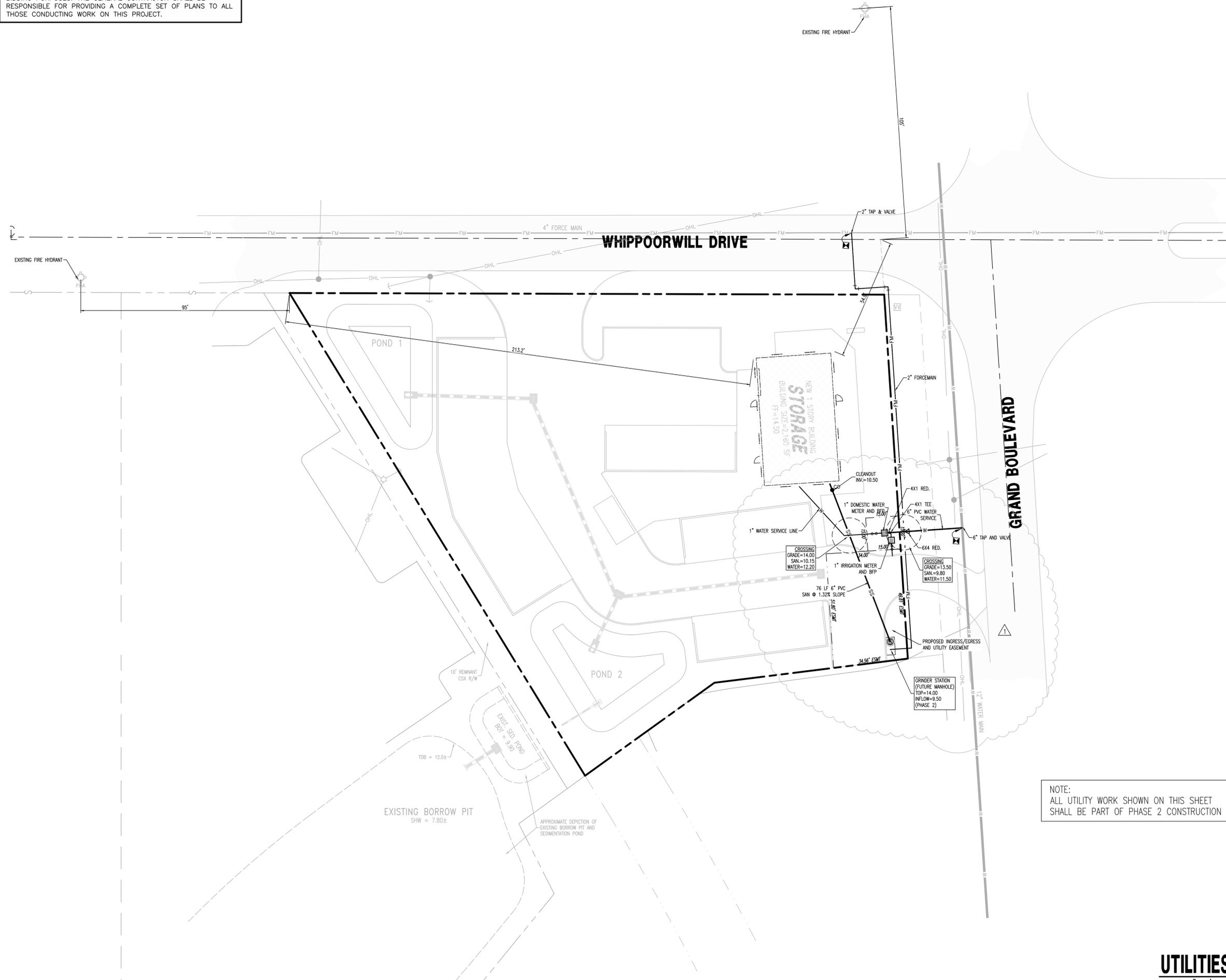
PROJECT #:-  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

**MU-GROW**  
SW GRAND BLVD AND WHIPPOONWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #:-  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**C4.2**

**NOTE:**  
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**NOTE:**  
ALL UTILITY WORK SHOWN ON THIS SHEET SHALL BE PART OF PHASE 2 CONSTRUCTION

| UTILITY LEGEND |  |
|----------------|--|
|                | EXISTING/PROPOSED WATER LINE - SIZE AND TYPE NOTED ON THE PLAN                 |
|                | EXISTING/PROPOSED SEWER LINE - SIZE AND TYPE NOTED ON THE PLAN                 |
|                | EXISTING/PROPOSED FORCE MAIN - SIZE AND TYPE NOTED ON THE PLAN                 |
|                | EXISTING/PROPOSED REUSE LINE - SIZE AND TYPE NOTED ON THE PLAN                 |
|                | EXISTING/PROPOSED STORM SEWER LINE - REFER TO GRADING PLAN FOR SIZES AND TYPES |
|                | EXISTING/PROPOSED OVERHEAD UTILITY LINES                                       |
|                | EXISTING/PROPOSED UNDERGROUND UTILITY LINES                                    |
|                | EXISTING/PROPOSED POWER POLE   |
|                | SITE LIGHTS - REFER TO ARCHITECTURAL PLANS FOR SPECIFICATIONS                  |
|                | EXISTING/PROPOSED FIRE HYDRANT ASSEMBLY  |
|                | EXISTING/PROPOSED FIRE DEPARTMENT CONNECTION                                   |
|                | EXISTING/PROPOSED WATER METER  |
|                | EXISTING/PROPOSED IRRIGATION METER   |
|                | EXISTING/PROPOSED DOUBLE DETECTOR CHECK VALVE ASSEMBLY (DDCVA)                 |
|                | EXISTING/PROPOSED GATE VALVE   |
|                | EXISTING/PROPOSED SANITARY MANHOLE   |
|                | EXISTING/PROPOSED SANITARY CLEANOUT  |
|                | EXISTING/PROPOSED GRATED INLET - REFER TO GRADING PLAN FOR SIZES AND TYPES     |
|                | EXISTING/PROPOSED JUNCTION BOX - REFER TO GRADING PLAN FOR SIZES AND TYPES     |
|                | PROPOSED CURB INLET - TYPE SPECIFIED ON THE PLAN                               |
|                | EXISTING/PROPOSED MITERED END SECTION  |
|                | EXISTING/PROPOSED FLARED END SECTION   |
|                | POINT OF CONNECTION  |

| REVISIONS | DATE     | BY  | DESCRIPTION               |
|-----------|----------|-----|---------------------------|
| 1         | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2         | 08/12/15 | AVF | PER SFWMD COMMENTS        |

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Gary A. Boucher, P.E. 22885

STATE CERT. OF AUTH. #00060622

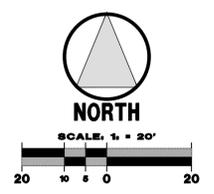
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PROJ-0110-CT-1

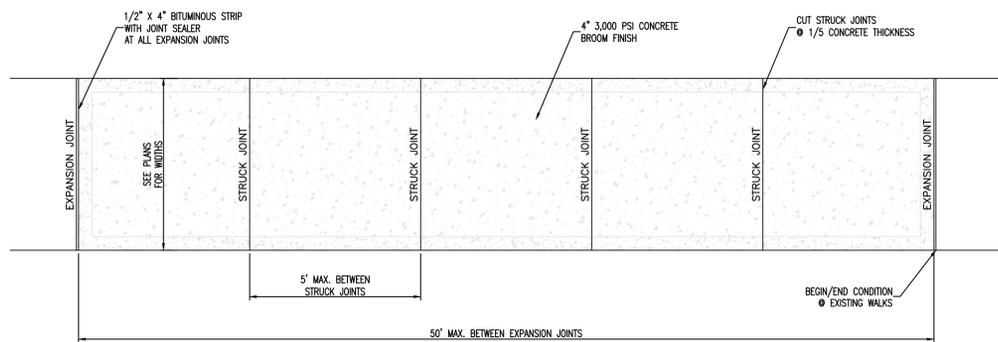
**MU-GROW**  
SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #:-  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**C5.1**



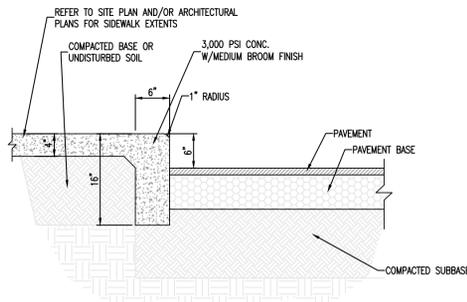
**UTILITIES SITE PLAN**  
SCALE: 1"=20'



- NOTES:
1. SIDEWALKS SHALL HAVE TOOLED EDGES.
  2. CONSTRUCTION JOINTS SHALL BE LOCATED AT STRUCK JOINTS OR EXPANSION JOINTS ONLY.
  3. THIS DETAIL IS FOR ON-SITE CONDITIONS ONLY. DO NOT USE FOR RIGHT-OF-WAY CONSTRUCTION.
  4. REFER TO FOOT INDEX #310 AND CORRESPONDING SPECIFICATIONS FOR SIDEWALKS WITHIN THE RIGHT OF WAY.

## SIDEWALK DETAIL

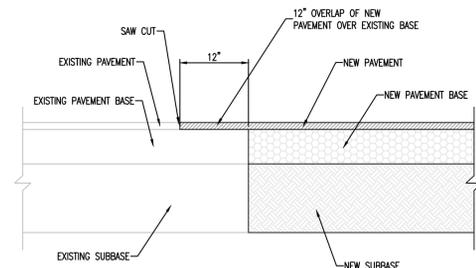
NTS



- NOTES:
1. PROVIDE 1/4" CONTROL JOINTS @ 5'-0" O.C.
  2. PROVIDE 1/2" BITUMINOUS EXPANSION JOINTS @ 50' O.C.
  3. THIS DETAIL IS FOR ON-SITE CONDITIONS ONLY. DO NOT USE FOR RIGHT-OF-WAY CONSTRUCTION.

## SIDEWALK CURB DETAIL (MONOLITHIC)

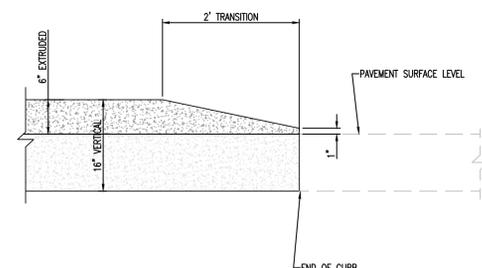
NTS



- NOTES:
1. REFER TO GRADING PLAN FOR PAVEMENT SLOPES.
  2. SAW CUT EXISTING PAVEMENT AT ALL PAVEMENT TRANSITIONS BEFORE NEW PAVEMENT IS APPLIED.

## PAVEMENT TRANSITION DETAIL

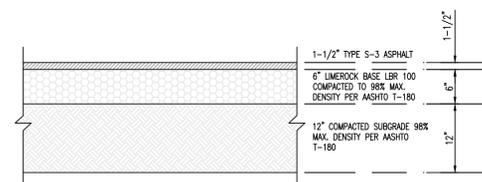
NTS



- NOTES:
1. MAINTAIN FULL DEPTH OF VERTICAL CURB FOR TRANSITION.
  2. LAST VERTICAL REBAR FOR EXTRUDED CURB SHALL BE 24" FROM END OF TRANSITION.

## CURB TRANSITION DETAIL

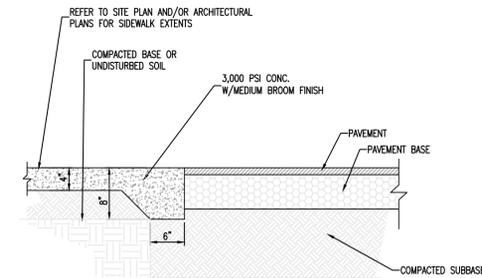
NTS



- NOTES:
1. REFER TO GRADING PLAN FOR PAVEMENT SLOPES.
  2. SUBSTITUTIONS OF BASE MATERIAL MUST BE APPROVED BY THE ENGINEER.

## STANDARD PAVEMENT DETAIL

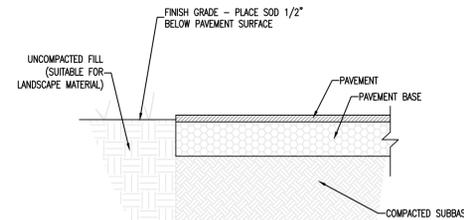
NTS



- NOTES:
1. PROVIDE 1/4" CONTROL JOINTS @ 5'-0" O.C.
  2. PROVIDE 1/2" BITUMINOUS EXPANSION JOINTS @ 50' O.C.
  3. THIS DETAIL IS FOR ON-SITE CONDITIONS ONLY. DO NOT USE FOR RIGHT-OF-WAY CONSTRUCTION.

## FLUSH SIDEWALK DETAIL

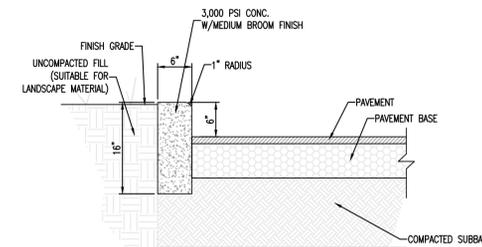
NTS



- NOTES:
1. REFER TO PLAN FOR LANDSCAPE PROTECTION MEASURES SUCH AS WHEEL STOPS.
  2. THIS CONDITION SHALL NOT BE USED FOR TRANSITION TO GRASS PARKING.

## PLACEMENT OF SOD AT PAVEMENT

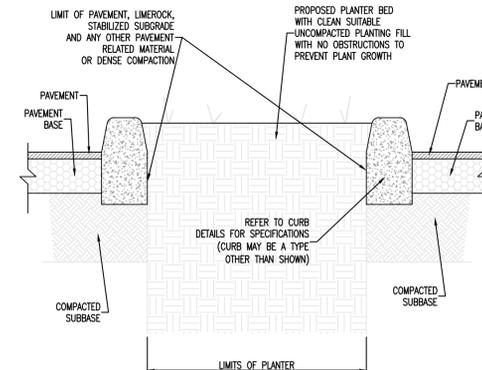
NTS



- NOTES:
1. INSTALL EXPANSION JOINTS EVERY 50 FEET.
  2. CURBS SHALL HAVE 1" DEEP CONTROL JOINT EVERY 10 FEET.
  3. THIS DETAIL IS FOR ON-SITE CONDITIONS ONLY. DO NOT USE FOR RIGHT-OF-WAY CONSTRUCTION.

## VERTICAL CURB DETAIL

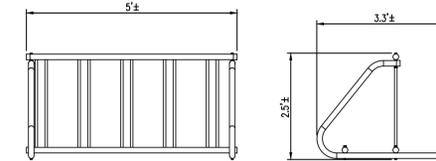
NTS



## CURB PLACEMENT AT PLANTER DETAIL

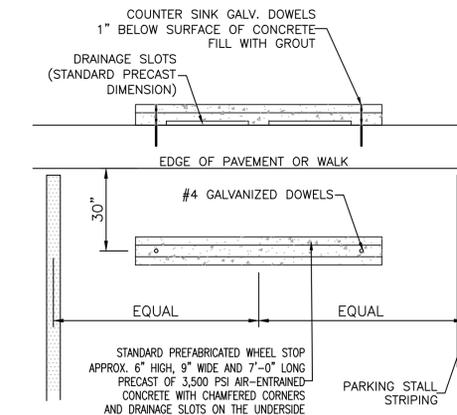
NTS

- NOTES:
1. THE PURPOSE OF THIS DETAIL IS TO PROVIDE A GUIDELINE FOR THE INTENT TO PROVIDE A 4-SPACE BIKE RACK.
  2. MANUFACTURER SPECIFICATIONS MAY VARY FOR ACTUAL DIMENSIONS.
  3. CONTRACTOR SHALL PROVIDE A SHOP DRAWING TO BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO PURCHASE AND INSTALLATION. SHOP DRAWINGS SHALL INCLUDE METHOD OF ATTACHMENT TO CONCRETE SURFACE.
  4. BIKE RACK AND ATTACHMENT FEATURES SHALL BE MADE OF SUITABLE MATERIAL FOR OUTDOOR CONDITIONS.
  5. THE CONTRACTOR MUST VERIFY THAT THE ARCHITECT DESIGNING THE RELATIVE BUILDING FOR THIS PROJECT HAS OR HAS NOT PROVIDED ADDITIONAL DETAIL OR REPLACEMENT DETAIL FOR A BIKE RACK. IN THE EVENT HE OR SHE HAS, THE CONTRACTOR MUST COORDINATE WITH THE ENGINEER OF RECORD TO VERIFY THAT ALL PROVIDED INFORMATION IS PROPER AND UP TO DATE.



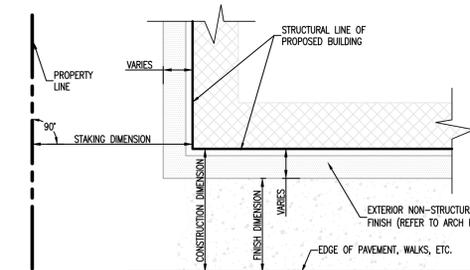
## TYPICAL BIKE RACK

NTS



## WHEELSTOP DETAIL

NTS



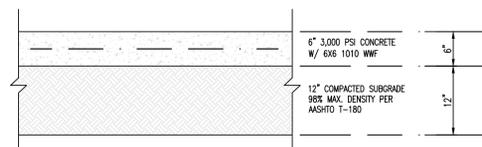
- NOTES:
1. ALL STAKING TO PROPERTY LINES FOR NEW BUILDINGS SHALL BE PERPENDICULAR.
  2. CONSTRUCTION DIMENSIONS SHOWN ON THE PLAN ARE TO THE BUILDING STRUCTURAL LINE.
  3. FOR NEW CONSTRUCTION, EXTERIOR NON-STRUCTURAL FINISH SUCH AS STUCCO, EIFS, BRICK VENEER, ETC. ARE NOT INCLUDED IN BUILDING STAKING TO PROPERTY LINE AND OTHER CONSTRUCTION FEATURES.
  4. LIMITS OF CALCULATED FLOOR AREA IS TAKEN TO THE STRUCTURAL LINE OF THE BUILDING SUCH AS FACE OF STRUCTURAL BLOCK, OUTSIDE OF FRAMING, EDGE OF MONOLITHIC SLAB, ETC.
  5. CONTRACTOR SHALL COMPARE CIVIL PLANS TO ARCHITECTURAL PLANS FOR DISCREPANCIES PRIOR TO CONDUCTING RELATED WORK.
  6. THIS IS A GENERAL DETAIL. SPECIAL CIRCUMSTANCES MAY SUPERCEDE THIS DETAIL FOR PORTIONS OF THE BUILDING SUCH AS UNIQUE CONSTRUCTION, BUILDING ADDITIONS, DIMENSIONS TO EXISTING BUILDINGS, ETC.

## BUILDING STAKING AND MEASUREMENT CONTROL DETAIL

NTS

## ON-SITE PAVEMENT AND CURB NOTES AND SPECIFICATIONS

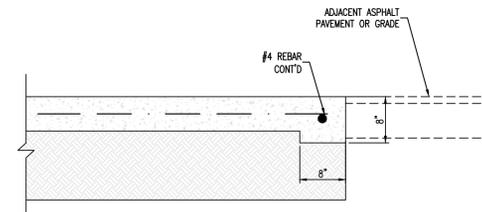
1. ALL PAVEMENT AND CURB DETAILS CONTAINED ON THIS PAGE ARE FOR ON-SITE PRIVATE VEHICULAR USE AREAS ONLY.
2. ALL PAVEMENT AND CURB WITHIN THE PUBLIC RIGHT OF WAY SHALL BE PER THE LOCAL JURISDICTIONAL DETAILS AND SPECIFICATIONS OF THAT RIGHT OF WAY.
3. REFER TO OTHER DETAIL PAGES OR REFERENCE MATERIALS CALLED OUT ON THE PLAN CONTAINING STANDARD DETAILS FOR RIGHT OF WAY WORK.



- NOTES:
1. REFER TO GRADING PLAN FOR PAVEMENT SLOPES.
  2. SUBSTITUTIONS OF BASE MATERIAL MUST BE APPROVED BY THE ENGINEER.

## CONCRETE PAVEMENT DETAIL

NTS



- NOTES:
1. REFER TO GRADING PLAN FOR PAVEMENT SLOPES.
  2. SUBSTITUTIONS OF BASE MATERIAL MUST BE APPROVED BY THE ENGINEER.

## CONCRETE PAVEMENT END DETAIL

NTS

SD = SHOP DRAWING REQUIRED REFER TO STANDARD NOTES FOR CONDITIONS

## ON-SITE PAVEMENT, CURB AND WALK DETAILS

SCALE: NONE

| REVISIONS | DATE | BY                        | DESCRIPTION |
|-----------|------|---------------------------|-------------|
| 08/12/15  | AVF  | PER PASCO COUNTY COMMENTS |             |
| 08/12/15  | AVF  | PER SWFWMD COMMENTS       |             |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. REGISTERED PROFESSIONAL ENGINEER BY MY HAND AND SEAL.

Garry A. Baucher, P.E. #2885

STATE CERT. OF AUTH. #00069421

**Ozona Engineering, Inc.**

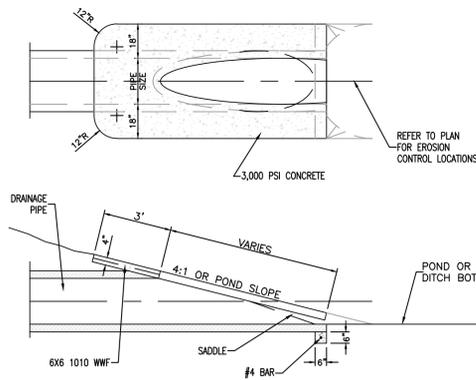
P.O. Box 432  
Ozona, Florida 34860-432  
Phone: (727) 785-3939 Fax: (727) 785-3434  
www.ozonavehicle.com

PROJECT #:-  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

PROJECT: MU-GROW  
SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
PASCO COUNTY, FLORIDA

SHEET #:  
**C6.1**





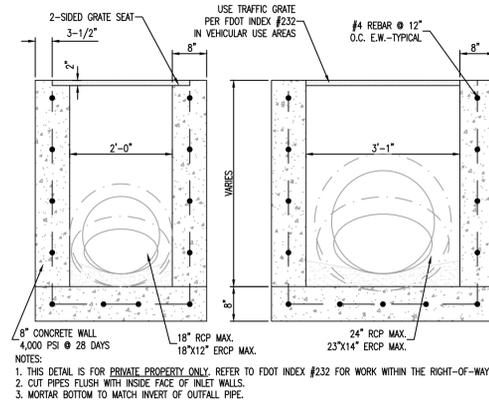
**MITERED END SECTION DETAIL**

NTS

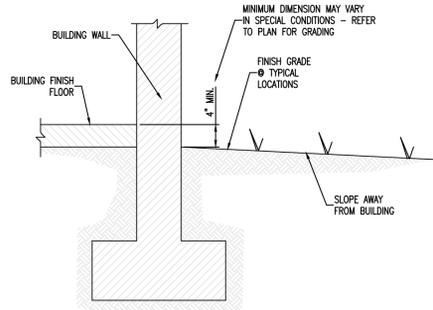


**TYPE 'C' INLET DETAIL**

NTS



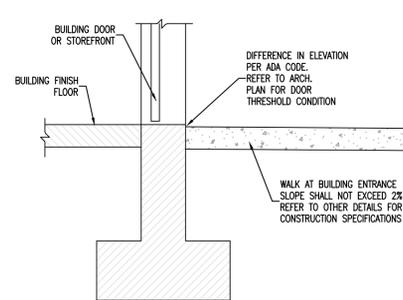
NOTES:  
 1. THIS DETAIL IS FOR PRIVATE PROPERTY ONLY. REFER TO FDOT INDEX #232 FOR WORK WITHIN THE RIGHT-OF-WAY.  
 2. CUT PIPES FLUSH WITH INSIDE FACE OF INLET WALLS.  
 3. MORTAR BOTTOM TO MATCH INVERT OF OUTFALL PIPE.



