# FIRE STATION #90 / LAKE COUNTY, FL
# FIRE STATION #104 / CLERMONT, FL
# SITE PLAN

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**CALL BEFORE YOU DIG:**

**Sunshine State One Call**
11 Plantation Road
DeBary, FL 32713
Admin: (800) 638-4097
Locates: 811 or (800) 432-4770

DEVELOPMENT REVIEW

PROJECT # 2014080006 APPLICATION REQUEST # 2546
PROJECT NAME: Lake County Fire Station #90 Clermont
ALTERNATE KEY # 1795044 ORDINANCE # 2015-

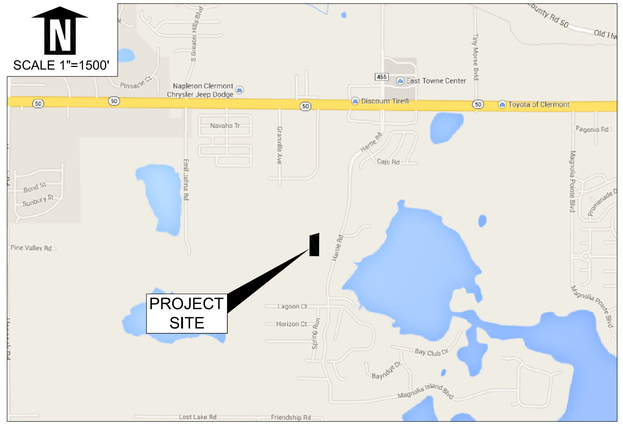
REVIEWER PLEASE SIGN AND DATE BELOW

ENVIRONMENTAL _____
COMMENTS: _____
PUBLIC SAFETY / EMERGENCY 911 _____
COMMENTS: _____
HEALTH DEPARTMENT _____
COMMENTS: _____
FIRE _____
COMMENTS: _____
CONCURRENCY _____
COMMENTS: _____
PUBLIC WORKS _____
COMMENTS: _____
PLANNING AND COMMUNITY DESIGN _____
COMMENTS: _____
LANDSCAPE _____
COMMENTS: _____

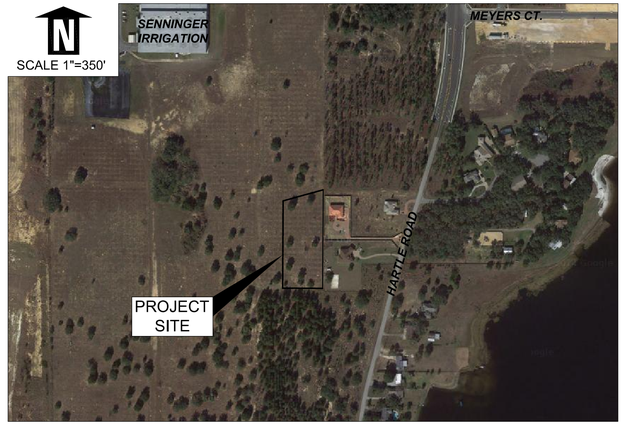
PRELIMINARY/FINAL DEVELOPMENT REVIEW

APPROVAL _____
DATED _____ MANAGER, PLANNING & COMMUNITY DESIGN (OR DESIGNEE)

## VICINITY MAP




## AERIAL MAP




## PROPERTY DESCRIPTION

*THAT PART OF THE FOLLOWING PARCEL OF LAND AS RECORDED IN OFFICIAL RECORDS BOOK 1118, PAGE 2054, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:*