NOTES:  
 1. THIS IS A GENERAL DETAIL. REFER TO SITE PLAN FOR EXCEPTIONS.  
 2. GRADING SHALL BE ARRANGED TO PROVIDE POSITIVE FLOW AWAY FROM THE BUILDING.  
 3. IN SOME CASES, CURB MAY BE NOTCHED TO PREVENT PONDING BETWEEN THE BUILDING AND THE CURB.

**GRADING AT BUILDING DETAIL**

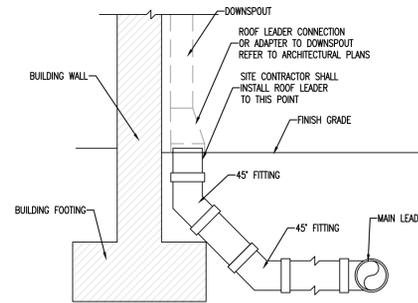
NTS



NOTES:  
 1. THIS IS A GENERAL DETAIL. REFER TO SITE PLAN FOR EXCEPTIONS.  
 2. ARCHITECTURAL PLANS SHALL TAKE PRECEDENCE OVER THIS DETAIL.  
 3. REPORT ANY DISCREPANCIES TO THE ENGINEER OF RECORD AND THE ARCHITECT PRIOR TO CONSTRUCTION.  
 4. THIS IS A GRADING DETAIL. REFER TO OTHER DETAILS FOR CONSTRUCTION SPECIFICATIONS.

**SIDEWALK AT BUILDING DOOR DETAIL**

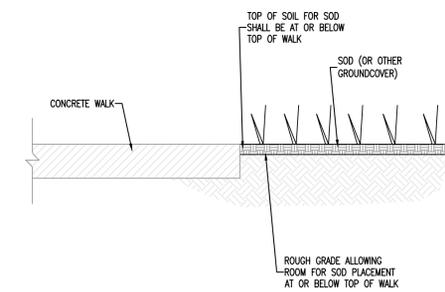
NTS



NOTES:  
 1. REFER TO SITE PLANS FOR PIPE SIZES AND SPECIFICATIONS.  
 2. SITEWORK CONTRACTOR IS RESPONSIBLE FOR ALL LABOR AND MATERIAL UP TO THE DOWNSPOUT CONNECTION.  
 3. ACTUAL DOWNSPOUT CONNECTION FROM BUILDING DOWNSPOUTS TO ROOF LEADER PIPES SHALL BE SUPPLIED AND INSTALLED BY BUILDING CONTRACTOR.

**ROOF LEADER CONNECTION DETAIL**

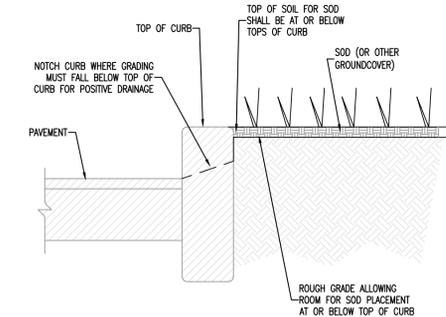
NTS



NOTES:  
 1. THIS IS A GENERAL DETAIL. REFER TO SITE PLAN FOR EXCEPTIONS.  
 2. GRADING AROUND WALKS SHALL BE DONE TO PREVENT PONDING WITHIN THE WALK AREAS. SOD AND GRADING MAY BE FINISHED LOWER TO ACHIEVE POSITIVE DRAINAGE.  
 3. PLACEMENT OF SOD SHALL NOT IMPEDE WATER FLOW.  
 4. THIS IS A GRADING DETAIL. REFER TO OTHER DETAILS FOR CONSTRUCTION SPECIFICATIONS.

**GRADING AT WALKS**

NTS



NOTES:  
 1. THIS IS A GENERAL DETAIL. REFER TO SITE PLAN FOR EXCEPTIONS.  
 2. GRADE ISLANDS TO PREVENT PONDING.  
 3. PLACEMENT OF SOD SHALL NOT IMPEDE WATER FLOW.  
 4. THIS IS A GRADING DETAIL. REFER TO OTHER DETAILS FOR CONSTRUCTION SPECIFICATIONS.

**GRADING AT CURBS**

NTS

**ON-SITE GRADING AND DRAINAGE NOTES AND SPECIFICATIONS**

1. ALL GRADING AND DRAINAGE DETAILS CONTAINED ON THIS PAGE ARE FOR ON-SITE PRIVATE SERVICES ONLY.
2. ALL GRADING AND DRAINAGE APPURTENANCES AND TREATMENT WITHIN THE PUBLIC RIGHT OF WAY SHALL BE PER THE LOCAL JURISDICTIONAL DETAILS AND SPECIFICATIONS OF THAT RIGHT OF WAY.
3. REFER TO OTHER DETAIL PAGES OR REFERENCE MATERIALS CALLED OUT ON THE PLAN CONTAINING STANDARD DETAILS FOR RIGHT OF WAY WORK.

**ON-SITE GRADING AND DRAINAGE DETAILS**

SCALE: NONE

| REVISIONS | DATE     | BY  | DESCRIPTION               |
|-----------|----------|-----|---------------------------|
| 1         | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2         | 08/12/15 | AVF | PER SWFWMD COMMENTS       |

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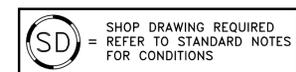
SITE SPEC. OF AUTH. #00000021

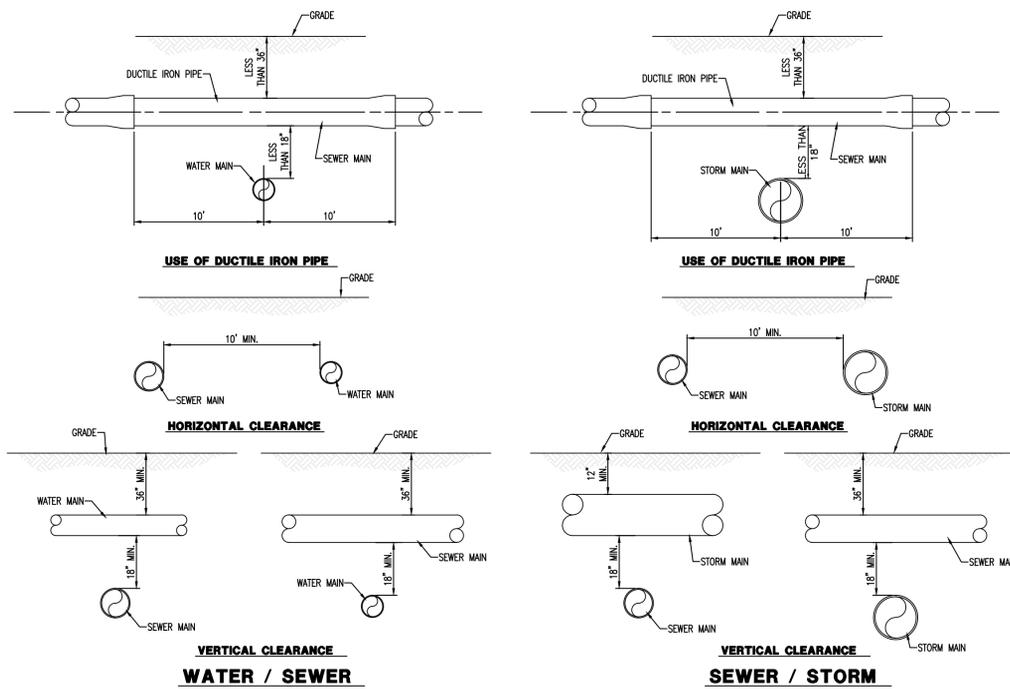
**Ozona Engineering, Inc.**  
 P.O. Box 432  
 Ozona, Florida 34660-432  
 Phone: (727) 785-3839 Fax: (727) 785-3434  
 www.ozonavehicle.com

**MU-GROW**  
 SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
 PASCO COUNTY, FLORIDA

PROJECT #:-  
 ORIG. DATE: 01/05/15  
 DRAWN BY: AVF  
 SCALE: AS SHOWN

SHEET #:  
**C6.3**

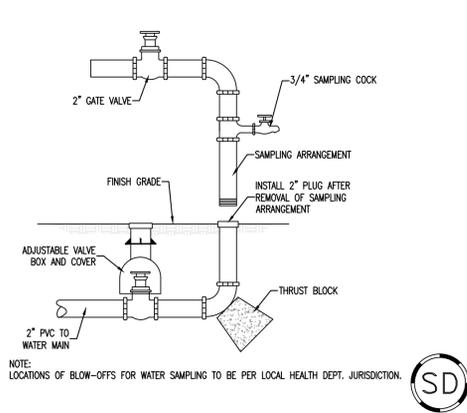




- NOTES:
1. PROVIDE 36" MIN. COVER OVER DOMESTIC WATER MAINS AND SANITARY SEWER MAINS.
  2. PROVIDE 12" MIN. COVER OVER STORM SEWER MAINS (UNLESS NOTED OTHERWISE).
  3. PROVIDE 18" MIN. VERTICAL AND 10" HORIZONTAL CLEARANCE BETWEEN WATER AND SANITARY SEWER MAINS.
  4. PROVIDE 18" MIN. VERTICAL AND 10" HORIZONTAL CLEARANCE BETWEEN WATER AND STORM SEWER MAINS.
  5. PROVIDE 10" MIN. HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND WATER MAINS.
  6. PROVIDE 10" MIN. HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER AND STORM MAINS.
  7. DUCTILE IRON PIPE SANITARY SEWER SHALL BE USED UNDER THE FOLLOWING CONDITIONS:
    - A. MINIMUM COVER FOR SANITARY SEWER IS LESS THAN 36".
    - B. VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER MAINS IS LESS THAN 18".
    - C. VERTICAL CLEARANCE BETWEEN WATER AND STORM MAINS IS LESS THAN 18".
  8. CONCRETE ENCASUREMENT OF SANITARY SEWER GRAVITY MAIN IS NOT PERMITTED.
  9. SEE OTHER DETAILS FOR CONFLICT BOXES IF PROPOSED.
  10. LATERALS INTO BUILDINGS SHALL NOT APPLY TO THESE RESTRICTIONS WITHIN 5' OF THE STRUCTURAL LINE OF BUILDING(S).

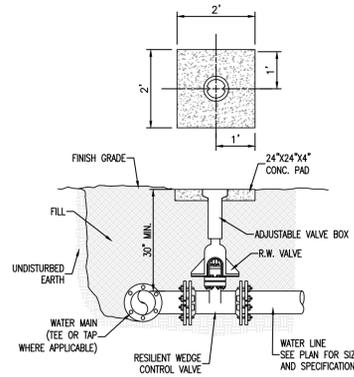
### WATER MAIN AND SANITARY SEWER CLEARANCES

NTS



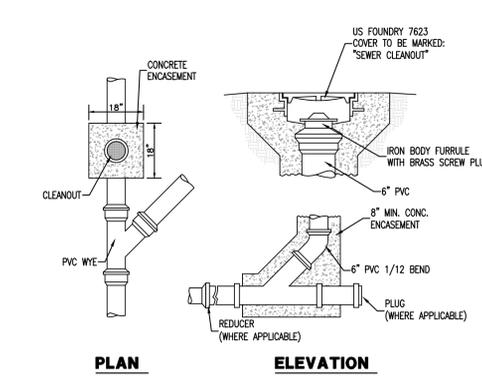
### BLOW OFF AND SAMPLING POINT

NTS



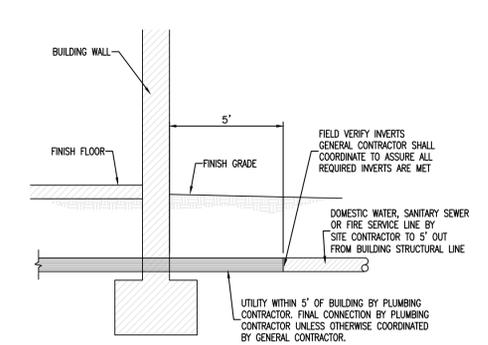
### GATE VALVE AND BOX

NTS



### SANITARY SEWER CLEANOUT

NTS



NOTE: THIS DETAIL SHALL NOT TAKE PRECEDENCE OVER CONTRACTS OR ARRANGEMENTS MADE BETWEEN THE GENERAL CONTRACTOR AND ITS SUBCONTRACTORS. THIS DETAIL IS PROVIDED AS A GUIDELINE TO SEPARATE SITEWORK FROM BUILDING WORK.

### UTILITY CONNECTION AT BUILDING

NTS

| NO. | DATE     | REVISIONS                     |
|-----|----------|-------------------------------|
| 1   | 08/12/15 | PER PASCO COUNTY COMMENTS AVF |
| 2   | 08/12/15 | PER SFWMD COMMENTS AVF        |

STATE CERT. OF AUTH. #00069021  
 I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND IN ACCORDANCE WITH THE LAWS OF THE STATE OF FLORIDA AND SEAL BY MY HAND AND SEAL  
 Gary A. Baucher, P.E. #2885

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 Phone: (727) 785-3839 Fax: (727) 785-3434  
 www.ozonaveb.com

PROJECT #:  
 SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
 PASCO COUNTY, FLORIDA

#### ON-SITE UTILITIES NOTES AND SPECIFICATIONS

1. ALL UTILITY DETAILS CONTAINED ON THIS PAGE ARE FOR ON-SITE PRIVATE SERVICES ONLY.
2. ALL UTILITY APPURTENANCES RELATIVE TO CONNECTIONS TO THE PUBLIC SYSTEM, METERS, BACKFLOW PREVENTION DEVICES, ETC. SHALL BE PER THE LOCAL UTILITY PROVIDER'S STANDARDS.
3. REFER TO OTHER DETAIL PAGES CONTAINING STANDARD DETAILS FOR PUBLIC UTILITIES.

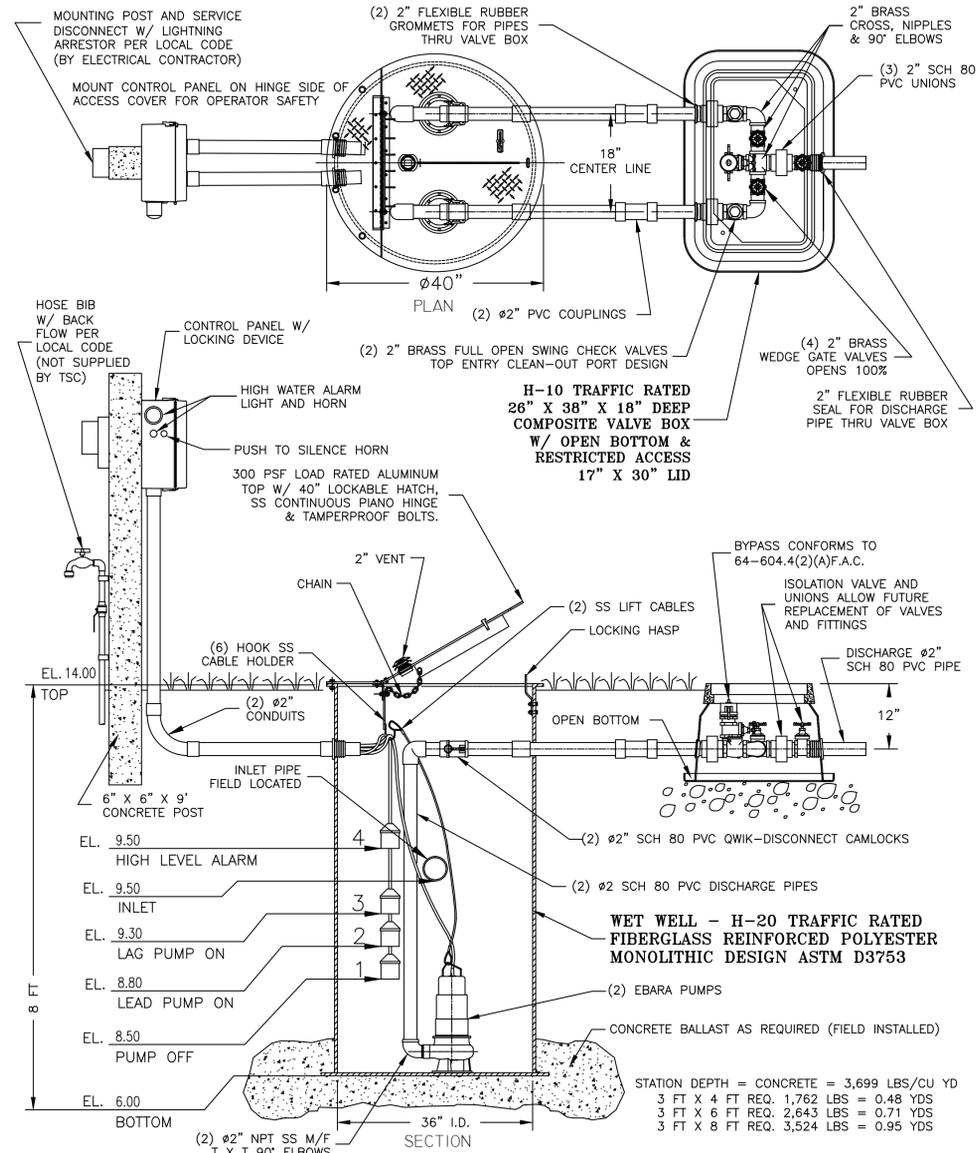
|               |                      |
|---------------|----------------------|
| PROJECT #:    | ORIG. DATE: 01/05/15 |
| DRAWN BY: AVF | SCALE: AS SHOWN      |
| SHEET #:      |                      |

**C6.4**

SD = SHOP DRAWING REQUIRED REFER TO STANDARD NOTES FOR CONDITIONS

### ON-SITE UTILITY DETAILS

SCALE: NONE



36" DUPLEX STATION - 2"  
WITH VALVE BOX AND CONTROL PANEL  
TSC PRE-FAB PUMP SOLUTIONS®

MODEL  
TSC2-36.0 R9.dwg©

2. MOUNTING POST AND SERVICE DISCONNECT PER LOCAL CODE  
1. CONCRETE BALLAST AS REQUIRED  
FIELD INSTALL BY CONTRACTOR

JOB: \_\_\_\_\_  
QS: \_\_\_\_\_

### GENERAL NOTES

FURNISH AND INSTALL EBARA SUBMERSIBLE PUMPS:  
DESIGN CONDITION:

|           |                |               |          |
|-----------|----------------|---------------|----------|
| MODEL     | 50 DWXU        | 1/2, 1, OR 2  | HP       |
| GPM       | 45             | 18            | FT/TDH   |
| VOLTAGE   | 115 OR 208/230 | SINGLE        | PHASE    |
| DISCHARGE | 2"             | FULL DIAMETER | IMPELLER |

- SEWAGE PUMP: 1. RATED FOR TWENTY (20) STARTS PER HOUR.
- AIR FILLED MOTOR DESIGNED FOR SEWAGE APPLICATION WITH CLASS F INSULATION.
- DUAL MECHANICAL SHAFT SEALS (SILICON CARBIDE / SILICON CARBIDE) LOCATED OUT OF THE PUMPAGE, IN A SEPARATE OIL FILLED CHAMBER.
- HIGH TEMPERATURE BALL BEARINGS SEALED OR SHIELDED, UPPER AND LOWER BEARINGS - SINGLE ROW TYPE.
- PUMP SHAFT HORSEPOWER (BHP) SHALL NOT EXCEED MOTOR RATED HORSEPOWER THROUGHOUT THE ENTIRE OPERATING RANGE OF THE PUMP PERFORMANCE CURVE.
- PUMPS SHALL BE INTERNAL SPLIT CAPACITOR DESIGN, CONSTRUCTED OF 304 STAINLESS STEEL AND OPERATE EITHER FULLY OR PARTIALLY SUBMERGED. PUMPS ARE CAPABLE OF PASSING 2" SOLIDS OR SEWAGE MATERIAL. THE IMPELLER SHALL BE VORTEX OR SINGLE VANE. THE PUMPS SHALL HAVE A DISCHARGE SIZE OF 2".

**FIBERGLASS WET WELL:** SHALL BE A ONE PIECE UNIT WITH OPEN BOTTOM, WALL AND UPPER FLANGE. THE ENTIRE FIBERGLASS WET WELL SHALL HAVE A DYNAMIC LOAD RATING OF 16,000 FT/LBS. EACH UNIT MUST BE SERIAL NUMBERED TO IDENTIFY THE TEST PROCEDURE. ASTM D 3753 & H-20 SPECIFICATIONS SHALL BE REQUIRED AS MINIMUM.

**ALUMINUM HATCH:** TSC MODEL-40R (40") ROUND LOCKABLE HINGED TOP, REINFORCED FOR LOAD RATING OF 300 LBS/FT OPENS 180° WITH LOCKING DEVICE FOR HASP TYPE PADLOCK AND STAINLESS STEEL HARDWARE.

**VALVE BOX:** FIBERGLASS COMPOSITE (H-10 TRAFFIC RATED) WITH OPEN BOTTOM SHALL BE 26" X 38" X 18" WITH 17" X 30" LIMITED ACCESS LID.

**ACCESSORIES:** #304 S/S - CABLE HOLDER, PUMP LIFTING CABLE AND HARDWARE.

**VALVES:** SHALL BE SEWAGE SERVICE DESIGN BRASS SWING CHECK VALVES WITH TOP ENTRY CLEAN-OUT PORT AND BRASS WEDGE GATE VALVES OPEN 100%.

**PIPING:** 2" SCHEDULE 80 PVC.

**FLOAT SWITCHES:** UL LISTED SJ ELECTRO MODEL (SJ 20 SMWENO).

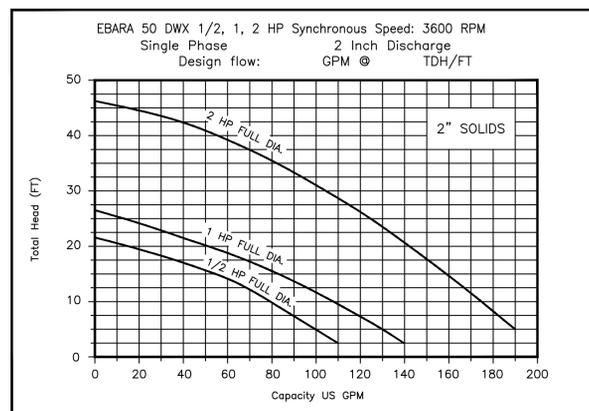
PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, CONTROL PANEL, FLOAT SWITCHES, WET WELL, ALUMINUM HATCH, VALVE BOX AND ACCESSORIES TO INSURE PROPER OPERATION AND WARRANTY.

THE COMPLETE PACKAGE STATION SHALL HAVE DISCHARGE PIPING ASSEMBLED BY TECHNICAL SALES CORPORATION READY TO SHIP FOR FIELD INSTALLATION.

THE MANUFACTURER OF PRE-FAB PUMP SOLUTIONS®:

TECHNICAL SALES CORPORATION, 4621 N. HALE AVE TAMPA, FL 33614 (813)876-9256

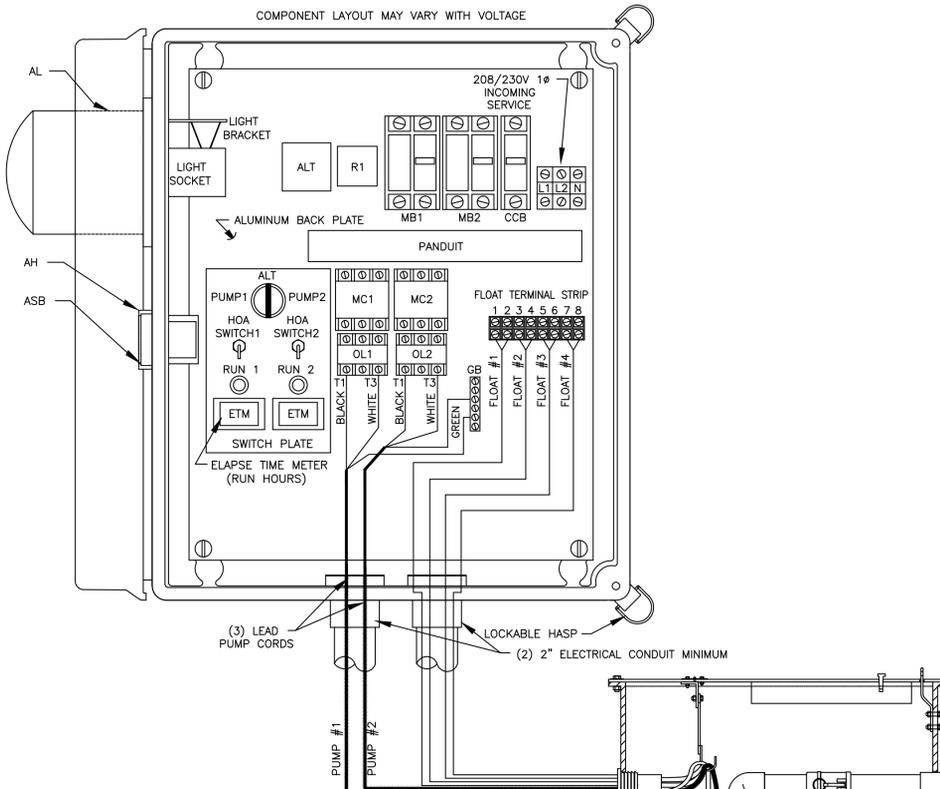
### Ebara Submersible Pumps



PUMP PERFORMANCE CURVE

### CONTROL PANEL LAYOUT

CW2000LETM2V - 208/230V 1Ø  
COMPONENT LAYOUT MAY VARY WITH VOLTAGE



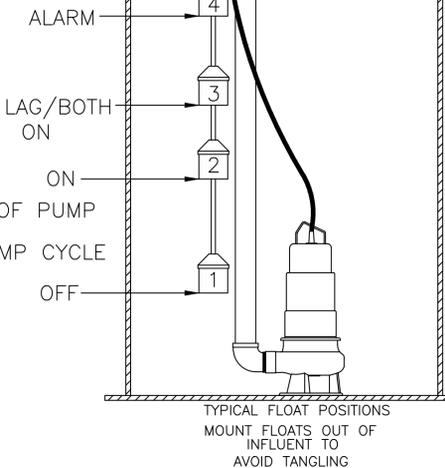
**CONTROL PANEL** - SHALL BE MANUFACTURED BY A "UL" LISTED SHOP  
CONTROL PANEL SHALL BE TSC MODEL # CW201 IN A NEMA 4X FIBERGLASS ENCLOSURE. THE PANEL SHALL MEET CODE REQUIREMENTS GOVERNING "ON SITE" PRIVATE LIFT STATIONS.

FLOAT SWITCHES AND CONTROL SYSTEM SHALL BE UL LISTED AND ALL COMPONENTS SHALL BE UL LISTED.

ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT WITH LIGHTNING ARRESTOR MOUNTED PER LOCAL CODES.

THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.

COMPONENTS WILL VARY ON 115 VOLT.



TYPICAL FLOAT POSITIONS  
MOUNT FLOATS OUT OF INFLUENT TO AVOID TANGLING

### LEGEND

|  |                                 |
|--|---------------------------------|
| AL   | VISUAL HIGH WATER ALARM LIGHT   |
| AH   | AUDIBLE HIGH WATER ALARM HORN   |
| ALT  | PUMP ALTERNATOR                 |
| ASB  | HIGH WATER ALARM SILENCE BUTTON |
| CCB  | CONTROL CIRCUIT BREAKER         |
| ETM  | ELAPSE TIME METER (RUN HOURS)   |
| GB   | GROUND BLOCK                    |
| HOA  | HAND - OFF - AUTO SWITCH        |
| MB   | MOTOR BREAKER                   |
| MC   | MOTOR CONTACTOR                 |
| OL   | ADJUSTABLE OVER LOAD RELAY      |
| R1   | ALARM SILENCE CONTROL RELAY     |
| PUMPS MUST HAVE INTEGRAL OVERLOAD PROTECTION |                                 |

TSC DUPLEX PUMP STATION  
FIBERGLASS WET WELL

TECHNICAL SALES  
CORPORATION

TSC PRE-FAB PUMP SOLUTIONS®

WATERWORKS & WASTEWATER SPECIALTIES

Representing Innovative Manufacturers

MODEL TSC2-36.0©

4621 N. HALE AVENUE PH (813)876-9256

TAMPA, FL 33614 FAX (813)874-1194

EMAIL: Sales@TSC Tampa.com REV-9 SCALE: N.T.S.

36" DUPLEX STATION WITH VALVE BOX AND CONTROL PANEL TSC2-36.0 R9©

| REVISIONS | DATE     | BY  | DESCRIPTION               |
|-----------|----------|-----|---------------------------|
| 1         | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2         | 08/12/15 | AVF | PER SFWMD COMMENTS        |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. I HAVE NOT BEEN DISQUALIFIED BY ANY HAND AND SEAL.

STATE CERT. OF AUTH. #00699221

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Phone: (727) 785-3939 Fax: (727) 785-3434  
www.ozonavehicle.com

PROJEC-T  
**MU-GROW**  
SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #:  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:

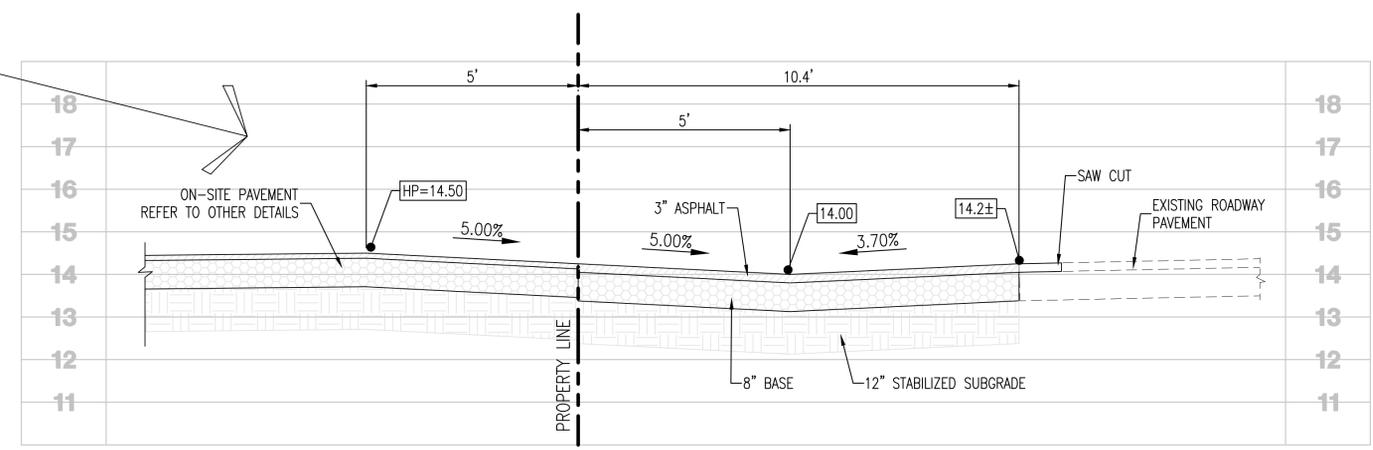
**C6.5**

SD = SHOP DRAWING REQUIRED REFER TO STANDARD NOTES FOR CONDITIONS

**LIFT STATION DETAIL**

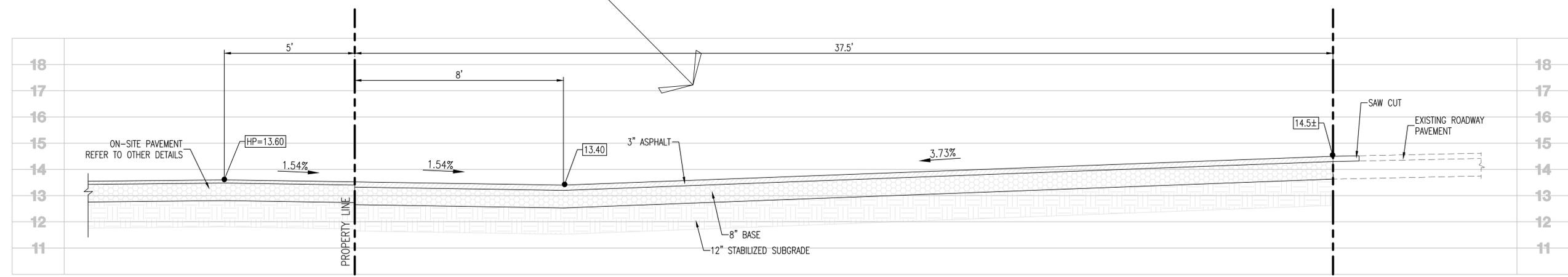
SCALE: NONE

WHIPPOORWILL PAVEMENT SECTION AND STRUCTURAL NUMBER:  
 3" TYPE SP 9.5 X 0.44 IN = 1.32  
 8" LIMEROCK (LBR100) X 0.18 = 1.44  
 12" STABILIZED SUBGRADE (TYPE B, LBR 40) X 0.08 = 0.96  
 CN = 3.72 > 3.50 (REQ'D)



2 WHIPPOORWILL DRIVEWAY SECTION  
 RW.1 NTS

GRAND BLVD. PAVEMENT SECTION AND STRUCTURAL NUMBER:  
 3" TYPE SP 9.5 X 0.44 IN = 1.32  
 8" LIMEROCK (LBR100) X 0.18 = 1.44  
 12" STABILIZED SUBGRADE (TYPE B, LBR 40) X 0.08 = 0.96  
 CN = 3.72 > 3.70 (REQ'D)



1 GRAND BLVD. DRIVEWAY SECTION  
 RW.1 NTS

SD = SHOP DRAWING REQUIRED  
 REFER TO STANDARD NOTES  
 FOR CONDITIONS

RIGHT OF WAY DETAILS  
 SCALE: NONE

| REVISIONS | DATE     | BY  | DESCRIPTION               |
|-----------|----------|-----|---------------------------|
| 1         | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2         | 08/12/15 | AVF | PER SWFWMD COMMENTS       |

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STATE CERT. OF AUTH. #0069622

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 www.ozonavehicle.com

PROJECT: MU-GROW  
 SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
 PASCO COUNTY, FLORIDA

PROJECT #:-  
 ORIG. DATE: 01/05/15  
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SHEET #:  
**RW.1**

**NOTE:**  
THIS PLAN IS PART OF AN OVERALL SET OF PLANS. THIS SHEET IS CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL OTHER DRAWINGS IN THE SET OF PLANS ON THE JOB SITE OR FOR BIDDING PURPOSES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SET OF PLANS TO ALL THOSE CONDUCTING WORK ON THIS PROJECT.

**TREE MITIGATION LEGEND**

-  EXISTING TREE TO REMAIN (APPROXIMATE CANOPY SHOWN)
-  TREE LESS THAN 10" (OR PALM) TO BE REMOVED
-  TREE TO BE BARRICADED
-  TREE 10" OR LARGER TO BE REMOVED (IN SUITABLE CONDITION TO COUNT FOR MITIGATION)
-  TREE NUMBER CORRESPONDING TO THE ARBORIST REPORT

**EXISTING TREE LEGEND**

-  6" OAK EXISTING OAK TREE (AS CALLED OUT)
-  6" PALM EXISTING PALM TREE (AS CALLED OUT)

**TREE INVENTORY ASSESSMENT PER REPORT:**

| TREE # | DESCRIPTION            | ASSESSMENT   |
|--------|------------------------|--|
| 1      | 29" DBH LAUREL OAK     | EXEMPT DUE TO HAZARD   |
| 2      | CABBAGE PALM           | EXEMPT SPECIES   |
| 3      | 16" DBH BLUEJACK OAK   | EXEMPT DUE TO HAZARD AND HEALTH                                      |
| 4      | 42" DBH LIVE OAK       | GOOD CONDITION, MITIGATION REQUIRED                                  |
| 5      | CABBAGE PALM           | EXEMPT SPECIES   |
| 6      | CABBAGE PALM           | EXEMPT SPECIES   |
| 7      | 18" DBH LIVE OAK       | EXEMPT DUE TO INSECT INFESTATION AND DIMINISHED STRUCTURAL INTEGRITY |
| 8      | 20" DBH LAUREL OAK     | EXEMPT DUE TO SEVERE STRUCTURAL DEFECT                               |
| 9      | CABBAGE PALM           | EXEMPT SPECIES   |
| 10     | 5" DBH TRIPLE OAK      | EXEMPT DUE TO SIZE   |
| 11     | CABBAGE PALM           | EXEMPT SPECIES   |
| 12     | 10" DBH DBL LAUREL OAK | EXEMPT DUE TO STRUCTURE AND HAZARD                                   |
| A1     | 14" OAK                | OBSERVED TO BE IN DECLINE (NOT IN REPORT)                            |
| A2     | 20" OAK                | OBSERVED TO BE IN DECLINE (NOT IN REPORT)                            |
| A3     | CABBAGE PALM           | EXEMPT SPECIES (NOT IN REPORT)                                       |

**NOTE:**  
A TREE ASSESSMENT WAS CONDUCTED BY "TREE HAPPY" (RICHARD HAGUE). A COPY OF THE ASSESSMENT SHALL BE PROVIDED TO PASCO COUNTY. PER THE REPORT, OUT OF ALL OF THE TREES PROPOSED FOR REMOVAL THAT ARE 10" OR LARGER, ONLY ONE 48" OAK IS IN GOOD CONDITION AND SHALL BE MITIGATED FOR.

**TREE INVENTORY AND MITIGATION SUMMARY:**

**EXISTING (BEFORE DEVELOPMENT):**  
 TOTAL OAK TREES 10" OR LARGER EXISTING (ALL CONDITIONS) = 184"  
 TOTAL 10" TREES IN QUALITY CONDITION PER ARBORIST ASSESSMENT = 42"  
 TOTAL OTHER TREES 10" OR LARGER EXISTING (NOT INCLUDING PALMS) = 0"

**TO BE REMOVED:**  
 TOTAL OAK TREES 10" OR LARGER TO BE REMOVED = 42" X 1 = 42"  
 TOTAL OTHER TREES 10" OR LARGER TO BE REMOVED\* = 0" X 1/3 = 0"  
 TOTAL TREE IMPACT = 42"

**PRESERVED TREES 9" OR LESS:**  
 TOTAL TREES 9" OR LESS TO BE PRESERVED = 0"

**PROPOSED TREES PER LANDSCAPE PLAN:**  
 TOTAL 3" TREES PROPOSED = 24 X 3 = 72"

TOTAL IMPACT = 42"  
 TOTAL MITIGATION = 72"

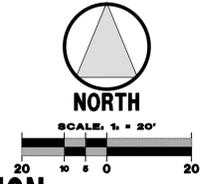
NO ADDITIONAL TREES PROPOSED/REQUIRED FOR MITIGATION

\* TREES TO BE REMOVED IN THIS TABLE ONLY QUANTIFIES TREES IN GOOD CONDITION. TREES THAT ARE IN DECLINE OR OTHER NEGATIVE CONDITION ARE NOT TAKEN INTO ACCOUNT IN THIS CALCULATION.

| TOTAL TREES ON SITE - 10" DBA OR LARGER |     |                         |                            |                  |     |                           |
|---|-----|-------------------------|----------------------------|------------------|-----|---------------------------|
| Live Oaks                               |     |                         | Other Trees Also Note Type |                  |     |                           |
| Size (Inches)                           | No. | Total Inches-Oak Onsite | Type                       | Size (Inches)    | No. | Total Inches-Other Onsite |
| 18                                      | 1   | 18                      | Laurel Oak                 | 5                | 3   | 15                        |
| 42                                      | 1   | 42                      |                            | 10               | 1   | 10                        |
|   |     |                         |                            | 14               | 1   | 14                        |
|   |     |                         |                            | 20               | 2   | 40                        |
|   |     |                         |                            | 29               | 1   | 29                        |
|   |     |                         | Bluejack Oak               | 16               | 1   | 16                        |
|   |     |                         |                            |                  |     |                           |
| Total Oak: 60                           |     |                         |                            | Total Other: 124 |     |                           |

**NOTE:**  
THIS TABLE IS A RAW SUMMARY. THE ONLY TREE IN GOOD CONDITION PER ARBORIST REPORT IS THE 42" LIVE OAK.

| TREE REMOVAL & REPLACEMENT:<br>TREES TO BE REMOVED |              |             |              |
|--|--------------|-------------|--------------|
| LIVE OAKS  |              | OTHER TREES |              |
| NUMBER   | TOTAL INCHES | NUMBER      | TOTAL INCHES |
| 1  | 42           | 0           | 0            |
| TOTAL TREES TO BE PLANTED:<br>24" X 3" = 72"       |              |             |              |



**TREE PRESERVATION AND MITIGATION PLAN**  
SCALE: 1"=20'

| REVISIONS | DATE                      | BY  | DESCRIPTION |
|-----------|---------------------------|-----|-------------|
| 08/12/15  | PER PASCO COUNTY COMMENTS | AVF |             |
| 08/12/15  | PER SFWMD COMMENTS        | AVF |             |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. MY LICENSE NUMBER IS 12000. I AM NOT PROVIDING ANY DESIGN OR CONSTRUCTION BY MY HAND AND SEAL.

Gary A. Boucher, P.E. #2885

STATE CERT. OF ARCH. #00060622

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PROJ-0102-11

**MU-GROW**  
 SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
 PASCO COUNTY, FLORIDA

PROJECT #:-  
 ORIG. DATE: 01/05/15  
 DRAWN BY: AVF  
 SCALE: AS SHOWN

SHEET #:  
**TP.1**

**NOTE:**  
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**TOTAL NEW PLANTINGS REQUIRED PER CODE:**  
(ADJUSTED FOR EXISTING TREES, SHRUBS AND GROUND COVERS LOCATED WITHIN REQUIRED LANDSCAPE AREAS)

|                       |   |
|-----------------------|---|
| NORTH PROPERTY LINE:  | TREES = 8<br>SHRUBS = 60<br>GROUND COVER PLANTINGS = 1,600 SF<br>SODDED AREA = 800 SF   |
| EAST PROPERTY LINE:   | TREES = 5<br>SHRUBS = 25<br>GROUND COVER PLANTINGS = 900 SF<br>SODDED AREA = 450 SF   |
| SOUTH PROPERTY LINE:  | TREES = 3<br>SHRUBS = 42<br>SODDED AREA = 1,610 SF (MOSTLY SLOPED)  |
| WEST PROPERTY LINE:   | TREES = 4<br>SHRUBS = 86<br>SODDED AREA = 2,570 SF (MOSTLY SLOPED)  |
| INTERIOR LANDSCAPING: | TREES = 5<br>SHRUBS = 25 (ASSUMING 5 PER REQUIRED TREE)<br>GROUND COVER PLANTINGS = 714 SF  |
| BUILDING PERIMETER:   | TREES = 1<br>SHRUBS = 5<br>GROUND COVER = 16 LF X 10 X 0.5 = 80 SF  |
| <b>TOTALS:</b>        | <b>TOTAL NEW TREES REQUIRED = 26</b><br><b>TOTAL NEW SHRUBS REQUIRED = 243</b><br><b>TOTAL NEW GROUND COVER REQUIRED = 3,294 SF</b> |

**POND VISIBLE FROM RIGHT OF WAY**  
PLANTINGS REQUIRED:  
ROW OF TREES @ 50' O.C. AVG.  
TYPE "D" BUFFER AT THIS LOCATION ACHIEVES THIS  
POND SHAPE IS NON RECTANGULAR  
POND SIZE PROHIBITS IRREGULAR SHAPE  
PROVIDING SHRUBS TO ACCOMMODATE VISIBILITY  
SHRUBS PROPOSED (ALONG 60 LF): 1 PER 3LF = 20

**15' LANDSCAPE BUFFER TYPE D**  
PLANTINGS REQUIRED:  
ROW OF TREES @ 30' O.C. AVG.  
5 SHRUBS PER TREE  
PROPERTY LINE LENGTH EXCLUDING ACCESS DRIVE: 240'  
TOTAL TREES REQUIRED = 8  
TOTAL EXISTING TREES = 0  
HEDGE REQUIRED: 8X5 = 40  
BUFFER SIZE: 240'X10' = 2,400 SF  
MINIMUM GROUNDCOVER: 2,400 SF X 2/3 = 1,600 SF

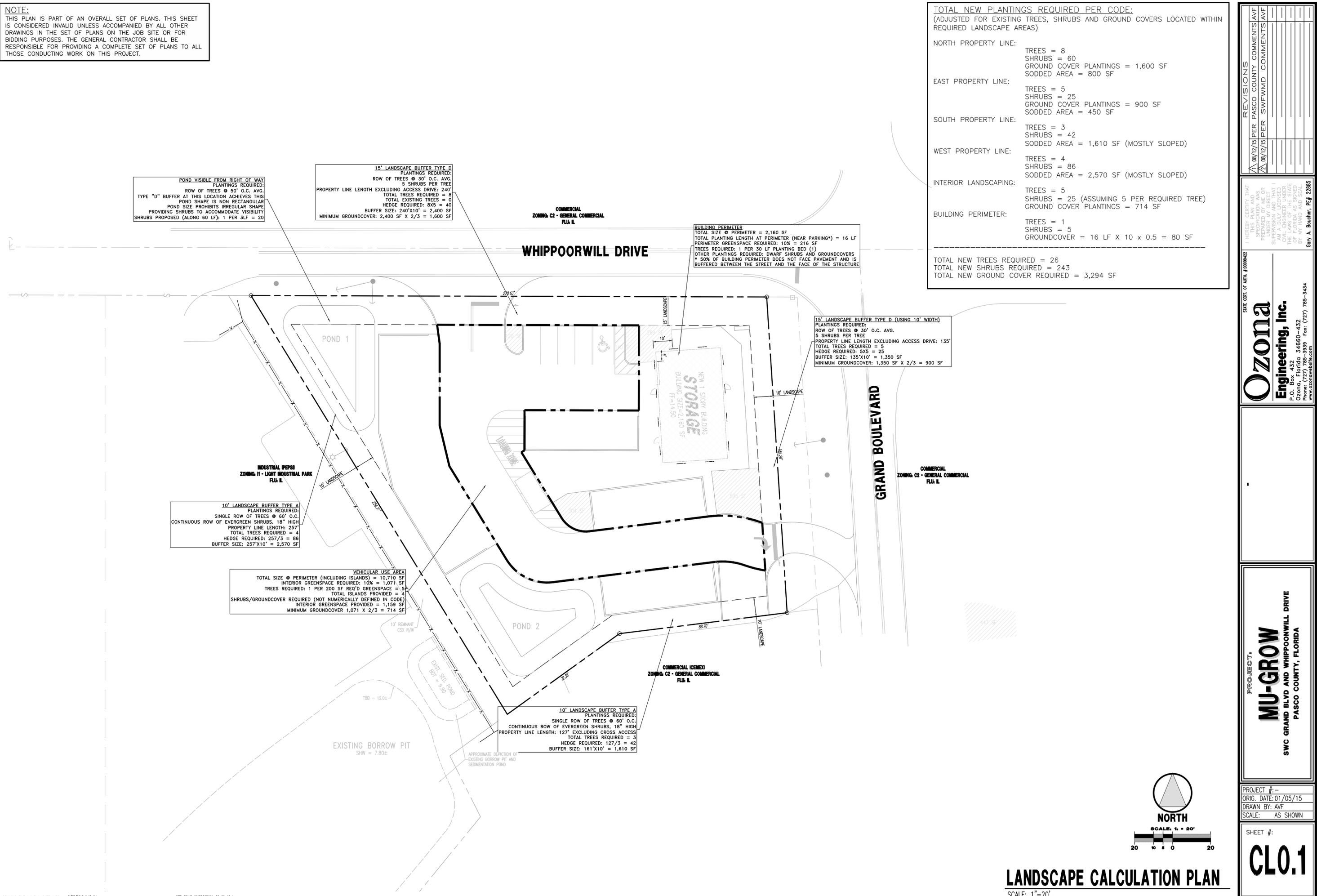
**BUILDING PERIMETER**  
TOTAL SIZE @ PERIMETER = 2,160 SF  
TOTAL PLANTING LENGTH AT PERIMETER (NEAR PARKING\*) = 16 LF  
PERIMETER GREENSPACE REQUIRED: 10% = 216 SF  
TREES REQUIRED: 1 PER 30 LF PLANTING BED (1)  
OTHER PLANTINGS REQUIRED: DWARF SHRUBS AND GROUNDCOVERS  
\* 50% OF BUILDING PERIMETER DOES NOT FACE PAVEMENT AND IS BUFFERED BETWEEN THE STREET AND THE FACE OF THE STRUCTURE