*COMMENCE AT THE NORTHEAST CORNER OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 26 EAST, AND THE NORTHEAST CORNER OF TRACT 39 OF THE MAP OF SECTION 26 OF LAKE HIGHLANDS COMPANY, ACCORDING TO PLAT BOOK 3, PAGE 52 OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE S00°20'25"WEST ALONG THE EAST LINE OF SAID WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 26 AND THE EAST LINE OF TRACTS 39 AND 42 FOR 1306.84 FEET TO THE POINT OF BEGINNING (SAID POINT ALSO BEING THE POINT OF INTERSECTION WITH THE PROPOSED SOUTHERLY RIGHT OF WAY LINE OF THE PROPOSED RE-ALIGNMENT FOR HARTLE ROAD); THENCE CONTINUE S00°20'25"WEST ALONG SAID EAST LINE FOR 482.04 FEET; THENCE N89°36'16"W FOR 195.00 FEET; THENCE N00°20'25"E FOR 426.84 DEET TO THE SAID PROPOSED SOUTHERLY RIGHT OF WAY LINE FOR HARTLE ROAD; THENCE N74°35'13"E ALONG SAID PROPOSED SOUTHERLY RIGHT OF WAY LINE FOR 202.61 FEET TO THE POINT OF BEGINNING.*

*CONTAINING 2.03 ACRES OR 88,615 SQUARE FEET MORE OR LESS.*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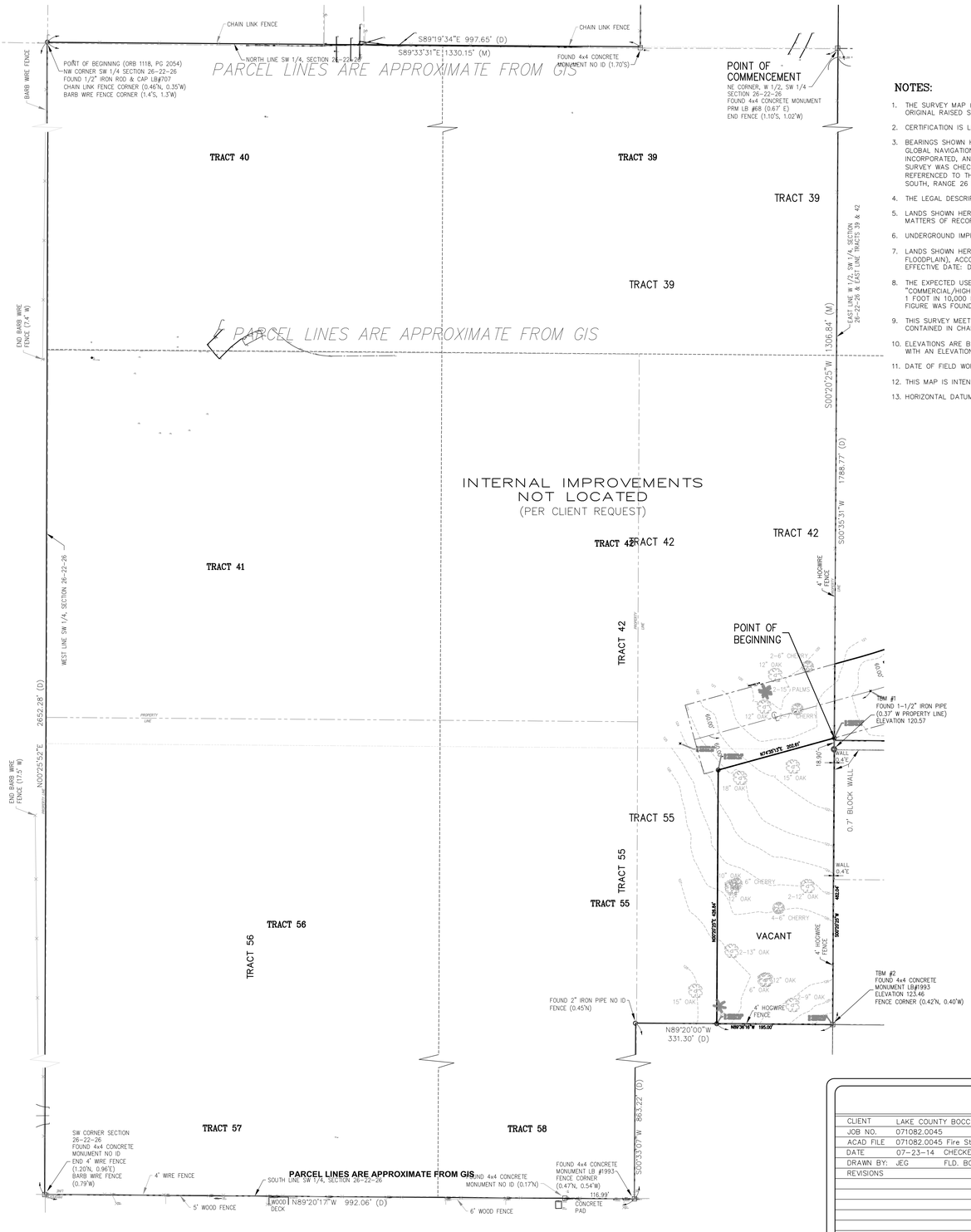
FIRE STATION #90
LAKE COUNTY, FL
FIRE STATION #104
CLERMONT, FL
SITE PLAN