**15' LANDSCAPE BUFFER TYPE D (USING 10' WIDTH)**  
PLANTINGS REQUIRED:  
ROW OF TREES @ 30' O.C. AVG.  
5 SHRUBS PER TREE  
PROPERTY LINE LENGTH EXCLUDING ACCESS DRIVE: 135'  
TOTAL TREES REQUIRED = 5  
HEDGE REQUIRED: 5X5 = 25  
BUFFER SIZE: 135'X10' = 1,350 SF  
MINIMUM GROUNDCOVER: 1,350 SF X 2/3 = 900 SF

**10' LANDSCAPE BUFFER TYPE A**  
PLANTINGS REQUIRED:  
SINGLE ROW OF TREES @ 60' O.C.  
CONTINUOUS ROW OF EVERGREEN SHRUBS, 18" HIGH  
PROPERTY LINE LENGTH: 257'  
TOTAL TREES REQUIRED = 4  
HEDGE REQUIRED: 257/3 = 86  
BUFFER SIZE: 257'X10' = 2,570 SF

**VEHICULAR USE AREA**  
TOTAL SIZE @ PERIMETER (INCLUDING ISLANDS) = 10,710 SF  
INTERIOR GREENSPACE REQUIRED: 10% = 1,071 SF  
TREES REQUIRED: 1 PER 200 SF REQ'D GREENSPACE = 5  
TOTAL ISLANDS PROVIDED = 4  
SHRUBS/GROUNDCOVER REQUIRED (NOT NUMERICALLY DEFINED IN CODE):  
INTERIOR GREENSPACE PROVIDED = 1,159 SF  
MINIMUM GROUNDCOVER 1,071 X 2/3 = 714 SF

**10' LANDSCAPE BUFFER TYPE A**  
PLANTINGS REQUIRED:  
SINGLE ROW OF TREES @ 60' O.C.  
CONTINUOUS ROW OF EVERGREEN SHRUBS, 18" HIGH  
PROPERTY LINE LENGTH: 127' EXCLUDING CROSS ACCESS  
TOTAL TREES REQUIRED = 5  
HEDGE REQUIRED: 127/3 = 42  
BUFFER SIZE: 127'X10' = 1,270 SF



REVISIONS

| NO. | DATE     | BY  | DESCRIPTION               |
|-----|----------|-----|---------------------------|
| 1   | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
| 2   | 08/12/15 | AVF | PER SFWMD COMMENTS        |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. MY LICENSE NO. IS 15000. GARY A. BOUCHER, P.E. 2/28/85

STATE CERT. OF AUTH. #0060622

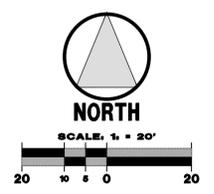
**Ozona Engineering, Inc.**  
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www.ozonaweb.com

PROJ# 110101

**MU-GROW**  
SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
PASCO COUNTY, FLORIDA

PROJECT #:-  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

SHEET #:  
**CLO.1**



**LANDSCAPE CALCULATION PLAN**  
SCALE: 1"=20'

**NOTE:**  
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**TREE TYPE DIVERSITY CALCULATIONS:**  
TOTAL NUMBER OF NEW TREES REQUIRED = 26  
TOTAL TREES PROVIDED = 26  
MINIMUM SPECIES = 6  
TOTAL TREES THAT ARE DROUGHT TOLERANT = 26 (100%)  
TOTAL TREES THAT ARE FLORIDA NATIVE = 22 (85%)  
ALL PROPOSED PLANTINGS SHALL BE FLORIDA GRADE #1 OR BETTER

**GROUND COVER AT BUILDING NOTE:**  
50% LANDSCAPING REQUIRED AROUND BUILDING PERIMETER, INCLUDING TREES, SHRUBS AND GROUND COVER, 100% OF PLANTABLE AREA HAS LANDSCAPING.

| TREE SCHEDULE   |       |                             |                      |  |                    |                |                  |
|---|-------|-----------------------------|----------------------|--|--------------------|----------------|------------------|
| TREE NO.  | QTY.  | SCIENTIFIC NAME             | COMMON NAME          | MINIMUM SIZE REQUIREMENTS                  | APPROX. MATURE HT. | NATIVE FLORIDA | DROUGHT TOLERANT |
| <b>SHADE/MEDIUM TREES</b>   |       |                             |                      |  |                    |                |                  |
| P1  | 5 X 3 | SABEL PALMETTO              | CABBAGE PALM         | 10' HEIGHT (AT INSTALLATION) - GROUPS OF 3 | 60'                | YES            | YES              |
| A1  | 3     | JUNIPERUS SUECICA           | SOUTHERN RED CEDAR   | 3" CALIPER, 10' HEIGHT (AT INSTALLATION)   | 40'                | YES            | YES              |
| A2  | 2     | JUNIPERUS SUECICA           | SOUTHERN RED CEDAR   | 3" CALIPER, 10' HEIGHT (AT INSTALLATION)   | 40'                | YES            | YES              |
| 3 PALMS = 1 SHADE TREE.   |       |                             |                      |  |                    |                |                  |
| <b>UNDERSTORY</b>   |       |                             |                      |  |                    |                |                  |
| B1  | 5     | ILEX ATTENUATA              | ILEX ATTENUATA       | 3" CALIPER, 10' HEIGHT (AT INSTALLATION)   | 25'                | YES            | YES              |
| B2  | 4     | LAURUSTROBILUS INDICA       | CREPE MYRTLE         | 3" CALIPER, 10' HEIGHT (AT INSTALLATION)   | 25'                | NO             | YES              |
| B3  | 7     | ILEX X. 'NELLIE R. STEVENS' | NELLIE STEVENS HOLLY | 3" CALIPER, 10' HEIGHT (AT INSTALLATION)   | 25'                | YES            | YES              |
| UNDERSTORY TREES ARE USED NEAR UTILITIES AND FOUNDATIONS OF STRUCTURES. |       |                             |                      |  |                    |                |                  |
| <b>SHRUBS</b>   |       |                             |                      |  |                    |                |                  |
| C1  | 128   | PITOSPORUM TORBIA           | PITOSPORUM           | 24" HEIGHT (AT INSTALLATION)               | 10'                | YES            | YES              |
| C2  | 115   | BAPHALEPS INDICA            | INDIAN HAWTHORN      | 24" HEIGHT (AT INSTALLATION)               | 5'                 | YES            | NO               |
| <b>GROUND COVER</b>   |       |                             |                      |  |                    |                |                  |
| D1  | -     | (TURF-GRASS)                | BAHIA SOD            | -  | -                  | -              | -                |
| D2  | 1130  | TRACHELOSPERUM ASHBOOM      | CONFEDERATE JASMINE  | -  | 8"                 | YES            | YES              |
| D3  | 1070  | LANTANA MONTEBENEGOS        | WEeping LANTANA      | -  | 12"                | NO             | YES              |
| D4  | 1100  | LIRIOPE MOSCARI             | GIANT LIRIOPE        | -  | 12"                | NO             | YES              |

| LANDSCAPE LEGEND |  |
|------------------|--|
|                  | GRASS  |
|                  | GROUND COVER                                 |
|                  | EXISTING TREE CANOPY (APPROX.)               |
|                  | PROPOSED TREE - REFER TO SCHEDULE FOR TYPE   |
|                  | PROPOSED SHRUBS - REFER TO SCHEDULE FOR TYPE |
|                  | SHRUB TYPE TAG WITH QUANTITY                 |
|                  | GROUND COVER TYPE TAG WITH QUANTITY IN SF    |

| EXISTING TREE LEGEND |  |
|----------------------|--|
|                      | 6" OAK EXISTING OAK TREE (AS CALLED OUT)   |
|                      | 6" PALM EXISTING PALM TREE (AS CALLED OUT) |

**EXOTIC SPECIES NOTE:**  
ALL EXOTIC SPECIES, I.E., BRAZILIAN PEPPER (SCHINUS TEREBINTHIFOLIUS), PUNK TREES (MELALEUCA QUINQUENARIA), AND CHINESE TALLOW (APIUM SEBIFERUM) MUST BE REMOVED FROM THE SITE. WHERE NECESSARY DUE TO THEIR PROXIMITY TO PROTECTED PLANT MATERIAL, HAND REMOVAL WILL BE REQUIRED. SHOULD THIS REMOVAL BE TO A DEGREE THAT A POTENTIAL FOR EROSION IS CREATED, THE AREA MUST BE RESTABILIZED WITH SUITABLE MATERIAL.

**MAINTENANCE:**  
THE OWNER OF THE PROPERTY WILL MAINTAIN THE LANDSCAPING.

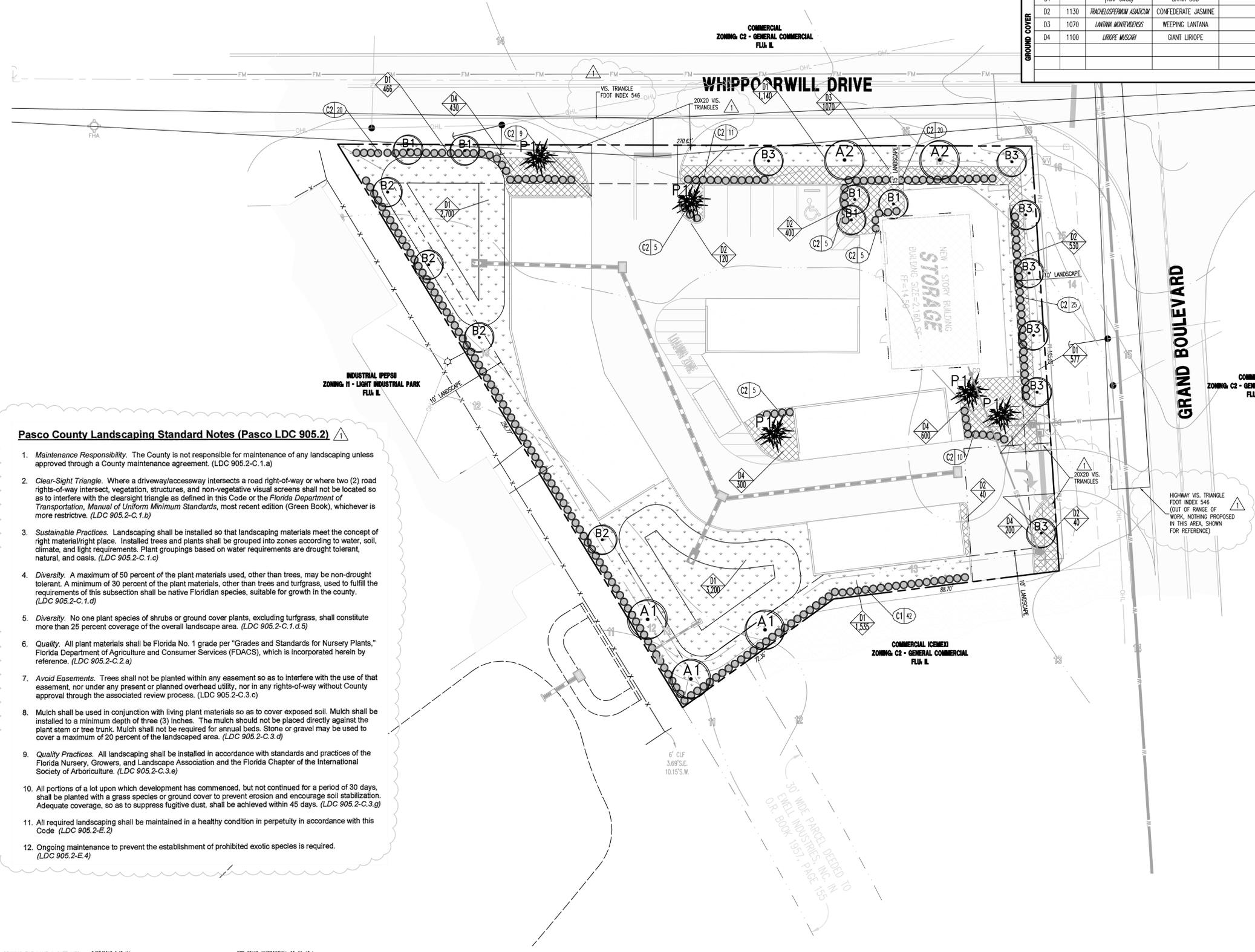
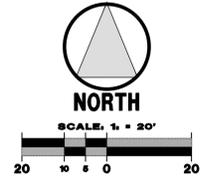
**TREE SUBSTITUTIONS:**  
DUE TO AVAILABILITY AND PREFERENCES, CONTRACTOR MAY SUBSTITUTE TREE SPECIES FOR OTHERS IN THE SCHEDULE, SO LONG AS DIVERSITY AND SIZES ARE MAINTAINED AND PROPOSED TREES ARE ON THE APPROVED SPECIES LIST. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LOCAL JURISDICTION BEFORE INSTALLATION.

**IRRIGATION NOTES:**

- IRRIGATION TO BE PROVIDED FROM IRRIGATION METER. SEE SHEET C5.1
- THE GROUP SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE LANDSCAPING: KD & AA PROPERTIES, LLC 2922 GRAND BLVD. HOLIDAY, FL 34690

**SIGHT TRIANGLE NOTE:**

- ERECTING OR GROWING ANY OBSTRUCTIONS OVER THREE FEET IN HEIGHT ABOVE THE ELEVATION OF THE LOWEST POINT ON THE CROWN OF THE ADJACENT ROADWAY WITHIN THE SIGHT TRIANGLE SHALL BE PROHIBITED.
- LANDSCAPING SHALL BE PLANTED IN SUCH A MANNER AS NOT TO IMPEDE THE STORMWATER RUNOFF FLOW TO OR IN A DITCH, SWALE OR POND.



- Pasco County Landscaping Standard Notes (Pasco LDC 905.2)**
- Maintenance Responsibility.** The County is not responsible for maintenance of any landscaping unless approved through a County maintenance agreement. (LDC 905.2-C.1.a)
  - Clear-Sight Triangle.** Where a driveway/accessway intersects a road right-of-way or where two (2) road rights-of-way intersect, vegetation, structures, and non-vegetative visual screens shall not be located so as to interfere with the clear-sight triangle as defined in this Code or the Florida Department of Transportation, Manual of Uniform Minimum Standards, most recent edition (Green Book), whichever is more restrictive. (LDC 905.2-C.1.b)
  - Sustainable Practices.** Landscaping shall be installed so that landscaping materials meet the concept of right material/right place. Installed trees and plants shall be grouped into zones according to water, soil, climate, and light requirements. Plant groupings based on water requirements are drought tolerant, natural, and oasis. (LDC 905.2-C.1.c)
  - Diversity.** A maximum of 50 percent of the plant materials used, other than trees, may be non-drought tolerant. A minimum of 30 percent of the plant materials, other than trees and turfgrass, used to fulfill the requirements of this subsection shall be native Floridian species, suitable for growth in the county. (LDC 905.2-C.1.d)
  - Diversity.** No one plant species of shrubs or ground cover plants, excluding turfgrass, shall constitute more than 25 percent coverage of the overall landscape area. (LDC 905.2-C.1.d.5)
  - Quality.** All plant materials shall be Florida No. 1 grade per "Grades and Standards for Nursery Plants," Florida Department of Agriculture and Consumer Services (FDACS), which is incorporated herein by reference. (LDC 905.2-C.2.a)
  - Avoid Easements.** Trees shall not be planted within any easement so as to interfere with the use of that easement, nor under any present or planned overhead utility, nor in any rights-of-way without County approval through the associated review process. (LDC 905.2-C.3.c)
  - Mulch shall be used in conjunction with living plant materials so as to cover exposed soil.** Mulch shall be installed to a minimum depth of three (3) inches. The mulch should not be placed directly against the plant stem or tree trunk. Mulch shall not be required for annual beds. Stone or gravel may be used to cover a maximum of 20 percent of the landscaped area. (LDC 905.2-C.3.d)
  - Quality Practices.** All landscaping shall be installed in accordance with standards and practices of the Florida Nursery, Growers, and Landscape Association and the Florida Chapter of the International Society of Arboriculture. (LDC 905.2-C.3.e)
  - All portions of a lot upon which development has commenced, but not continued for a period of 30 days, shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization.** Adequate coverage, so as to suppress fugitive dust, shall be achieved within 45 days. (LDC 905.2-C.3.g)
  - All required landscaping shall be maintained in a healthy condition in perpetuity in accordance with this Code.** (LDC 905.2-E.2)
  - Ongoing maintenance to prevent the establishment of prohibited exotic species is required.** (LDC 905.2-E.4)

| REVISED | DATE     | BY  | REVISIONS                 |
|---------|----------|-----|---------------------------|
|         | 08/12/15 | AVF | PER PASCO COUNTY COMMENTS |
|         | 08/12/15 | AVF | PER SFWMD COMMENTS        |

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. I HAVE NOT BEEN RECALLED BY MY HAND AND SEAL.

Gary A. Boucher, P.E. 22885

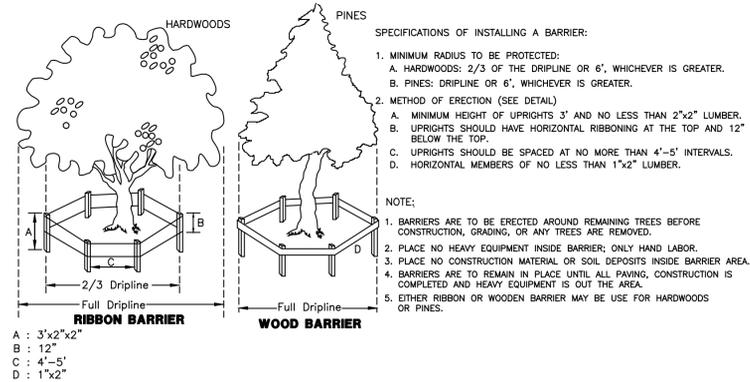
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PROJECT: SWC GRAND BLVD AND WHIPPOORWILL DRIVE  
ORIG. DATE: 01/05/15  
DRAWN BY: AVF  
SCALE: AS SHOWN

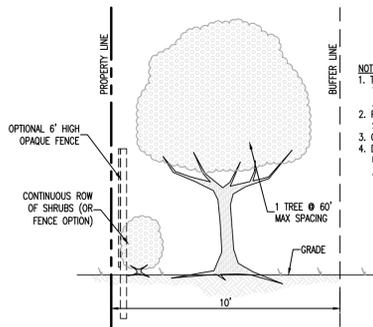
**MU-GROW**  
PASCOCOUNTY, FLORIDA

SHEET #: **CL1.1**



**PROTECTIVE BARRIER DETAIL**

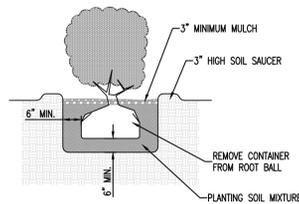
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**PASCO COUNTY LANDSCAPE BUFFER TYPE A**

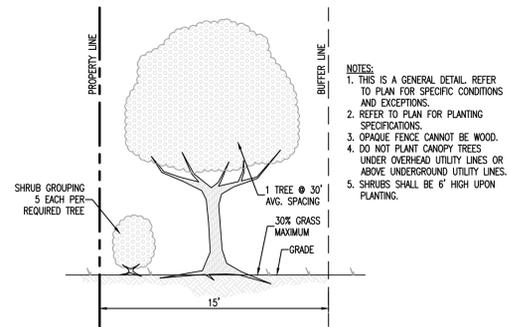
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- SHRUB PLANTING NOTES:**
- REFER TO LANDSCAPE PLAN FOR GROUPINGS.
  - PLANTING HOLES MUST BE SLOPED (NOT COMPACTED)
  - SHRUBS SHALL BE INSTALLED SUCH THAT THE TOP OF THE ROOT MASS IS LEVEL WITH THE SURFACE OF THE PLANTING HOLE.
  - TO PREVENT FUNGAL INFECTION, MULCH SHALL BE PULLED BACK A FEW INCHES FROM THE BASE OF NEW SHRUBS.
  - ALL REQUIRED LANDSCAPING SHALL BE FLORIDA GRADE #1 OR BETTER.



**SHRUB PLANTING DETAIL**

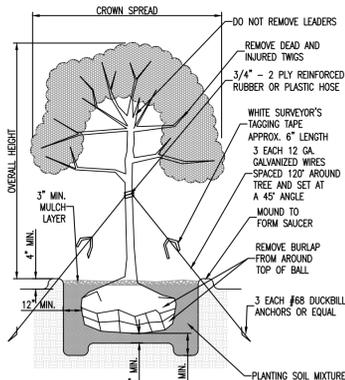
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**PASCO COUNTY LANDSCAPE BUFFER TYPE D**

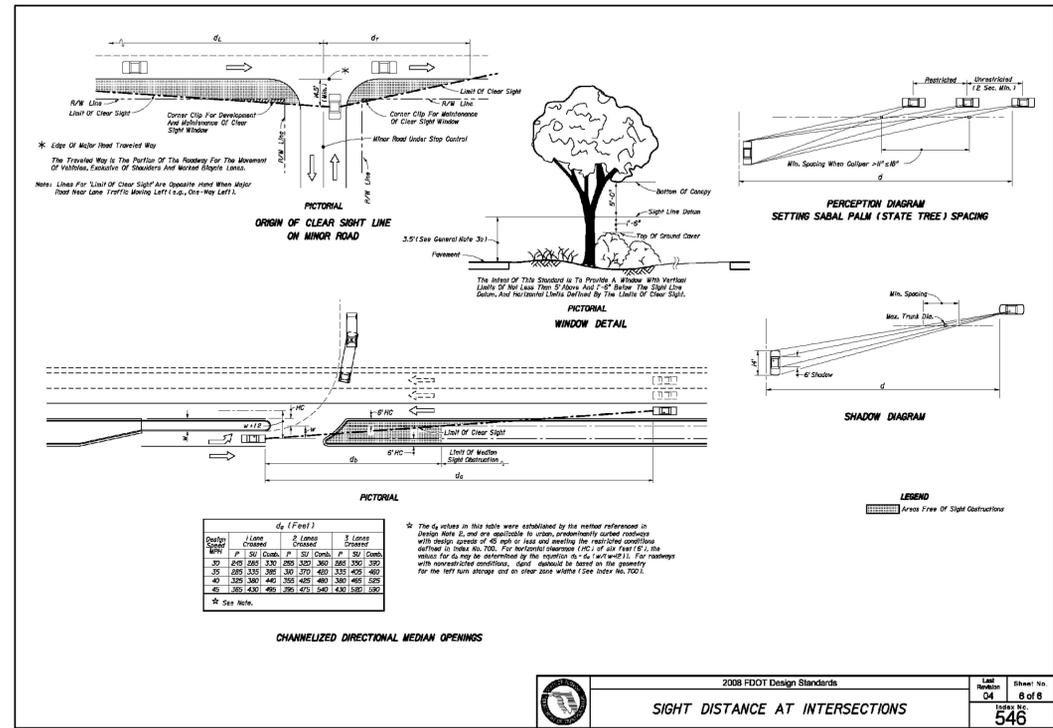
NTS

- TREE PLANTING NOTES:**
- REMOVE STAKES AND SUPPORT WIRE AFTER ONE COMPLETE GROWING SEASON.
  - PLANTING HOLES MUST BE SLOPED (NOT COMPACTED) AND A MINIMUM OF 18"-24" INCHES WIDER THAN THE DIAMETER OF THE ROOT BALL.
  - TREES SHALL BE INSTALLED SUCH THAT THE TOP OF THE ROOT MASS IS LEVEL WITH THE SURFACE OF THE PLANTING HOLE.
  - TO PREVENT FUNGAL INFECTION, MULCH SHALL BE PULLED BACK A FEW INCHES FROM THE BASE OF NEW TREES.
  - IF SOIL AMENDMENTS ARE NECESSARY, A SUITABLE SOIL MIXTURE SHALL BE USED IN THE ENTIRE PLANTING AREA (NOT JUST THE PLANT PIT) TO A DEPTH CONSISTENT WITH THE ROOT DEVELOPMENT OF THE PROPOSED PLANT MATERIAL.
  - ALL REQUIRED LANDSCAPING SHALL BE FLORIDA GRADE #1 OR BETTER.

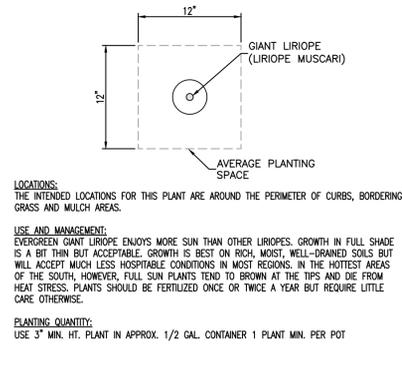


**TREE PLANTING DETAIL**

NTS

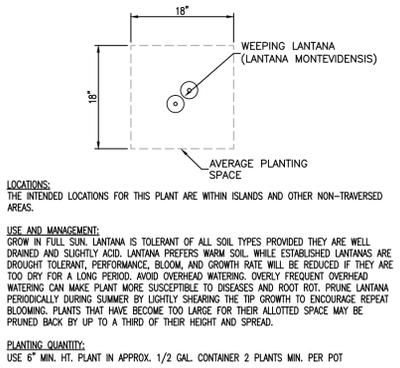


2008 FDOT Design Standards  
**SIGHT DISTANCE AT INTERSECTIONS**  
 SHEET NO. 546



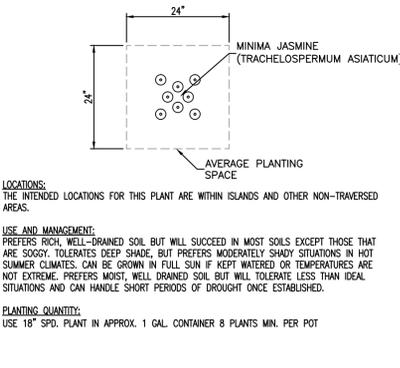
**GIANT LIRIOPE PLANTING DETAIL**

NTS



**WEEPING LANTANA PLANTING DETAIL**

NTS



**JASMINE PLANTING DETAIL**

NTS

**LANDSCAPE AND IRRIGATION NOTES AND SPECIFICATIONS**

- ALL PROPOSED LANDSCAPING SHALL BE FLORIDA GRADE #1 OR BETTER.
- ALL MINIMUM STANDARDS PER THE LOCAL LAND DEVELOPMENT CODE SHALL BE FOLLOWED. HIGHER STANDARDS SUCH AS HEIGHT, CALIPER OR DBH MAY BE SPECIFICALLY CALLED OUT ON THE PLAN AND SHALL BE INSTALLED PER THAT SPECIFICATION.
- PRUNING OF EXISTING TREES MAY BE REQUIRED AND SHALL BE DONE IN A MANNER IN ACCORD WITH GOOD PRACTICE AND LOCAL CODES.

SD = SHOP DRAWING REQUIRED REFER TO STANDARD NOTES FOR CONDITIONS

**LANDSCAPE CODE DETAILS**  
SCALE: NONE

REVISIONS

| NO. | DATE     | DESCRIPTION               |
|-----|----------|---------------------------|
| 1   | 08/12/15 | PER PASCO COUNTY COMMENTS |
| 2   | 08/12/15 | PER SWFWMD COMMENTS       |

STATE CERT. OF AUTH. #00069022  
**Ozona Engineering, Inc.**  
 P.O. Box 432  
 Ozona, Florida 34660-432  
 Phone: (727) 785-3939 Fax: (727) 785-3434  
 www.ozonavehicle.com

HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA. REGISTERED BY MY HAND AND SEAL.

Gary A. Baucher, PE # 22885

PROJECT #:  
 ORIG. DATE: 01/05/15  
 DRAWN BY: AVF  
 SCALE: AS SHOWN

**MU-GROW**  
 SWC GRAND BLVD AND WHIPPOONWILL DRIVE  
 PASCO COUNTY, FLORIDA

SHEET #:  
**CL1.2**

CO 13 LLC  
C/O COLONIAL STORAGE LLC  
PO BOX 58  
NEW PORT RICHEY, FL 34656

BAY TO GULF HOLDINGS LLC  
1406 N DALE MABRY HWY  
STEL200  
TAMPA, FL 33607

BENNETT RONNIE L II & PETRA  
3016 CORONA DR  
HOLIDAY FL 34690

BOTHELHO REAL ESTATE  
HOLDINGS, INC  
6920 COLLINGSWOOD CT  
NEW PORT RICHEY, FL 34655

BOTTLING GROUP LLC  
TAX DEPT 3A-300  
PO BOX 660937  
DALLAS, TX 75266

BUSS JOHN & LAURA M  
5548 AULD LANE  
HOLIDAY, FL 34690

CALDERON MAXIMO &  
CADET GLORIA V  
3030 BLUEBIRD DR  
HOLIDAY, FL 34690

CECALA GIUSEPPE & ROSA  
4501 PARK AVE, APT 1  
BROOKFIELD, IL 60513

COLLINS MARK J  
5332 BOBWHITE DR  
HOLIDAY, FL 34690

CONDOGEORGE GEORGE  
2013 29TH ST  
ASTORIA, NY 11105

CSX TRANSPORTATION INC  
C/O TAX DEPT FAM LINES RM 1208  
500 WATER STREET  
JACKSONVILLE, FL 32202

CURLICA DEVELOPMENT  
COMPANY  
2940 GRAND BLVD. UNIT 1  
HOLIDAY FL 34690

DAVIS HEATHER DAWN &  
WALTER LEE  
3401 CORONA DR  
HOLIDAY, FL 34690

DEPCO VISIONS LLC  
1746 NODDING THISTLE DR  
NEW PORT RICHEY, FL34655

DEWITT LONNIE & DEBORAH J  
5540 AULD LN  
HOLIDAY, FL 34690

EVANS PAUL M  
6315 SPOONBILL DR  
NEW PORT RICHEY, FL 34652

EWELL INDUSTRIES INC  
C/O CEMEX PROPERTY TAX DEPT  
1501 BELVEDERE RD  
WEST PALM BEACH, FL 33406

FORD DUSTIN  
3017 CORONA DR  
HOLIDAY, FL 34690

FROST JEROME  
3029 CORONA DR  
HOLIDAY, FL 34690

FUSCO FAM IRREV TRUST  
FUSCO AJ & FUSCO SJ TRUSTEES  
10554 PONTOFINNO CIR.  
TRINITY, FL 34655

HILGENBERG SUSAN J  
3015 BLUE BIRD DR  
HOLIDAY, FL 34690

HOLIDAY FREE METHODIST  
CHURCH, INC.  
5330 WHIPPOORWILL DR  
HOLIDAY, FL 34690

JOHNSTON ROBERT L &  
GEORGEANN D  
5541 MIRANDA DR  
HOLIDAY, FL 34690

KARIOFILIS PROPERTIES LLC  
5640 MIRANDA DR  
HOLIDAY, FL 34690

KD & AA PROPERTIES LLC  
2922 GRAND BLVD  
HOLIDAY, FL 34690

LOGAN OUTDOOR  
ADVERTISING INC.  
1716 W LEMON STREET  
TAMPA, FL 33606

LUPI BARRY C & LINDA SUE  
5547 AULD LANE  
HOLIDAY, FL 34690

MARQUIS KAREN A  
5324 BOBWHITE DR  
HOLIDAY, FL 34690

MATHER GEORGE & CAROL J  
PO BOX 1496  
DUNEDIN, FL 34697

MOUGROS PROPERTIES LLC  
2922 GRAND BLVD  
HOLIDAY, FL 34690



MRAZ KENNETH & DENIA  
3004 BLUE BIRD DR  
HOLIDAY, FL 34690

NORMAN GARY D  
5655 ROWLEY BLVD  
WATERFORD, MI 48329

OJ HARVEY INC  
PO BOX 320334  
TAMPA, FL 33679

PASCO COUNTY FACILITIES  
MANAGEMENT DEPT  
7220 OSTEEN RD  
NEW PORT RICHEY, FL 34653

QT PROPERTIES LLC  
1250 DINNERBELL LN  
DUNEDIN, FL 34698

RYDZEWSKA DOROTA &  
NOSOWICZ JOSEF  
2110 TARPON LANDINGS DR  
TARPON SPRINGS, FL 34688

SMATCHER INVESTMENT  
HOLDINGS LLC  
3396 PINNACLE CT S  
PALM HARBOR, FL 34684

TOSCIDIS TASSO & FELITSA  
5328 SWALLOW DR  
NEW PORT RICHEY, FL 34652

TROXELL BOB & JENNITA  
6753 RANCHWOOD LOOP  
NEW PORT RICHEY, FL 34653

WALSH THOMAS D & CHRISTINA M  
3042 BLUE BIRD DR  
HOLIDAY, FL 34690

WALTON JOSEPH F  
1905 GARFIELD ST  
LINCOLN, NE  
68502

ZARILLO ROBERT & NORMA  
3023 CORONA DR  
HOLIDAY, FL 34690



1000

U.S. POSTAGE  
PAID  
PALM HARBOR, FL  
34683  
JUL 06, 15  
AMOUNT  
**\$15.96**  
00112052-15

420<sup>ad</sup>  
RE



**ENGINEER'S CERTIFICATE**

STATE OF FLORIDA     )  
                                  )  
COUNTY OF PASCO    )

I, Laurel A. Hall, a Professional Engineer registered in the State of Florida, with Registration No. 38392, hereby certify that the proposed Mu-Grow project construction plans comply with the Geotechnical/Geological Engineering Report recommendations.

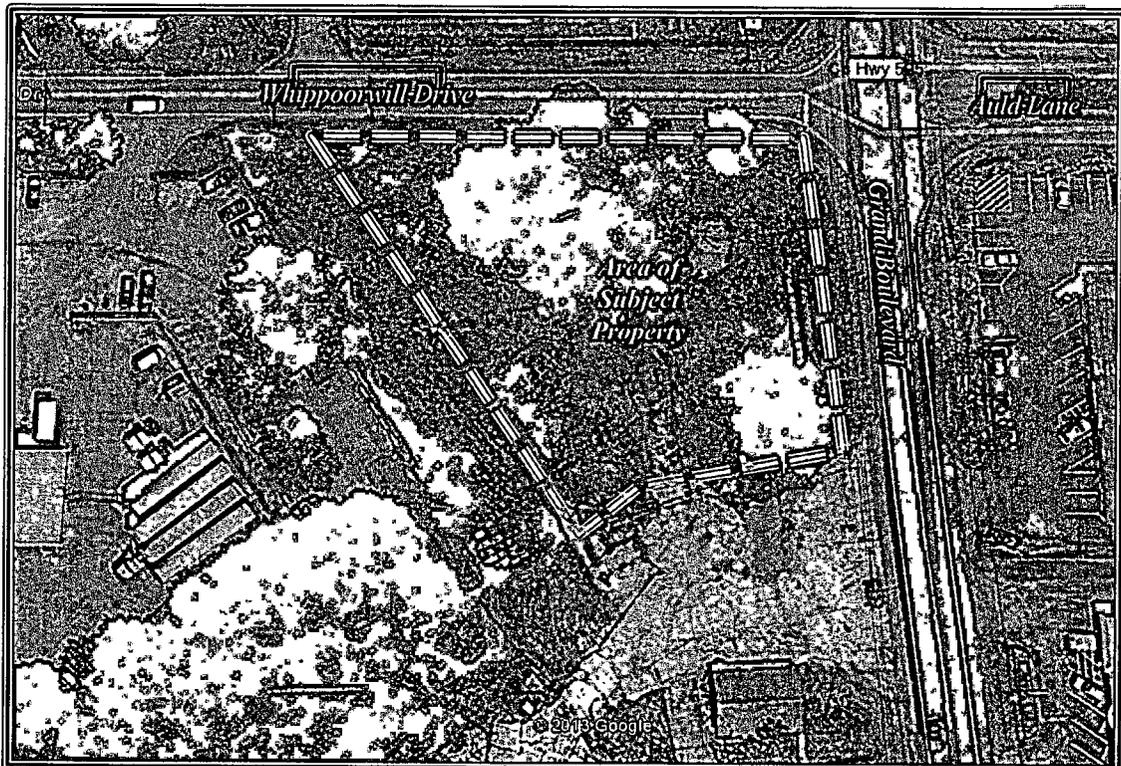
  
Professional Engineer     ★     (SEAL)  
\_\_\_\_\_  
                                  ★     STATE OF FLORIDA  
                                  ★     PROFESSIONAL ENGINEER  
                                  ★     No. 38392  
                                  ★     August 9, 2015

*Phase I Environmental Site Assessment Report*

**Tsambis Commercial Property (0.82 Acres +/-)  
Southwest Corner Grand Boulevard & Whippoorwill Drive  
Holiday Area of Pasco County, Florida**

*July 2013*

*Lees Project No. 131210*



# ***PHASE I ENVIRONMENTAL SITE ASSESSMENT***

**Conducted On:**

**Tsambis Commercial Property (0.82 Acres +/-)  
Southwest Corner of Grand Boulevard and Whipoorwill Drive  
Holiday Zip Code Area of Pasco County, Florida**

**Prepared For:**

**Michael Mougros  
2922 Grand Boulevard  
Holiday, Florida 34690**

**Date Prepared:**

**July 24, 2013**

**Prepared By:**

**Lees Environmental Services, Inc.  
6710 Embassy Boulevard, Suite 102  
Port Richey, Florida 34668  
727/859-9565 Fax 727/842-8532**

***Project No. 131210***

## TABLE OF CONTENTS

*Page 1 of 2*

|  | <u>Page</u> |
|--|-------------|
| <b>1.0 Executive Summary .....</b>                                       | <b>1</b>    |
| <b>2.0 Introduction .....</b>  | <b>4</b>    |
| <b>2.1 Purpose of Assessment</b>   |             |
| <b>2.2 Detailed Scope of Services</b>                                    |             |
| <b>2.3 Significant Assumptions</b>                                       |             |
| <b>2.4 Limitation and Exceptions</b>                                     |             |
| <b>2.5 Special Terms and Conditions</b>                                  |             |
| <b>2.6 User Reliance</b>   |             |
| <b>2.7 Conflict Certification</b>  |             |
| <b>3.0 Site Description.....</b>   | <b>7</b>    |
| <b>3.1 Location and Legal Description</b>                                |             |
| <b>3.2 Site and Vicinity Characteristics</b>                             |             |
| <b>3.3 Current Use of the Property</b>                                   |             |
| <b>3.4 Property Improvements (Structures/Roads/Related Improvements)</b> |             |
| <b>3.5 Current Uses of Adjoining Properties</b>                          |             |
| <b>4.0 User Provided Information .....</b>                               | <b>8</b>    |
| <b>4.1 Title Records</b>   |             |
| <b>4.2 ASTM E 1527-05 User Questionnaire</b>                             |             |
| <b>4.3 Owner/Property Manager/Occupant Information</b>                   |             |
| <b>4.4 Reason for Performing Phase I ESA</b>                             |             |
| <b>4.5 Other</b>   |             |
| <b>5.0 Records Review .....</b>  | <b>10</b>   |
| <b>5.1 Standard Environmental Record Sources</b>                         |             |
| <b>5.2 Additional Environmental Record Sources</b>                       |             |
| <b>5.3 Physical Setting Sources</b>                                      |             |
| <b>5.4 Historical Use Information on Subject Property</b>                |             |
| <b>5.5 Historical Use Information on Adjoining Properties</b>            |             |
| <b>6.0 Site Reconnaissance .....</b>                                     | <b>17</b>   |
| <b>6.1 Methodology and Limiting Conditions</b>                           |             |
| <b>6.2 General Site Setting</b>  |             |
| <b>6.3 Exterior Observations</b>   |             |
| <b>6.4 Interior Observations</b>   |             |
| <b>6.5 Adjoining Properties Issues/Concerns</b>                          |             |

**TABLE OF CONTENTS**

*Page 2 of 2*

|  | <b><u>Page</u></b> |
|--|--------------------|
| <b>7.0 Interviews .....</b>  | <b>20</b>          |
| <b>7.1 Interview with Owner</b>  |                    |
| <b>7.2 Interview with Prior Property Owner</b>   |                    |
| <b>7.3 Interview with Site Manager</b>   |                    |
| <b>7.4 Interview with Occupant(s)</b>  |                    |
| <b>7.5 Interviews with Local Government Officials</b>  |                    |
| <b>7.6 Interviews with Others</b>  |                    |
| <br>   |                    |
| <b>8.0 Review of Phase II ESA Completed On-Site by LEES .....</b>  | <b>21</b>          |
| <br>   |                    |
| <b>9.0 Findings and Opinions.....</b>  | <b>21</b>          |
| <br>   |                    |
| <b>10.0 Conclusion.....</b>  | <b>22</b>          |
| <br>   |                    |
| <b>11.0 Deviations.....</b>  | <b>22</b>          |
| <br>   |                    |
| <b>12.0 Additional Services.....</b>   | <b>22</b>          |
| <br>   |                    |
| <b>13.0 References .....</b>   | <b>23</b>          |
| <br>   |                    |
| <b>14.0 Signature of Environmental Professional and Others .....</b>   | <b>24</b>          |
| <br>   |                    |
| <b>15.0 Qualifications of Environmental Professional and Others.....</b>   | <b>25</b>          |
| <br>   |                    |
| <b>16.0 Figures</b>  |                    |
| <b>Figure 1 - USGS Site Vicinity Map</b>   |                    |
| <b>Figure 2 - 2013 Aerial Photograph Depicting Site Features &amp; Photograph Locations</b>                        |                    |
| <br>   |                    |
| <b>17.0 Appendices</b>   |                    |
| <b>Appendix A - Site Photographs</b>   |                    |
| <b>Appendix B - 1952, 1967, 1976, 1982, 1995, 2002, and 2013 Pasco County Aerial Photographs Annotated by LEES</b> |                    |
| <b>Appendix C - EDM Regulatory Agency Search Report</b>  |                    |
| <b>Appendix D - Florida Department of Health Radon Information</b>   |                    |
| <b>Appendix E - Interview Record of Conversations</b>  |                    |
| <b>Appendix F - General Property Information</b>   |                    |
| <b>Appendix G - ASTM E 1527-05 User Questionnaire</b>  |                    |
| <b>Appendix H - Copy of Phase II ESA Report for Subject Property by LEES</b>                                       |                    |

## 1.0 EXECUTIVE SUMMARY

On May 22, 2013, Mr. Michael Mougros authorized Lees Environmental Services, Inc. (LEES) to conduct a Phase I Environmental Site Assessment (Phase I ESA) on the Tsambis Commercial Property (0.82 Acres +/-) (hereafter referred to as "subject property" or "property") located on the southwest corner of Grand Boulevard and Whippoorwill Drive, within the Holiday zip code area of Pasco County, Florida. This Phase I ESA was performed in general conformance with the scope of work and limitations of the American Society for Testing and Materials (ASTM) Standard of Practice E 1527-05 for performing Phase I Environmental Site Assessments.

This Executive Summary presents a summary of findings for the Phase I ESA and included the following: a review of readily available documents, topographic maps, aerial photographs, city directories, fire insurance maps and regulatory agency lists, an on-site reconnaissance of the property, and an off-site reconnaissance of immediately surrounding properties. The remainder of this report should be reviewed for detailed information and discussion of our findings, evaluations, and conclusions.

### General Property Location and Description of Improvements

The subject property is located on the southwest corner of Grand Boulevard and Whippoorwill Drive within the unincorporated area of Holiday, Pasco County, Florida. Geographically, the subject property is situated within the northeast quarter of the northwest quarter of Section 29, Township 26 South, Range 16 East, Pasco County, Florida.

The subject property is vacant/undeveloped land with perimeter security fencing. No other improvements were observed on-site.

### Historical Review

Based on information obtained and on a review of historical aerial photographs dating back to 1952, the subject property was vacant/undeveloped land prior to being planted with citrus trees from the 1960s until the 1980s. Since that time, the subject property has been covered by natural vegetation and trees with no significant uses, with exception of being used for parking trailers and equipment.

Surrounding properties consisted of citrus grove and undeveloped land until the 1980s, when properties along the east side of Grand Boulevard were developed with commercial buildings, and the property to the south was developed for a concrete plant. The Pepsi Cola distribution center was subsequently developed to the west during the late 1980s and the mini and open storage facility was developed during the 1990s.

### Regulatory Agency Review

According to information obtained from United States Environmental Protection Agency (USEPA) and the Florida Department of Environmental Protection (FDEP) database records, there was a 10,000-gallon diesel fuel underground storage tank (UST) registered to Pinellas Industries during 1984 for the south abutting concrete plant property (which the subject property was a part of until

being divided off in 1999). Since some of the FDEP storage tank registration information was not clear and had conflicting dates, LEES attempted to find out if the UST was in fact removed from the property or placed in an "out of service" status with the tank being left in-place and maybe filled with concrete or other inert materials. No information could be found from the current owner of the former cement plant property as to the status of the tank; and no file information was found at the Pasco County Health Department (which inspected fuel facilities and monitored tank closures during that time period) or the FDEP district office in Tampa, Florida. As such, it remained unclear if the UST was removed or remains either on or near the south boundary of the subject property, which prompted a ground penetrating radar survey along with soil and groundwater quality testing activities along the south boundary of the subject property as part of a Phase II environmental site assessment (Phase II ESA).

Regarding other surrounding properties, the Pepsi Cola Bottling Company operating on the west adjacent property (abutting the CSX railroad ROW property) reported a petroleum product discharge during 1997 that was related to a 10,000-gallon gasoline UST located on the east side of the building. This UST was subsequently removed and according to a contamination assessment report that was prepared for the UST area, soil and groundwater quality testing was conducted during 2001 and no significant petroleum product impacts were found. As such, the Pepsi facility was issued a Site Rehabilitation Completion Order (SRCO) by the FDEP during 2001 meaning that no further assessment of the site was required by the FDEP. Based on the FDEP database information, this adjacent facility is not considered a potential contamination threat.

Concepts in Mico, a cabinet shop located east of the subject property on the east side of Grand Boulevard, had a 550-gallon aboveground storage tank (AST) for storing unleaded gasoline; however, according to FDEP database records, this AST was subsequently removed with no contamination reported. As such, this adjacent facility is not considered a potential contamination threat. Although other facilities with reported petroleum product contamination were reported within the ASTM search area, these facilities are not considered potential contamination threats based on their distances and locations in relation to the subject property.

#### On-Site Reconnaissance

During our on-site reconnaissance, the property was vacant land being utilized for storage of an old truck chassis and truck bed, utility trailer, three (3) portable roofing tar kettles, drums of roofing tar, stockpiled stones, and several used truck tires. Although some dried roofing tar that leaked from a smashed drum was observed on the west abutting CSX Railroad right-of-way (ROW), no evidence of stained soils or chemically stressed vegetation/grasses was observed on the subject property. No evidence of under/aboveground storage tanks (USTs or ASTs) was observed on-site, and no significant evidence of deleterious and/or uncontrolled debris materials was observed on-site. Overall, no evidence of recognized environmental conditions (RECs) was observed on the subject property. No other significant property features were noted on-site.

#### Off-Site Reconnaissance

No visual evidence of RECs was observed on the abutting or adjacent properties during our off-site reconnaissance of the study area.

## Phase II Environmental Site Assessment Activities

Due to the potential historical REC associated with the former 10,000-gallon diesel fuel UST that reportedly was located on the south abutting concrete plant property with no information concerning the removal of the tank or any information concerning whether or not the tank leaked during the time it was in service, LEES recommended and was authorized to conduct Phase II ESA activities on the subject property during the completion of this Phase I ESA report.

The Phase II ESA activities included conducting ground penetrating radar (GPR) activities along the south boundary of the subject property to check for evidence of a UST that according to historical regulatory agency records, was previously utilized by the south abutting concrete plant company. In addition, LEES contracted with a licensed drilling company to conduct soil borings and collect shallow soil samples for screening to check for evidence of petroleum hydrocarbon vapors in shallow soils in selected locations along the southern property boundary. The soil borings were then converted to temporary monitoring wells so that groundwater quality samples could be collected and analyzed by a state-certified testing laboratory to check for evidence of petroleum product impacts in groundwater from the former 10,000-gallon UST that reportedly was utilized by the concrete plant company.

According to the GPR activities conducted along the south property boundary, no evidence of buried tanks (USTs) was reported. In addition, no evidence of petroleum product constituent impacts were found in the shallow soils or groundwater along the south property boundary.

## Data Gaps

Although a historical property ownership search was not provided to LEES for this Phase I ESA, it is LEES' opinion that the lack of this information would not likely change the findings or conclusion to this report.

## Evaluations and Conclusion

Based on the information obtained during this Phase I ESA and supplemental information obtained from the Phase II ESA activities, no evidence of RECs was found for the past or current uses of the subject property. Regarding surrounding abutting and/or adjacent properties, although the issue of the 10,000-gallon diesel fuel UST was a potential historical REC, no evidence of a petroleum product UST or impact was found along the south boundary of the subject property that would indicate a current potential REC. In addition, no other surrounding abutting/adjacent sites were noted as being potential contamination sources.

Lees Environmental Services, Inc. has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 on the Tsambis Commercial Property (0.82 Acres +/-) located on the southwest corner of Grand Boulevard and Whippoorwill Drive, within the Holiday zip code area of Pasco County, Florida. Any exceptions to or deletions from this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of RECs in connection with the subject property. As such, it is our opinion that no additional environmental assessment activities are warranted on the subject property.

## 2.0 INTRODUCTION

### 2.1 Purpose

The primary purpose of this Phase I ESA was to check the subject property for the significant presence of contaminants that are included within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and petroleum products following the ASTM E 1527-05 standard practice for Phase I ESAs. This practice is intended to permit the user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability (landowner liability protections “LLPs”): that is, the practices that constitute “all appropriate inquiry (AAI) into the previous ownership and uses of the property consistent with good commercial or customary practice” as defined in CERCLA’s liability and defense provisions (42 U.S.C. § 9601 (35)(B)). Other reasons for performing a Phase I ESA may include the need to understand potential environmental conditions (historical and present) that could materially impact the existing or future business operations on-site, or affect the value of the property in regard to the sale of the property and/or the mortgage financing of the property.

In defining a standard of good commercial and customary practice for conducting an environmental site assessment on a parcel of land, the goal of the processes established by this practice is to identify recognized environmental conditions. The term “recognized environmental condition” means the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with the laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

### 2.2 Scope of Services

The specific scope of services for this Phase I ESA included the following activities:

Task I: Conducted a review of available literature regarding the past history and current status of the subject property which included a review of readily available historical aerial photographs of the subject site and abutting/adjacent properties, and performed a review of readily available historical property ownership records. ***A chain of title of property ownership records for the past 50 years was not provided for our review by the user of this report.*** Interviews of on-site and off-site owners and/or tenants and other knowledgeable parties were performed as appropriate, concerning existing and past site activities. All of these activities were performed in an attempt to identify suspicious or environmentally damaging areas or activities.

Task II: Performed a visual reconnaissance of the accessible areas of the subject site to identify, if possible, significant existing or abandoned potential on-site concerns and possible

contaminant sources that would be visually evident at the ground surface. Provided a brief site overview of the subject property describing significant features and improvements, as applicable, and provide a brief non-intrusive assessment (no soil or groundwater testing) based on available literature of the environmental setting (including topography and general geology/hydrogeology) of the subject site and immediate surrounding areas.

Task III: Performed a brief pollution source reconnaissance of the accessible areas of the abutting and immediately adjacent sites in an attempt to identify activities or concerns that could have had, or may have, an adverse environmental impact upon the subject property.

Task IV: Specifically checked available USEPA and FDEP lists and reports in accordance with ASTM search criteria; and reviewed other available FDEP and local agency files and records (as applicable) to check for potential on-site or adjacent site pollution sources, if they were reported to or permitted by FDEP.

Task V: Prepared and provided one (1) electronic copy and two (2) written original Phase I ESA reports for the subject property which incorporated all of the information obtained from the tasks outlined above, along with our findings and evaluations, as appropriate.

**The Phase I ESA scope of work performed herein did not include any assessment for radon or vapor intrusion gases, asbestos containing materials, lead-base paint, wetland delineation, endangered species concerns, or lead in drinking water issues.**

### 2.3 Significant Assumptions

No significant assumptions were made during the completion of this report.

### 2.4 Limitation and Exceptions of Assessment

#### 2.4.1 Natural Limitations

It is important to note that all but an exhaustive investigation might fail to locate buried, covered over or localized surficial events of hazardous substances and/or petroleum products on-site that were not reasonably visible or suspected at the ground surface level. Although visual evidence of hazardous substances and/or petroleum products may not be observed at the ground surface level at the time site assessment work is performed, a property could become contaminated from natural phenomena, human intervention, or on-site or adjacent site impacts. These possibilities are beyond our control.

#### 2.4.2 Guarantees

Parties relying on this assessment should understand that our failure to discover obvious hazardous substances and/or petroleum products on-site through appropriate agreed upon and reasonable "Phase I" engineering techniques does not guarantee that such materials do not exist on-site in a localized, covered over, hidden or buried event.

### 2.4.3 Comprehensiveness

The opinions presented in this report are based on findings derived from a site reconnaissance, a review of reasonably ascertainable and/or practically reviewable regulatory records and historical sources, and comments made by interviewees. Although LEES may or may not have found indicators that suggest hazardous substances and/or petroleum products exist at the sites, not finding such indicators does not mean that hazardous substances and/or petroleum products do not exist at the site. It should also be clearly understood that no matter how much research is accomplished during the "Phase I" process, the only way to evaluate the actual composition and condition of the subsurface areas of the property would be to conduct extensive, comprehensive and exhaustive soil and groundwater testing activities on the property.

### 2.4.4 Property Ownership Records

It is important to note that actual past property uses cannot be assured by a review of recorded property ownership information or property deeds.

### 2.4.5 Public Information

Regarding information obtained from public sources, all public agencies, including the USEPA, the FDEP or their appointed county representatives, try to insure that information they provide is accurate. However, errors and omissions do occur by these agencies due to the high volume of information being reviewed and processed. Therefore, LEES cannot guarantee accuracy or completeness of the regulatory information presented in this report.

## 2.5 Special Terms and Conditions

There were no special terms or conditions apart from the Scope of Work and General Conditions agreed to by LEES and the client.

## 2.6 User Reliance

Mr. Michael Mougros is hereby authorized to rely on the findings and conclusion of this report. Therefore, the contents of this Phase I ESA report should not be relied upon by any other parties without the express written consent of Mr. Michael Mougros and Lees Environmental Services, Inc.

## 2.7 Data Gaps

Although historical property ownership and lien search information was not supplied to LEES by the user of this Phase I ESA report, it is LEES' opinion that the lack of this information does not represent a significant data gap and would not, in our opinion, change the findings, evaluations, or conclusion of this Phase I ESA report.

## 2.8 Conflict Certification

Lees Environmental Services, Inc. has no present or contemplated future ownership interest or financial interest in the real estate that is the subject of this Phase I ESA report. In addition, Lees Environmental Services, Inc. has no personal interest with respect to the subject matter of the Phase I ESA report or the parties involved, and has no relationship with the property owners thereof that would prevent an independent analysis of the environmental or other conditions of the property.

## 3.0 SITE DESCRIPTION

### 3.1 Location and Legal Description

The subject property is located on the southwest corner of Grand Boulevard and Whippoorwill Drive within the unincorporated area of Holiday, Pasco County, Florida. Geographically, the subject property is situated within the northeast quarter of the northwest quarter of Section 29, Township 26 South, Range 16 East, Pasco County, Florida. A current USGS 7.5 minute topographic map depicting the approximate location of the subject property area is included as Figure 1; a 2013 Pasco County Aerial Photograph with annotations depicting site photograph locations/directions and significant property features is included as Figure 2. The property's legal description is included in Appendix F, along with general property information obtained from the Pasco County Property Appraiser's office.

### 3.2 Site and Vicinity Characteristics

The subject property is situated within a mixed land use area consisting of light industrial and commercial properties, residential homes, and vacant land. Please refer to a copy of a 2013 Pasco County aerial photograph with annotations made by LEES depicting the subject property and surrounding site features and occupants included in Appendix B.

### 3.3 Current Use(s) of the Property

The subject property is vacant/undeveloped wooded land with no significant uses noted other than storage of roofing materials and equipment. Selected photographs of the subject property are included in Appendix A.

### 3.4 Property Improvements (Structures/Roads/Related Improvements)

The subject property is vacant/undeveloped land with perimeter security fencing. No other improvements were observed on-site. Selected photographs of the subject property are included in Appendix A.

### 3.5 Current Uses of Adjoining Properties

North: The subject property is abutted to the north by Whippoorwill Drive, beyond which is a large storage facility mini-storage units and covered storage structures along with outside storage for vehicles and RVs.

South: The subject property is abutted to the south by a former cement plant that is no longer in business.

East: The subject property is abutted to the east by Grand Boulevard, beyond which are small commercial properties for retail sales and services.

West: The subject property is abutted to the west by a CSX railroad ROW of which the tracks have been removed, beyond which is a Pepsi distribution business.

## 4.0 USER PROVIDED INFORMATION

### 4.1 Title Records

The client or user did not provide a “chain of title” of property ownership records for this assessment. LEES obtained more recent property ownership information from the Pasco County Property Appraiser and Clerk of Circuit Court Offices. Please refer to Section 5.4.1 for more detailed property ownership information.

### 4.2 ASTM E 1527-05 - User Questionnaire

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the “Brownfields Amendments”), the user of the Phase I ESA report (**following ASTM Standard of Practice E 1527-05**) was to provide the following information, as available, to the environmental professional (EP) as part of a “User Questionnaire.” Mr. Michael Mougros, the purchaser of the subject property, completed the user questionnaire as follows:

**(1) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).** *Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law?*

*User Response: No.*

**(2) Activity and land use limitations that are in place on the site or have been filed or recorded in a registry (40 CFR 312.26).** *Are you aware of any activity use limitations [AULs], such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?*

*User Response: No.*

**(3) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).** *As the user of this Phase I ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?*

*User Response: No.*

**(4) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).** *Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?*

*User Response: Good fair deal.*

**(5) Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).** *Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For Example, as user,*

*(a.) Do you know the past uses of the property?*

*(b.) Do you know the specific chemicals that are present or once were present of the property?*

*(c.) Do you know of any spills or other chemical releases that have taken place at the property?*

*(d.) Do you know of any environmental cleanups that have taken place at the property?*

*User Response (Purchaser): (a.) No; (b.) No; (c.) No; (d.) No.*

**(6) The degree of obviousness of the presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).** *As the user of the Phase I ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?*

*User Response (Purchaser): No.*

#### 4.3 Owner/Property Manager/Occupant Information

Please see Appendix E for owner/owner's representative interview information.

#### 4.4 Reason for Performing the Phase I ESA

This Phase I ESA was performed to comply with innocent landowner requirements under the Superfund Amendment and Reauthorization Act using ASTM E 1527-05 Phase I ESA guidelines. Reasons for performing a Phase I ESA may include the need to understand potential environmental conditions (historical and present) that could materially impact the existing or future business operations on-site, or affect the market value of the property in regard to the sale and/or the mortgage financing of the property.

4.5 Other

No additional information was provided to LEES.

**5.0 RECORDS REVIEW**

5.1 Standard Environmental Record Sources

A search was made within specified ASTM search distances to check for properties (including the subject site) that were registered or listed with the USEPA and the FDEP. This regulatory agency search was compiled by Environmental Data Management, Inc. (EDM) located in Largo, Florida. Based on the information obtained, the chart on the following page:

**ENVIRONMENTAL/REGULATORY REVIEW CHART**

| <b>Environmental Regulatory Listing</b>   | <b>ASTM E 1527-05<br/>Search Distances (miles)</b> | <b>Sites Found<br/>Recorded</b> |
|---|--|---------------------------------|
| <b>United States Environmental Protection Agency Databases</b>  |  |                                 |
| National Priorities List (NPL)  | 1.0  | 0                               |
| Comprehensive Environmental Response Compensation and Liability Information System List (CERCLIS)                   | 0.5  | 0                               |
| Archived CERCLIS Sites (NFRAP)  | 0.5  | 0                               |
| Emergency Response Notification System List (ERNS)  | Subject Property Only                              | 0                               |
| Resource, Conservation and Recovery Act (RCRA) Handlers with Corrective Action Report (CORRACTS)                    | 1.0  | 0                               |
| RCRA Treatment, Storage and Disposal Sites (TSD)  | 0.5  | 0                               |
| RCRA Small and Large Quantity Generators; Conditionally Exempt Small Quantity Generators; and Transporters (NONTSD) | Subject Property/Adjoining Properties              | 0                               |
| Tribal Tanks List (TRIBLTANKS)  | 0.25   | 0                               |
| Tribal Lust List (TRIBLLUST)  | 0.50   | 0                               |
| Brownfields Management System (USBRWNFLDS)  | 0.50   | 0                               |
| U.S. Institutional and/or Engineering Controls (USINSTENG)  | Subject Property Only                              | 0                               |
| <b>Florida Department of Environmental Protection Databases</b>   |  |                                 |
| State NPL Equivalent (STNPL)  | 1.0  | 0                               |
| State CERCLIS Equivalent (STCERC)   | 0.5  | 0                               |
| Solid Waste Facilities List (SLDWST)  | 0.5  | 1                               |
| Leaking Underground Storage Tanks List (LUST)   | 0.5  | 4                               |
| Underground/Aboveground Storage Tanks (TANKS)   | Subject Property/Adjoining Properties              | 2                               |
| State Designated Brownfields (BRWNFLDS)   | 0.5  | 0                               |
| State Voluntary Cleanup List (VOLCLNUP)   | 0.5  | 1                               |
| State Institutional and/or Engineering Controls (INSTENG)   | Subject Property Only                              | 0                               |
| State Dry Cleaners List (DRY)   | 0.5  | 0                               |

### 5.1.1 Findings of Recorded/Registered Sites

According to information obtained from USEPA and FDEP database records, there was a 10,000-gallon diesel fuel UST registered to Pinellas Industries during 1984 on the concrete plant property (which the subject property was a part of until being divided off in 1999). The following registrations and other forms were obtained by LEES from the FDEP's on-line database known as OCULUS:

Dec. 17, 1984 - Registration form completed for the 10,000-gallon diesel fuel UST listing Pinellas Industries, Inc. as the tank owner. A hand drawn site plan was attached to the registration that depicted the tank to be located either on or near the south boundary of the subject property.

April 7, 1986 - Registration form completed for the 10,000-gallon diesel fuel UST listing Ewell Industries, Inc. as the tank owner. this subsequent registration form reports the UST to have been removed from the property.

Jan. 11, 1994 - Registration form completed for the 10,000-gallon diesel fuel UST reporting "change of status - out of service."

Aug. 15, 1994 - Registration form completed for the 10,000-gallon diesel fuel UST reporting a revision and showing the tank to be last used or closed as of March 23, 1994.

Mar. 16, 1995 - Registration form completed for the 10,000-gallon diesel fuel UST reporting a revision and showing the tank to be last used or closed as of March 1993 (conflicting dates).

June 14, 2010 - Registration form (plus email documentation) completed for a new 10,000-gallon diesel fuel AST that was planned for installation at the former concrete plant site but was never installed.

June 7, 2013 - Copy of FDEP Storage Tank/Contamination Tracking - Tank Details print-out reporting that the 10,000-gallon diesel fuel UST was installed July 1, 1983 and was listed as being "Removed from site" sometime before August 29, 1995.

Since some of the tank registration information was not clear and had conflicting dates, LEES attempted to find out if the UST was in fact removed from the property or placed in an "out of service" status with the tank being left in-place and maybe filled with concrete or other materials. No information could be found from Cemex, the current owner of the former cement plant property as to the status of the tank; and no file information was found at the Pasco County Health Department (which inspected fuel facilities and monitored tank closures during that time period) or the FDEP district office in Tampa, Florida. As such, it remained unclear if the UST was removed or remains either on or near the south boundary of the subject property (which prompted a ground penetrating radar study along with soil and groundwater quality testing along the south boundary of the subject property - see Section 8.0 and Appendix H). Copies of the various FDEP registration forms and other information are included in Appendix C.

Regarding surrounding properties, the Pepsi Cola Bottling Company operating on the west adjacent property (abutting the CSX railroad ROW property) reported a petroleum product discharge on October 23, 1997. This discharge was related to a 10,000-gallon gasoline UST that was located on the east side of the building, which UST was subsequently removed during December 1998. According to a contamination assessment report that was prepared for the UST area by Universal Solutions, Inc. based in Tampa, Florida, soil and groundwater quality testing was conducted during 2001 and no significant petroleum product impacts were found. As such, the Pepsi facility was issued a Site Rehabilitation Completion Order (SRCO) by the FDEP on October 12, 2001 meaning that no further assessment of the site was required by the FDEP. Based on the FDEP database information, this adjacent facility is not considered a potential contamination threat.

Concepts in Mico, a cabinet shop located east of the subject property on the east side of Grand Boulevard, had a 550-gallon AST for storing unleaded gasoline; however, according to FDEP database records, this AST was subsequently removed with no contamination reported. As such, this adjacent facility is not a considered a potential contamination threat.

Although other facilities with reported petroleum product contamination were reported within the ASTM search area, these facilities are not considered potential contamination threats based on their distances and locations in relation to the subject property.

## 5.2 Additional Environmental Record Sources

### 5.2.1 Southwest Florida Water Management District

After researching Southwest Florida Water Management District's (SWFWMD) Geographic Information System (GIS) database, LEES found no Well Permits, Water Use Permits (WUPs), or Environmental Resource Permits (ERPs) issued for the subject property by SWFWMD's regulatory department. Typically, ERPs are permitted to address dredging, filling, and construction in wetlands and other surface water, as well as stormwater and surface water management systems in uplands. The ERP program is designed to ensure that activities in uplands, wetlands, and other surface waters do not degrade water quality or degrade habitat for aquatic or wetland dependant wildlife.

### 5.2.2 Local Fire Department/Hazardous Materials Section

LEES faxed a request letter to the Pasco County Office of Emergency Management regarding any recorded spill/fire/HazMat incident responses for the subject property. According to their database records, no spill/fire/HazMat incident responses were recorded for the subject property. No other information was obtained. Please refer to Section 7.5 for more detailed interview documentation.

### 5.2.3 Local Building/Planning/Zoning Departments

No contacts were made.

5.2.4 Departments of Health/Environmental Services - Radon

According to the Florida Department of Health on-line radon potential level database for zip code 34690, indoor radon gas levels have been reported as the following:

| <i>Data for Zip Code 34690</i>            |                              |  |
|---|------------------------------|--|
| Data Source                               | Number of Buildings Measured | Percentage That Are Greater Than Four (4) pCi/l (>= 4 pCi/l) |
| <b>Certified Residential Database</b>     | 3                            | N/A0%  |
| <b>Mandatory Residential Database</b>     | 44                           | N/A0%  |
| <b>Mandatory Non-Residential Database</b> | N/A                          | N/A%   |

Four (4) picocuries per liter (4 pCi/L) is the maximum standard set by the USEPA for radon exposure inside a building (see Appendix C). It is important to point out that this Department of Health survey is not scientific or statistical and only provides an indication of radon potential. Actual testing for radon would need to be conducted to establish radon inside a building or structure.

5.3 Physical Setting Sources

5.3.1 Topographic Map Review

The USGS Quadrangle Map, “Elfers, Florida,” created in 1954 (revised in 1988) depicts the subject property to be located within an undeveloped area on the southwest corner of Whippoorwill Drive and Grand Boulevard within in the Holiday zip code area of Pasco County. The subject property has a reported ground elevation that averages 15 feet (+/-) above mean sea level (National Geodetic Vertical Datum of 1929), which grades off-site to lower elevations toward the southwest. Please refer to Figure 1 included in the Attachments.

5.3.2 Soils On-Site

According to the USDA Soil Conservation Survey for Pasco County (June 1982), the subject property is comprised of the following soil types:

- *Tavares sand, 0 to 5 percent slopes (map unit #6):* This nearly level to gently sloping, moderately well drained soil is found on low ridges and knolls throughout the county. Areas are irregular in shape. The soil is sand to a depth of 80-inches or more. Typically, the surface layer is very dark gray sand about 3-inches thick. Below this, layers of yellowish brown and light yellowish brown sand extend to a depth of 56-inches. Below this is a layer of very pale brown sand 20-inches thick, and below this, white sand extends to a depth of 80-inches or more. Included with this soil in mapping are small areas of Adamsville, Astatula, and Candler soils. Also included are small areas of Millhopper and Sparr soils and, along rivers, a few areas of soils that occasionally are flooded. The included soils make up about 10 percent of the map unit. In most years, under natural conditions, the water table is at a depth of 40 to 60-inches for 6 to 12 months and below 60-inches during very dry periods. The available water capacity is

very low. Permeability is very rapid. Natural fertility is low. The natural vegetation is slash pine, longleaf pine, blackjack oak, turkey oak, and post oak and an understory of pineland threeawn, creeping bluestem, lopsided indiangrass, hairy panicum, low panicum, purple lovegrass, and broomsedge bluestem.

- *Astatula fine sand, 0 to 5 percent slopes (map unit #12)*: This nearly level to gently sloping, excessively drained soil is found mainly in the sandhills. Areas are irregular in shape. Slopes are smooth to concave. Typically, the surface layer is dark grayish brown fine sand about 6-inches thick. Below this, to a depth of 29-inches, is a layer of brown fine sand; and below this, very pale brown fine sand extends to a depth of 80-inches or more. Included with this soil in mapping are small areas of Candler, Paola, and Tavares soils. The included soils make up about 10 percent of the map unit. The water table is below a depth of 72-inches. Both the available water capacity and the natural fertility of the soil are very low. Permeability is very rapid throughout the soil. Few areas of this soil have been cleared. The native vegetation is sand pine, longleaf pine, scrub live oak, bluejack oak, turkey oak, and an understory of rosemary, pineland threeawn, bluestem, paspalum, sawpalmetto, and cacti.
- *Urban land (map unit #38)*: In this miscellaneous area, the original soil has been modified through cutting, grading, filling, and shaping for urban development. Major soil properties that originally limited urban uses have been overcome in an acceptable manner. Urban facilities such as paved parking areas, streets, industrial buildings, houses, shopping centers, and underground utilities have been constructed on 75 percent or more of the mapped area. In the places not covered by urban facilities, the soils generally have been so altered that identification is not feasible. Urban land is primarily found in downtown areas, shopping districts, industrial parks, and along main thoroughfares of cities and towns. It is also found in isolated shopping centers and small business areas at intersections of primary roads. In places, there are small, less intensively developed areas and small areas of identifiable soils. This miscellaneous area has not been assigned to a capability subclass or a range site.

### 5.3.3 Regional Geology and Hydrogeology

In Pasco County, Pliocene to recent age sands of a variable thickness overlie Cretaceous and Tertiary carbonates and clays, believed to have been deposited during higher stands of sea level. Underlying these sands are clayey sands and clays which geologically appear to be remnants of the Hawthorn and Tampa formations of upper and lower Miocene age. The Hawthorn and Tampa formations, when present, have variable thicknesses and composition. They are generally absent along the gulf coastal areas of Pasco County; however, these formations can reach 50-60 feet in the central and northeast portion of Pasco County. The Tampa formation may consist of quartz sand limestone, and/or a soft to hard micrite, and is sometimes devoid of sand with occasional olive to blue clay on top of the limestone surface. This clay, possibly a weathering residuum, is indistinguishable from the overlying Hawthorn clays. Collectively, these clays comprise the continuing unit, which overlies the Floridan Aquifer System.

According to a March 1988 "Groundwater Resource Availability Inventory Report" published by the Southwest Florida Water Management District for Pasco County, Florida, the Upper Floridan aquifer is the principal source of water for domestic, agricultural, and industrial use. In much of

Pasco County, a shallow surficial aquifer occurs in the sand overlying the Upper Florida aquifer and is used primarily for lawn irrigation. In general, the confining units that separate the surficial aquifer from the Upper Floridan aquifer are thin or discontinuous in some parts of Pasco County. In areas where saturated sand lies directly above limestone, water in the sand is hydraulically connected to the Upper Florida Aquifer system. In some areas of Pasco County, limestone of the Upper Floridan aquifer is separated from the surficial sand by clay of very low permeability. Although soils generally range from 25 to 50 feet thick overlying the Upper Floridan aquifer in areas of Pasco County, the subject site is located in close proximity to Gulf of Mexico, where soils typically begin to thin-out over limestone.

#### 5.4 Historical Use Information on the Subject Property

##### 5.4.1 Recorded Land Title Records

Historical property ownership records for the past 50 years were not provided for this Phase I ESA by the client. However, property ownership transfer deeds were found available on the Pasco County Property Appraiser’s online database as follows:

- Tarpon-Holiday Development Corporation to Industrial Concrete Industries, Inc. on July 31, 1981.
- A Certificate of Title was issued to Continental Cement Company, Inc. by Pasco County Clerk of Court on May 28, 1987.
- Continental Cement Company, Inc. to the current owner of record, K.C. Tsambis and Anna D. Tsambis, as husband and wife, on March 31, 1999.

Please refer to Appendix F for copies of the above transfer instruments.

##### 5.4.2 Aerial Photograph Review

In an attempt to check past uses of the subject and immediately adjacent properties, available historical aerial photographs (digitized into MrSID format) for the study area were downloaded from the Florida Department of Transportation (FDOT) via electronic file transfer and Google Earth. Aerial photographs for the years 1952, 1967, 1976, 1982, 1995, 2002, and 2013 were reviewed, annotated, and copied by LEES for inclusion in Appendix B. The following chart provides general information concerning the status of the subject site and surrounding lands during previous years:

**AERIAL PHOTOGRAPH REVIEW CHART**

| Year | Scale           | Subject Site   | Abutting/Adjacent Sites  |
|------|-----------------|--|--|
| 1952 | (Scale-Unknown) | The subject property consists of vacant/undeveloped land (see Appendix B). | <p><b>North:</b> Whipoorwill Drive is a dirt trail, beyond which is a citrus grove.</p> <p><b>South:</b> Vacant/undeveloped land.</p> <p><b>East:</b> Grand Boulevard, beyond which are citrus groves.</p> <p><b>West:</b> CSX railroad ROW, beyond which is vacant/undeveloped land (see Appendix B).</p> |

|      |                 |   |   |
|------|-----------------|---|---|
| 1967 | (Scale-Unknown) | The subject property is planted with citrus trees (see Appendix B).   | <b>North:</b> Whipoorwill Drive is a dirt trail, beyond which is a citrus grove.<br><b>South:</b> Citrus grove.<br><b>East:</b> Grand Boulevard, beyond which are citrus groves.<br><b>West:</b> CSX railroad ROW, beyond which are citrus trees and an excavated pond (see Appendix B).  |
| 1976 | (Scale-Unknown) | The subject property remains planted with citrus trees (see Appendix B).                                      | <b>North:</b> Whipoorwill Drive is improved and may be paved, beyond which is a citrus grove.<br><b>South:</b> The concrete plant is now developed basically as it presently appears.<br><b>East:</b> Grand Boulevard, beyond which land has been cleared for development.<br><b>West:</b> CSX railroad ROW, beyond which are citrus trees and an excavated pond (see Appendix B).  |
| 1982 | (Scale-Unknown) | The subject property appears to remain planted with citrus trees (see Appendix B).                            | <b>North:</b> Whipoorwill Drive is paved, beyond which is the former citrus property (abandoned citrus grove).<br><b>South:</b> The concrete plant is now developed basically as it presently appears.<br><b>East:</b> Grand Boulevard, beyond which land has been developed with the existing building.<br><b>West:</b> CSX railroad ROW, beyond which are citrus trees and an excavated pond (see Appendix B).          |
| 1995 | (Scale-Unknown) | No citrus trees appear to exist on-site; natural vegetation and trees noted on the property (see Appendix B). | <b>North:</b> Whipoorwill Drive is paved, beyond which is vacant land covered by natural vegetative growth.<br><b>South:</b> The concrete plant basically as it is now developed.<br><b>East:</b> Grand Boulevard, beyond which is the presently existing commercial building.<br><b>West:</b> CSX railroad ROW, beyond which is the presently existing Pepsi Cola Bottling Plant/Distribution property (see Appendix B). |
| 2002 | (Scale-Unknown) | Subject property basically as it now appears (see Appendix B).  | <b>North:</b> Whipoorwill Drive, beyond which is the mini and outside storage facility.<br><b>South:</b> The concrete plant basically as it is now developed.<br><b>East:</b> Grand Boulevard, beyond which is the presently existing commercial building<br><b>West:</b> CSX railroad ROW, beyond which is the presently existing Pepsi Cola Bottling Plant/Distribution property (see Appendix B).                      |
| 2013 | (Scale-Unknown) | Subject property as it presently exists (see Appendix B).   | Surrounding properties as they presently exist (see Appendix B).  |

#### Aerial Photograph Review Summary:

No information was obtained during the review of aerial photographs that indicated evidence of RECs on the subject property; however, the location of a former 10,000-gallon diesel fuel UST associated with the former concrete plant could not be determined on the historical aerial photographs.

#### 5.4.3 City Directory Search for Subject Property

No city directory listings were found produced for the subject property.

#### 5.4.4 Sanborn Fire Insurance Maps for Subject Property

No fire insurance maps were found for the study area.

#### 5.4.5 Previous Reports for Subject Property

No previous reports for the subject property were found available or were provided to LEES.

### 5.5 Historical Use Information on Adjoining Properties

#### 5.5.1 Aerial Photograph Review

Please refer to the chart in Section 5.4.2 concerning the development time periods of the immediately surrounding properties and aerial photograph review summary.

#### 5.5.2 City Directory Search for Adjoining Properties

No city directory listings were reviewed for the surrounding properties.

#### 5.5.3 Sanborn Fire Insurance Maps for Adjoining Properties

No fire insurance maps were found for the study area.

#### 5.5.4 Previous Reports for Adjoining Properties

No reports or information pertaining to the surrounding properties were known or made available during this Phase I ESA.

## 6.0 SITE RECONNAISSANCE

### 6.1 Methodology Used and Limiting Conditions

On June 4, 2013, LEES personnel conducted on-site and off-site reconnaissance activities for this Phase I ESA. Perimeter and interior areas of the subject property were observed on foot using a system of overlapping field of view across the property (see photographs included in Appendix A).

### 6.2 General Site Setting

The subject property is situated within a mixed land use area consisting of light industrial and commercial properties, residential homes, and vacant land. Please refer to a copy of a 2013 Pasco County aerial photograph with annotations made by LEES depicting the subject property and surrounding site features and property occupants included in Appendix B.

### 6.3 Exterior Observations

#### 6.3.1 Aboveground-Underground Storage Tanks/Drums/Containers

No evidence of large capacity tanks was observed on-site. Seven (7) 55-gallon steel drums were noted on the property that contained what appears to be dried roofing tar material (see Photo #13 in Appendix A). One (1) of the drums with an open top was lying on its side and some of the dried tar material leaked onto the ground surface (see Photo #16 in Appendix A) that appears to be located within the CSX railroad ROW property. Two (2) 5-gallon containers containing what appeared to be dried tar material were observed near the south property boundary. Please refer to Figure 2 for photograph locations.

#### 6.3.2 Evidence of Waste Disposal

No significant evidence of uncontrolled waste disposal was noted on-site during our recent site visit; however, several used truck tires were observed stockpiled on two (2) areas of the property with a third area that appeared to be within the CSX railroad ROW.

#### 6.3.3 Surface Fill/Landfills

No evidence of surface fill/landfills was noted on the subject property.

#### 6.3.4 Surface Staining and Stressed Vegetation

Other than some small areas of dried tar materials, no significant evidence of surface stained soil or chemically stressed vegetation was observed on-site.

#### 6.3.5 Transformers/Electrical Equipment/Tower-Mounted Electrical Transmission Lines

No significant electrical transformers were observed on-site.

#### 6.3.6 Air Stacks, Vents, and Odors

No air stacks or exhaust vents were observed and no unusual odors were detected on the property.

#### 6.3.7 Surface Water Drainage

The subject property is vacant/undeveloped land with no engineered stormwater control systems observed on-site.

#### 6.3.8 Conduits to Groundwater

No water supply wells or other conduits were observed on the property.

### 6.3.9 Treatment Facilities

No wastewater disposal or treatment systems were observed on the subject property.

### 6.3.10 Septic Tank/Drainfield Systems/Municipal Utilities

No septic tank/drainfield systems were reported on-site. Furthermore, no municipal water or sanitary sewer utilities were observed on-site.

### 6.3.11 Wells

See Section 6.3.8.

## 6.4 Interior Observations

### 6.4.1 Hazardous Substance/Petroleum Product Usage

No structures or buildings exist on-site.

### 6.4.2 Hazardous Substance/Petroleum Product/Unidentified Substance/ Containers

Same as Section 6.4.1.

### 6.4.3 Building Heating & Cooling Systems

Same as Section 6.4.1.

### 6.4.4 Stains or Corrosion

Same as Section 6.4.1.

### 6.4.5 Drains and/or Sumps

Same as Section 6.4.1.

## 6.5 Adjoining Properties Issues/Concerns

During our site reconnaissance, no visual evidence of RECs was observed on the abutting or adjacent properties during our off-site area reconnaissance, with exception of the unknown status of the 10,000-gallon diesel fuel UST that was registered on the south abutting cement plant property.

## 7.0 INTERVIEWS

### 7.1 Interview with Owner/Owner's Representative

LEES contacted Mr. Gus Tsambis, the reported owner of the subject property regarding any known environmental issues on the property. Mr. Tsambis stated that the property has always remained vacant land and he has used the property for storage of roofing materials, equipment and vehicles. Mr. Tsambis stated that he knows of no recognized environmental conditions or concerns relating to the subject or immediately surrounding properties. No other information was obtained.

### 7.2 Interview with Prior Property Owners

On June 11, 2013, LEES interviewed Mr. Jason Jones, the environmental manager for Cemex-West Florida, the former owner of the subject property and current owner of the south abutting concrete plant property. Mr. Jones reviewed facility files back to the early 1990s but could find no information concerning the 10,000-gallon UST that was located on the northern portion of the property. No other information was provided by Mr. Jones.

### 7.3 Interview with Site Manager

Same as Section 7.1.

### 7.4 Interview with Occupant(s)

No interviews were conducted, as the property is vacant/undeveloped land with no occupants.

### 7.5 Interview with Local Government Officials

*Florida Department of Environmental Protection:* On June 11, 2013 LEES contacted the Southwest District Office of the FDEP located in Tampa, Florida to inquire if there were any facility files concerning the 10,000-gallon diesel fuel UST that was once located on the south abutting concrete plant property (or on the subject property). No files were reportedly found, but LEES was provided with a computer database print-out that indicates that the 10,000-gallon UST was removed from the property (however, no supporting documentation could be found to prove this database entry).

### 7.6 Interview with Others

No other interviews were conducted.

Please refer to Appendix E for recorded interview information provided by the above named entities.

## 8.0 REVIEW OF PHASE II ESA COMPLETED ON-SITE BY LEES

Due to the potential historical REC associated with the former 10,000-gallon diesel fuel UST that reportedly was located on the south abutting concrete plant property with no information concerning the removal of the tank or any information concerning whether or not the tank leaked during the time it was in service, LEES recommended and was authorized by the client to conduct Phase II ESA activities on the subject property during the completion of this Phase I ESA report.

The Phase II ESA activities included conducting ground penetrating radar (GPR) activities along the south boundary of the subject property to check for evidence of a UST that according to historical regulatory agency records, was previously utilized by the south abutting concrete plant company.

In addition, LEES contracted with a licensed drilling company to conduct soil borings and collect shallow soil samples for screening with a calibrated organic vapor analyzer equipped with a flame ionization detector (OVA/FID) to check for evidence of petroleum hydrocarbon vapors in shallow soils in selected locations along the southern property boundary. The soil borings were converted to temporary monitoring wells so that groundwater quality samples could be collected and analyzed by a state-certified testing laboratory to check for evidence of petroleum product impacts in groundwater from the former 10,000-gallon UST utilized by the concrete plant company.

According to the GPR activities conducted along the south property boundary, no evidence of buried tanks (USTs) was reported. In addition, no evidence of petroleum product constituent impacts were found in the shallow soils or groundwater along the south property boundary.

In summary, based on the Phase II ESA activities conducted, it is LEES opinion that no additional soil or groundwater quality testing is warranted on the subject property concerning potential adverse environmental impacts on the subject property from the former diesel fuel UST that was located on the south abutting concrete plant property during previous years.

## 9.0 FINDINGS & OPINION

Based on the information obtained during this Phase I ESA and supplemental information obtained from the Phase II ESA activities, no evidence of RECs was found for the past or current uses of the subject property.

Regarding surrounding abutting and/or adjacent properties, although the issue of the 10,000-gallon diesel fuel UST was a potential historical REC, no evidence of a petroleum product UST or impact was found along the south boundary of the subject property that would indicate a current potential REC. In addition, no other surrounding abutting/adjacent sites were noted as being potential contamination sources.

## **10.0 CONCLUSION**

Lees Environmental Services, Inc. has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-05 on the Tsambis Commercial Property (0.82 Acres +/-) located on the southwest corner of Grand Boulevard and Whippoorwill Drive, within the Holiday zip code area of Pasco County, Florida. Any exceptions to or deletions from this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of RECs in connection with the subject property. As such, it is our opinion that no additional environmental assessment activities are warranted on the subject property.

## **11.0 DEVIATIONS**

There was no deviation from the scope of work that was proposed and accepted for this Phase I ESA.

## **12.0 ADDITIONAL SERVICES**

No additional services outside of the accepted scope of work were performed. However, LEES conducted Phase II ESA activities on the subject property in order for the environmental status of the property to be stated and concluded.

## 13.0 REFERENCES

The following reference documents were utilized in the performance of this Phase I Environmental Site Assessment:

*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*

American Society for Testing and Materials Designation E 1527-05

*Standard Operating Procedures Plan for Phase I Environmental Site Assessments*

Florida Environmental Assessors Association

*Handbook of Environmental Contaminates: A Guide for Site Assessment*

Lewis Publishers

*Statewide Radon Potential Survey*

Florida HRS

FEMA Flood Insurance Maps

County Development Agencies/Public Library

*Polk City Directories*

Public Library

*Groundwater Resource Availability Inventory: Pasco County, Florida*

Southwest Florida Water Management District

*A Geological Overview of Florida*

Florida Geologic Survey

*Geology of Pasco County*

Florida Geologic Survey

*Soil Survey of Pasco County Florida*

USDA-Soil Conservation Service

**14.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONAL AND OTHERS**

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental professional* as defined in §312.10 of 40 Code of Federal Regulations (CFR) 312, and I have the specific qualifications based on education, training, and experience to assess a property of the nature history, and setting of the subject *property*. We have developed and performed all of the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Edward E. Lees, LEP  
President  
Licensed Environmental Professional # 49



---

Christopher A. Lees  
Project Manager



---

# Ozona

## Engineering, Inc.

P.O. Box 432

Ozona, Florida 34660-432

Phone: 727-785-3939

Fax: 727-785-3434

August 25, 2015

West Pasco Government Center  
Planning and Development Review  
8731 Citizens Drive, Suite 230  
New Port Richey, FL 34654

Attn: Beverly Trudell  
Re: Mu-Grow, SML 15-035

Enclosed please find one (1) set of revised plans and a CD for the above project along with the following response to comments accompanying your letter dated June 17, 2015. The requested color aerial overlay is on the CD.

### Engineering/Stormwater - Aurybel Rivero

1. Cloud changes  
*All changes have been clouded*
2. NPDES  
*See attached application*
3. SWFWMD approval  
*Will be provided*
4. Pre-Inspection Meeting with PC Stormwater Management  
*Acknowledged*
5. Proof of ownership  
*See attached*
6. Sight triangles  
*See revised Sheet CL1.1*
7. Sight triangles  
*See revised Sheet CL1.1*
8. Geotechnical  
*See attached. See Cover Sheet.*
9. Geotechnical  
*See attached certification*
10. Right-of-Way dedication  
*Required 16' right-of-way is acknowledged and indicated on the plans.*
11. Minimum access width  
*See revised Sheet C3.1.*
12. Item 11  
*Not applicable*
13. Driveway radii  
*See Sheet C3.1.*
14. Structural Numbers  
*See Sheet RW.1*
15. Storm sewer  
*See revised Sheet C4.1 and RW.1*

16. Percolation rate  
*See revised Stormwater Report*
17. Erosion Control  
*See Sheet C4.1*
18. Sections and Seed vs Sod on Sheet B3.1  
*A slope of 6:1 is more conservative and should not be objectionable.*
19. Structure 4 top elevation  
*See revised Sheet C4.1*
20. Storm Tabulaion  
*See revised Stormwater Report*
21. Pipe length  
*Pipe length has been corrected on Sheet C4.1*
22. Silt fence Type IV  
*Sheet B3.1 is a standard detail sheet. Some details may not be needed.*
23. Phase I Environmental Report  
*Copy of report is attached*
24. Dumpster  
*No dumpster required*

### **Planning - Beverly Trudell**

- 1-9 Informational  
*Acknowledged*
10. Landscaping Notes  
*Notes added. See Sheet CL1.1*
11. Preliminary Site / Construction Plans  
*Cover Sheet has been changed.*
12. Existing structures  
*See note on Sheet C2.1*
13. Irrigation Method  
*See note on Landscape Plan*
14. Square Footage  
*The square footage shown is for outside building dimensions*
15. Neighbor Notice  
*Notice has been published in the Tampa Bay Times. See attached documentation.*
16. Phasing  
*Per our comment meeting, phasing will be permitted.*
17. Future Land Use  
*The future land use (FLU) of abutting properties has been added to the plans.*
18. Historic Resources Note  
*Note has been added to Sheet C2.1*
19. CSX Railroad Strip  
*Applicant will provide documentation that he is the owner of the 10'-wide Parcel D.*
20. Temporary Storage Units  
*Acknowledged. None proposed*
21. Tree Chart  
*Chart is provided on Sheet CTP.1*
22. Landscaping Maintenance  
*Maintenance entity is designated on Sheet CL1.1*
23. Drought Tolerant Plant Materials  
*See Tree Schedule on Sheet CL1.1*

24. Native Plant Materials  
*See Tree Schedule on Sheet CL1.1*
25. North Buffer  
*Buffer has been reduced to Type A*
26. Loading Areas  
*Plan is acceptable per our comment meeting*
27. Wheel stop detail  
*Wheel stop used for handicap stall only*
28. Handicap Detail  
*See Sheet C6.2*
29. Bicycle Space  
*See Sheet C3.1*
30. Loading Zone  
*Loading zone provided. See Sheet C3.1*
31. Building area is consistent with allowable FAR  
*Acknowledged*
32. FAR Calculation  
*Calculation is shown on Cover Sheet*

**Traffic - David P. Skelunas, P.E.**

- 1-3 *Acknowledged. Plans are consistent with these requirements.*
4. Relocate arrow.  
*See Sheet C3.2*
5. Delete arrow  
*Right in arrow has been deleted. See Sheet C3.2*
6. Sign sizes.  
*See Sheet C3.2*

**Environmental Lands - Katie Mac Millen**

Gopher Tortoises

*We acknowledged that there are gopher tortoises on subject property. See copy of survey attached. The procedure you outlined will be followed.*

We trust this adequately addresses all the comments. Please feel free to contact me should there be any additional questions.

Sincerely,

Gary A. Boucher, P.E.

***PHASE II ENVIRONMENTAL SITE ASSESSMENT***

**Conducted On:**

**Tsambis Commercial Property (0.82 Acres +/-)  
Southwest Corner Grand Boulevard and Whippoorwill Drive  
Holiday Area of Pasco County, Florida**

**Prepared For:**

**Michael Mougros  
2922 Grand Boulevard  
Holiday, Florida 34690**

**Date Prepared:**

**July 23, 2013**

**Prepared By:**

**Lees Environmental Services, Inc.  
6710 Embassy Boulevard, Suite 102  
Port Richey, Florida 34668  
727/859-9565 Fax 727/842-8532**

**Project No. 131210.2**

**Christopher A. Lees**  
\_\_\_\_\_  
**Project Manager**

**Edward E. Lees, LEP**  
\_\_\_\_\_  
**President**



\_\_\_\_\_  
**Signature**



\_\_\_\_\_  
**Signature**

***Phase II Environmental Site Assessment***  
**Tsambis Commercial Property (0.82 Acres +/-)**

**TABLE OF CONTENTS**

|  | <i>Page</i> |
|--|-------------|
| <b>1.0 INTRODUCTION/BRIEF SITE DESCRIPTION .....</b>   | <b>1</b>    |
| <b>2.0 OBJECTIVES/LIMITATIONS .....</b>  | <b>1</b>    |
| <b>3.0 SCOPE OF SERVICES.....</b>  | <b>2</b>    |
| <b>4.0 FIELD WORK ACTIVITIES .....</b>   | <b>3</b>    |
| <b>4.1 Ground Penetrating Radar Conducted along South Property Boundary .....</b>  | <b>3</b>    |
| <b>4.2 Soil Borings and Installation of Temporary Groundwater Monitoring Wells<br/>Along South Property Boundary .....</b> | <b>3</b>    |
| <b>4.3 Groundwater Quality Sampling and Laboratory Testing Results .....</b>   | <b>5</b>    |
| <b>5.0 SUMMARY OF FINDINGS AND CONCLUSION .....</b>  | <b>5</b>    |

**FIGURES**

**Figure 1A - USGS Site Vicinity Map**

**Figure 2A - Phase II Testing Areas (2013 Pasco County Aerial Photograph - Google Earth)**

**TABLE**

**Table 1 - Soil Sampling and OVA/FID Soil Screening Results**

**Table 2 - Groundwater Laboratory Analytical Summary**

**APPENDIX**

**Appendix A - Laboratory Analytical Testing Report (Prepared by SunLabs, Inc.)**

**Appendix B - Copy of Geologic & Environmental Testing GPR Report**

**Appendix C - Site Photographs**

***Phase II Environmental Site Assessment***  
**Tsambis Commercial Property (0.82 Acres +/-)**

**1.0 INTRODUCTION/BRIEF SITE DESCRIPTION**

On June 18, 2013, Mr. Michael Mougros authorized Lees Environmental Services, Inc. (LEES) to conduct Phase II Environmental Site Assessment (Phase II ESA) activities in selected locations on the Tsambis Commercial Property consisting of approximately 0.82 acres of land located on the southwest corner of Grand Boulevard and Whippoorwill Drive in the Holiday area of Pasco County, Florida. Please refer to the United States Geologic Survey (USGS) quadrangle map included as Figure 1A for the approximate location of the subject property.

**2.0 OBJECTIVES/LIMITATIONS**

Historically, the subject property was part of a larger tract of land to the south where a concrete plant operated for several years (now closed). The concrete plant utilized a 10,000-gallon underground storage tank (UST) for storing diesel fuel that was registered with the Florida Department of Environmental Protection (FDEP). According to very limited available information obtained from FDEP records, the UST was located on or south of the subject property's south property boundary. Since there is conflicting information as to whether or not the UST was removed from the property, there was a concern that the tank could exist on or near the south boundary of the subject property, and the tank could or may have leaked diesel fuel into the environment when it was in operation.

Based on the potential recognized environmental conditions (RECs) cited above, Phase II ESA activities were conducted within selected areas of the subject property to check for evidence of the 10,000-gallon diesel fuel UST that could be on or near the south boundary of the subject property; and check shallow soil and groundwater for evidence of shallow soil and groundwater petroleum impacts.

It is important to note that Phase II ESAs do not generally require an exhaustive assessment of environmental conditions on a property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the benefit of the information and, in the context of private transactions and contractual responsibilities, may become a material detriment to the orderly conduct of business. It is also important to note that there is no guarantee that contamination does not exist in localized, covered over, buried or hidden events on the property. In this particular instance, the Phase II ESA work that was conducted by LEES was considered to be sufficient in scope with regard to addressing the potential RECs as discussed in this Phase II ESA report.

### **3.0 SCOPE OF SERVICES**

Based on the previously described potential RECs, the following scope of work was conducted on the subject property by LEES:

Task 1: LEES contracted with Geologic & Environmental Testing (GET), a licensed geology company, to conduct ground penetrating radar (GPR) on a grid pattern along the south boundary of the subject property to check for evidence of a buried UST previously utilized by the south abutting concrete plant company.

Task 2: LEES also contracted with GET to conduct soil borings, collect shallow soil samples for screening with a calibrated organic vapor analyzer equipped with a flame ionization detector (OVA/FID) to check for evidence of petroleum hydrocarbon vapors in shallow soils; install three (3), 1-inch diameter temporary groundwater monitoring wells in selected locations along the southern property boundary of the subject property; and arrange for a state-certified testing laboratory to analyze shallow groundwater samples to check for evidence of petroleum product impacts in groundwater from the former 10,000-gallon UST utilized by the concrete plant company.

Task 3: Prepared a Phase II ESA report discussing our findings and evaluations of the above RECs and environmental issues, which was incorporated as an attachment to a Phase I ESA report being conducted on the subject property by LEES.

All of the testing activities were conducted by LEES in general accordance with the FDEP's Quality Assurance rule. All of the groundwater analytical testing was performed by SunLabs, Inc. (SunLabs), a state-certified analytical laboratory.

#### **4.0 FIELD WORK ACTIVITIES**

##### **4.1 Ground Penetrating Radar Conducted along South Property Boundary**

On June 20, 2013, LEES personnel mobilized to the subject property for the purpose of instructing GET personnel where the GPR activities were to be conducted on the subject property. Professional land surveying stakes were present that reportedly established the south boundary of the subject property, which were followed for setting up the grid pattern for the GPR transects. The GPR transects were conducted exclusively along the south property boundary as depicted on the Geophysical Survey Map included in the copy of GET's Geophysical Investigation report included in Appendix B.

According to GET's report, no evidence of underground anomalies that might indicate the presence of a buried fuel storage tank was detected. Please refer to GET's Geophysical Investigation report included in Appendix B for detailed information.

##### **4.2 Soil Borings and Installation of Temporary Groundwater Monitoring Wells Along South Property Boundary**

On July 5, 2013, LEES personnel mobilized to the subject property and met GET personnel for the installation of three (3) temporary shallow groundwater monitoring wells in selected locations along the south property boundary (LEES also mobilized to the site on July 3, 2013

but had to suspend work due to rain and lightening). The purpose of the temporary wells was to provide a means of sampling shallow groundwater to check for the presence petroleum hydrocarbons adjacent to where the former petroleum product UST reportedly was located on the concrete plant property during previous years.

During the installation of the shallow monitoring wells, LEES collected soil samples at one (1) foot depth intervals and screened the soil samples with a calibrated OVA/FID to check the shallow soils for evidence of petroleum hydrocarbon vapors. During the soil borings for the OVA/FID soil screening activities, soil samples were collected at one (1) foot depth intervals to a terminal depth at the shallow water table. The soil samples were collected in 16 oz. glass jars, which were half-filled with soil from that particular soil sampling depth. The top of the jar was then covered and sealed with aluminum foil creating a headspace inside the jar. Each soil sample was allowed to equilibrate for approximately five (5) minutes before being screened with the OVA/FID meter. According to the results of the OVA/FID soil screening, no evidence of petroleum hydrocarbon vapors was detected in the soil samples that were collected and screened from all of the varying sampling depths (see attached Table 1). In addition, no evidence of petroleum odor was detected in the soil samples. Please refer to Figure 2A for the OVA/FID soil boring and sampling locations identified as TMW-1 through TMW-3.

Temporary monitoring well TMW-1 was installed along the south property boundary approximately 44 feet west of the southeast corner of the property; TMW-2 was installed approximately 30 feet west of TMW-1, and TMW-3 was installed approximately 42 feet west of TMW-2 (see Figure 2A). Each well was constructed of one (1) inch diameter PVC with 10 feet of 0.01" slotted well screen and eight (8) feet of casing/riser. The wells were installed to depths ranging from 12 to 14 feet bgs using direct push technology equipment. The water table measured approximately seven (7) feet and intersected well screens. The wells were developed and then allowed sufficient time to equilibrate pending groundwater quality sampling activities.

After the wells were developed, LEES personnel collected one (1) groundwater quality sample from TMW-1 through TMW-3 in containers supplied by the laboratory, SunLabs, Inc. located in

Tampa, Florida. The containers were labeled to be analyzed for Benzene, Ethylbenzene, Toluene, and Xylenes (BTEX); Polynuclear Aromatic Hydrocarbons (PAHs); and Total Petroleum Hydrocarbons (TPH); and then placed in a cooler with wet ice pending delivery to the laboratory. Selected photographs of the Phase II ESA activities are included in Appendix B.

#### **4.3 Groundwater Quality Sampling and Laboratory Testing Results**

The laboratory analytical results for the groundwater quality samples collected from temporary monitoring wells TMW1, TMW-2, and TMW-3 on July 5, 2013 are summarized on attached Table 1. According to the laboratory analytical results, all of the groundwater samples analyzed were reported as "U" (Undetected) as compared to the laboratory method detection limits, or "I" (between the laboratory method detection limits and laboratory practical quantitation limits). As such, no exceedances of State Groundwater Cleanup Target Levels (GCTLs) were reported per Chapter 62-777 Florida Administrative Code (FAC).

Please refer to Table 1 that summarizes the groundwater laboratory analytical results; Appendix A for a copy of the laboratory analytical report prepared by SunLabs; and Figure 2A that depicts the sampling locations. Selected photographs of the Phase II ESA activities are included in Appendix B.

### **5.0 SUMMARY OF FINDINGS AND CONCLUSION**

Based on the Phase II ESA testing results, the following findings and conclusion can be stated by LEES:

- No evidence of an underground tank was detected during the GPR survey activities that were conducted by GET along the south property boundary.

- No evidence of adverse shallow groundwater impact from petroleum product constituents was reported by the laboratory for the groundwater samples that were collected and analyzed from temporary groundwater monitoring wells TMW-1 through TMW-3.

In summary, based on the Phase II ESA activities conducted, it is LEES opinion that no additional soil or groundwater quality testing is warranted on the subject property concerning potential adverse environmental impacts on the subject property from the former diesel fuel UST that was located on the south abutting concrete plant property during previous years.



**CLEMENTI ENVIRONMENTAL CONSULTING, LLC**

July 2, 2015

Mu-Grow Brothers  
2922 Grand Boulevard  
Holiday, FL 34690

**RE: Gopher Tortoise Survey  
Parcel ID 29-16-0010-01700-0000  
Pasco County**

Attention: Mike Mougroux

Dear Mike:

We have completed the wildlife survey of this tract for the presence of gopher tortoises. Attached is a map of the approximate location of the active burrows we found. The Florida Fish and Wildlife Conservation Commission (FWC) consider the occupancy rate at 50%. Therefore there could be three gopher tortoises on your property. All of the "mouths" of burrows are on the property boundaries therefore the terminus is not on your property. Gopher tortoise burrows can be four to fifteen feet below grade.

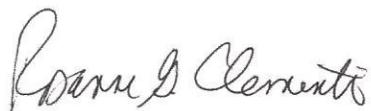
You will need to apply for a permit from FWC to relocate the tortoises to an off-site conservation site of which there are several available. The cost to you to use a recipient site is \$750 to \$800 per tortoise. This cost does not include the cost of the consulting fees to complete the application and the permit fee of \$207.00 for ten or fewer burrows. We would also suggest applying for relocating more than three; perhaps six. If the occupancy is above normal we would have to stop and amend the permit.

You need to factor 50 to 60 days to complete the permitting and relocate the tortoises. Normally we would choose to excavate the burrows but that will not be possible for your property. Bucket traps will have to be installed at the mouths of the burrows and wait for the tortoise to come out of the burrow and fall in the bucket. The buckets have to be checked twice a day. Fortunately you are across from the property which will eliminate the need for a consultant to check them daily. My colleague who is my backhoe operator is also permitted to pull gopher tortoises. This is a method using a long steel cable with a hook at the end. Before we set buckets he will attempt to pull the tortoises. If successful this will significantly reduce the cost of the relocation.

We have already provided you a quote for the permit application and can be prepared to begin work on this on Monday. We suggest you do not wait too long to make your decision.

If you have any questions, please do not hesitate to call. Thank you for the opportunity to assist you with the creation of your new home.

Sincerely,



Rosanne G. Clementi  
Principal

Enclosures: Tortoise Burrow Map  
Invoice 72015479

File: cec\2015-318\surveyletter

**PART II – Quantification of Assessment Area (impact or mitigation)**  
 (See Sections 62-345.500 and .600, F.A.C.)

|                                      |  |  |
|--------------------------------------|--|--|
| Site/Project Name<br>Crossing Church | Application Number                           | Assessment Area Name or Number<br>Unnamed Isolated Cypress Swamp |
| Impact or Mitigation<br>IMPACT       | Assessment conducted by:<br>Rosanne Clementi | Assessment date:<br>20-Feb-15                                    |

|   |   |   |   |  |
|---|---|---|---|--|
| <b>Scoring Guidance</b><br>The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | <b>Optimal (10)</b>   | <b>Moderate (7)</b>   | <b>Minimal (4)</b>  | <b>Not Present (0)</b>   |
|   | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface water functions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

|  |  |
|--|--|
| .500(5)(a) Location and Landscape Support<br><br>Located on a ditch within the parking and driveway of a church.<br><br>wo pres or current: 5      with: 0   |  |
| .500(5)(b) Water Environment (n/a for uplands)<br><br>Adjacent canal has dewatered. Church parking redesign has added water but hydration partial. Cannot rise to historic levels due.<br><br>wo pres or current: 4      with: 0                                 |  |
| .500(5)(c) Community structure<br><br>1. Vegetation and/or<br>2. Benthic Community<br><br>Cypress are stressed. There is no evidence of recruitment of cypress. Edge is has transitioned to high transitional species.<br><br>wo pres or current: 6      with: 0 |  |

|   |
|---|
| Score = sum of above scores/30 (if uplands, divide by 20) |
| current: 0.5      wo pres: 0                              |

|  |
|--|
| If preservation as mitigation,<br>Preservation adjustment factor = |
| Adjusted mitigation delta =  |

|   |
|---|
| For impact assessment areas<br>FL = delta x acres = 0.5 x 1.16 = 0.58 |
|---|

|                        |
|------------------------|
| Delta = [with-current] |
|------------------------|

|  |
|--|
| If mitigation<br>Time lag (t-factor) = |
| Risk factor =                          |

|  |
|--|
| For mitigation assessment areas<br>RFG = delta/(t-factor x risk) = |
|--|

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

**PART II – Quantification of Assessment Area (impact or mitigation)**  
 (See Sections 62-345.500 and .600, F.A.C.)

|                                      |  |   |
|--------------------------------------|--|---|
| Site/Project Name<br>Crossing Church | Application Number                           | Assessment Area Name or Number<br>Ditches |
| Impact or Mitigation<br>IMPACT       | Assessment conducted by:<br>Rosanne Clementi | Assessment date:<br>20-Feb-15             |

|   |   |   |   |  |
|---|---|---|---|--|
| <b>Scoring Guidance</b><br>The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | <b>Optimal (10)</b>   | <b>Moderate (7)</b>   | <b>Minimal (4)</b>  | <b>Not Present (0)</b>   |
|   | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface water functions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

|  |
|--|
| .500(5)(a) Location and Landscape Support<br><br>Surrounding by parking for the church; the north/south ditch abuts the Cross Town.<br><br>w/o pres or current      with<br>4                              0   |
| .500(5)(b) Water Environment (n/a for uplands)<br><br>Hydrology depends on runoff from the site and the Cross Town.<br><br>w/o pres or current      with<br>5                              0   |
| .500(5)(c) Community structure<br><br>1. Vegetation and/or<br>2. Benthic Community<br><br>Ditches have cypress and oak trees on the TOB; little or no emergent or submerged vegetation.<br><br>w/o pres or current      with<br>3                              0 |

|  |  |   |
|--|--|---|
| Score = sum of above scores/30 (if uplands, divide by 20)<br>current<br>w/o pres      with<br>0.4              0 | <b>If preservation as mitigation,</b><br>Preservation adjustment factor =<br>Adjusted mitigation delta = | <b>For impact assessment areas</b><br>FL = delta x acres = 0.4x0.43=0.19  |
| Delta = [with-current]   | <b>If mitigation</b><br>Time lag (t-factor) =<br>Risk factor =   | <b>For mitigation assessment areas</b><br>RFG = delta/(t-factor x risk) = |

Form 62-345.500(2), F.A.C. [effective date 02-04-2004]



**PART II – Quantification of Assessment Area (impact or mitigation)**  
 (See Sections 62-345.500 and .600, F.A.C.)

|                                      |   |   |
|--------------------------------------|---|---|
| Site/Project Name<br>Crossing Church | Application Number                          | Assessment Area Name or Number<br>100-Year Pond |
| Impact or Mitigation<br>Mitigation   | Assessment conducted by:<br>Rosanne Clement | Assessment date:<br>20-Feb-15                   |

|  |   |   |   |  |
|--|---|---|---|--|
| Scoring Guidance<br>The scoring of each Indicator is based on what would be suitable for the type of wetland or surface water assessed | <b>Optimal (10)</b>   | <b>Moderate (7)</b>   | <b>Minimal (4)</b>  | <b>Not Present (0)</b>   |
|  | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface water functions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

|  |   |
|--|---|
| .500(5)(a) Location and Landscape Support<br><br>wo pres or current: 0      with: 4  | The mitigation area will be created in the area of the current 100-year floodplain pond with the Crosstown on the north, an apartment complex on the east, parking on the west and a canal on the south side. |
| .500(6)(b) Water Environment (n/a for uplands)<br><br>wo pres or current: 0      with: 6                                     | The hydrology will be maintained by groundwater and stormwater runoff.  |
| .500(6)(c) Community structure<br><br>1. Vegetation and/or<br>2. Benthic Community<br><br>wo pres or current: 0      with: 6 | The area will be planted with 3 and 7 gallon pond cypress planted 6' OC and an understory of desirable herbaceous species planted 3' OC. There are no adjacent wetlands with nuisance species.                |

|  |         |
|--|---------|
| Score = sum of above scores/30 (if uplands, divide by 20)<br>current<br>or wo pres | with    |
| 0  | 0.53333 |

|   |
|---|
| If preservation as mitigation,<br>Preservation adjustment factor =<br>Adjusted mitigation delta = |
|---|

|   |
|---|
| For impact assessment areas<br>FL = delta x acres = |
|---|

|                        |
|------------------------|
| Delta = [with-current] |
|------------------------|

|   |
|---|
| If mitigation<br>Time lag (t-factor) = 1.25<br>Risk factor = 1.50 |
|---|

|   |
|---|
| For mitigation assessment areas<br>RFG = delta/(t-factor x risk) =<br>0.533/1.67=0.28 |
|---|

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]



**PART II – Quantification of Assessment Area (impact or mitigation)**  
 (See Sections 62-345.500 and .600, F.A.C.)

|  |  |   |
|--|--|---|
| Site/Project Name<br>Crossing Church       | Application Number                           | Assessment Area Name or Number<br>Crossing Church |
| Impact or Mitigation<br>Mitigation Ditches | Assessment conducted by:<br>Rosanne Clementi | Assessment date:<br>20-Feb-15                     |

|   |  |  |   |  |
|---|--|--|---|--|
| <b>Scoring Guidance</b><br>The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | <b>Optimal (10)</b><br>Condition is optimal and fully supports wetland/surface water functions | <b>Moderate (7)</b><br>Condition is less than optimal, but sufficient to maintain most wetland/surface water functions | <b>Minimal (4)</b><br>Minimal level of support of wetland/surface water functions | <b>Not Present (0)</b><br>Condition is insufficient to provide wetland/surface water functions |
|---|--|--|---|--|

|  |   |                    |      |   |   |
|--|---|--------------------|------|---|---|
| .500(5)(a) Location and Landscape Support<br><br>Mitigation for the ditches will be a shallow drainage way from the wetland mitigation area to the canal to the south. It will meander between existing trees. There will be parking on the west side. | <table border="1"> <tr> <td>wo pres or current</td> <td>with</td> </tr> <tr> <td>0</td> <td>4</td> </tr> </table> | wo pres or current | with | 0 | 4 |
| wo pres or current   | with  |                    |      |   |   |
| 0  | 4   |                    |      |   |   |

|   |   |                    |      |   |   |
|---|---|--------------------|------|---|---|
| .500(6)(b) Water Environment (n/a for uplands)<br><br>Hydrology will be maintained by runoff and groundwater. | <table border="1"> <tr> <td>wo pres or current</td> <td>with</td> </tr> <tr> <td>0</td> <td>6</td> </tr> </table> | wo pres or current | with | 0 | 6 |
| wo pres or current  | with  |                    |      |   |   |
| 0   | 6   |                    |      |   |   |

|   |   |                    |      |   |   |
|---|---|--------------------|------|---|---|
| .500(6)(c) Community structure<br><br>1. Vegetation and/or<br>2. Benthic Community<br><br>The ditch will be planted with desirable wetland herbaceous species and cypress trees on the TOB. | <table border="1"> <tr> <td>wo pres or current</td> <td>with</td> </tr> <tr> <td>0</td> <td>6</td> </tr> </table> | wo pres or current | with | 0 | 6 |
| wo pres or current  | with  |                    |      |   |   |
| 0   | 6   |                    |      |   |   |

|   |         |
|---|---------|
| Score = sum of above scores/30 (if uplands, divide by 20) | with    |
| 0   | 0.53333 |

|  |
|--|
| If preservation as mitigation,<br>Preservation adjustment factor = |
| Adjusted mitigation delta =  |

|   |
|---|
| For impact assessment areas<br>FL = delta x acres = |
|---|

|                        |
|------------------------|
| Delta = [with-current] |
|------------------------|

|   |
|---|
| If mitigation<br>Time lag (t-factor) = 1.07 |
| Risk factor = 1.50                          |

|   |
|---|
| For mitigation assessment areas<br>RFG = delta/(t-factor x risk) = 0.53/1.60=0.33 |
|---|

Form 62-345.900(2), F.A.C. [effective date 02-04-2004]

# MU Grow Brothers



0 15 30 60 90 120 Feet

**Figure 4**  
**Gopher Tortoise Burrows**

-  Gopher Tortoise Burrows
-  MU Grow Brothers



CLEMENTI ENVIRONMENTAL CONSULTING, LLC

CLEMENTI ENVIRONMENTAL CONSULTING  
5205 SOUTH LOIS AVENUE  
TAMPA, FL 33611  
WWW.CLEMENTI-EC.COM  
(813) 570-6923

# Ozona

## Engineering, Inc.

P.O. Box 432

Ozona, Florida 34660-432

Phone: 727-785-3939

Fax: 727-785-3434

August 25, 2015

West Pasco Government Center  
Planning and Development Review  
8731 Citizens Drive, Suite 230  
New Port Richey, FL 34654

Attn: Beverly Trudell  
Re: Mu-Grow, SML 15-035

Enclosed please find one (1) set of revised plans and a CD for the above project along with the following response to comments accompanying your letter dated June 17, 2015. The requested color aerial overlay is on the CD.

### Engineering/Stormwater - Aurybel Rivero

1. Cloud changes  
*All changes have been clouded*
2. NPDES  
*See attached application*
3. SWFWMD approval  
*Will be provided*
4. Pre-Inspection Meeting with PC Stormwater Management  
*Acknowledged*
5. Proof of ownership  
*See attached*
6. Sight triangles  
*See revised Sheet CL1.1*
7. Sight triangles  
*See revised Sheet CL1.1*
8. Geotechnical  
*See attached. See Cover Sheet.*
9. Geotechnical  
*See attached certification*
10. Right-of-Way dedication  
*Required 16' right-of-way is acknowledged and indicated on the plans.*
11. Minimum access width  
*See revised Sheet C3.1.*
12. Item 11  
*Not applicable*
13. Driveway radii  
*See Sheet C3.1.*
14. Structural Numbers  
*See Sheet RW.1*
15. Storm sewer  
*See revised Sheet C4.1 and RW.1*

16. Percolation rate  
*See revised Stormwater Report*
17. Erosion Control  
*See Sheet C4.1*
18. Sections and Seed vs Sod on Sheet B3.1  
*A slope of 6:1 is more conservative and should not be objectionable.*
19. Structure 4 top elevation  
*See revised Sheet C4.1*
20. Storm Tabulaion  
*See revised Stormwater Report*
21. Pipe length  
*Pipe length has been corrected on Sheet C4.1*
22. Silt fence Type IV  
*Sheet B3.1 is a standard detail sheet. Some details may not be needed.*
23. Phase I Environmental Report  
*Copy of report is attached*
24. Dumpster  
*No dumpster required*

### **Planning - Beverly Trudell**

- 1-9 Informational  
*Acknowledged*
10. Landscaping Notes  
*Notes added. See Sheet CL1.1*
11. Preliminary Site / Construction Plans  
*Cover Sheet has been changed.*
12. Existing structures  
*See note on Sheet C2.1*
13. Irrigation Method  
*See note on Landscape Plan*
14. Square Footage  
*The square footage shown is for outside building dimensions*
15. Neighbor Notice  
*Notice has been published in the Tampa Bay Times. See attached documentation.*
16. Phasing  
*Per our comment meeting, phasing will be permitted.*
17. Future Land Use  
*The future land use (FLU) of abutting properties has been added to the plans.*
18. Historic Resources Note  
*Note has been added to Sheet C2.1*
19. CSX Railroad Strip  
*Applicant will provide documentation that he is the owner of the 10'-wide Parcel D.*
20. Temporary Storage Units  
*Acknowledged. None proposed*
21. Tree Chart  
*Chart is provided on Sheet CTP.1*
22. Landscaping Maintenance  
*Maintenance entity is designated on Sheet CL1.1*
23. Drought Tolerant Plant Materials  
*See Tree Schedule on Sheet CL1.1*

24. Native Plant Materials  
*See Tree Schedule on Sheet CL1.1*
25. North Buffer  
*Buffer has been reduced to Type A*
26. Loading Areas  
*Plan is acceptable per our comment meeting*
27. Wheel stop detail  
*Wheel stop used for handicap stall only*
28. Handicap Detail  
*See Sheet C6.2*
29. Bicycle Space  
*See Sheet C3.1*
30. Loading Zone  
*Loading zone provided. See Sheet C3.1*
31. Building area is consistent with allowable FAR  
*Acknowledged*
32. FAR Calculation  
*Calculation is shown on Cover Sheet*

**Traffic - David P. Skelunas, P.E.**

- 1-3 *Acknowledged. Plans are consistent with these requirements.*
4. Relocate arrow.  
*See Sheet C3.2*
5. Delete arrow  
*Right in arrow has been deleted. See Sheet C3.2*
6. Sign sizes.  
*See Sheet C3.2*

**Environmental Lands - Katie Mac Millen**

Gopher Tortoises

*We acknowledged that there are gopher tortoises on subject property. See copy of survey attached. The procedure you outlined will be followed.*

We trust this adequately addresses all the comments. Please feel free to contact me should there be any additional questions.

Sincerely,

Gary A. Boucher, P.E.