COVER

| REV. # DATE | DRAWN BY: D.M.K. |
|---|---|
| | CHECKED BY: D.A.G. |
| 01-26-2015 | DRAWING #: 13011_02_10 |
| 01-19-2015 | PROJECT #: 13011GEN |
| DATE: 08-27-2014 | SCALE: AS NOTED |

N

SCALE 1"=100'

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THAT PART OF THE FOLLOWING PARCEL OF LAND AS RECORDED IN OFFICIAL RECORDS BOOK 1118, PAGE 2054, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 26 EAST, AND THE NORTHEAST CORNER OF TRACT 39 OF THE MAP OF SECTION 26 OF LAKE HIGHLANDS COMPANY, ACCORDING TO PLAT BOOK 3, PAGE 52 OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE S00°20'25"WEST ALONG THE EAST LINE OF SAID WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 26 AND THE EAST LINE OF TRACTS 39 AND 42 FOR 1306.84 FEET TO THE POINT OF BEGINNING (SAID POINT ALSO BEING THE POINT OF INTERSECTION WITH THE PROPOSED SOUTHERLY RIGHT OF WAY LINE OF THE PROPOSED RE-ALIGNMENT FOR HARTLE ROAD); THENCE CONTINUE S00°20'25"WEST ALONG SAID EAST LINE FOR 482.04 FEET; THENCE N89°36'16"W FOR 195.00 FEET; THENCE N00°20'25"E FOR 426.84 DEET TO THE SAID PROPOSED SOUTHERLY RIGHT OF WAY LINE FOR HARTLE ROAD; THENCE N74°35'13"E ALONG SAID PROPOSED SOUTHERLY RIGHT OF WAY LINE FOR 202.61 FEET TO THE POINT OF BEGINNING.

CONTAINING 2.03 ACRES OR 88,615 SQUARE FEET MORE OR LESS.

## DESCRIPTION (PARENT PARCEL):

(OFFICIAL RECORDS BOOK 1118, PAGE 2054)

BEGIN AT THE WEST 1/4 CORNER OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA; THENCE RUN SOUTH 89 DEGREES 19 MINUTES 34 SECONDS EAST ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 26, FOR 997.65 FEET TO THE SOUTHWEST CORNER OF THE EAST 1/4 OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 26; THENCE RUN NORTH 00 DEGREES 38 MINUTES 33 SECONDS EAST ALONG THE WEST LINE OF THE EAST 1/4 OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 26, FOR 1287.06 FEET TO THE SOUTH RIGHT OF WAY LINE OF STATE ROAD #50; THENCE RUN SOUTH 88 DEGREES 53 MINUTES 12 SECONDS EAST ALONG SAID RIGHT OF WAY LINE FOR 333.05 FEET TO THE EAST LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 26; THENCE RUN SOUTH 00 DEGREES 39 MINUTES 52 SECONDS WEST FOR 1284.50 FEET TO THE NORTHEAST CORNER OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 26; THENCE RUN SOUTH 00 DEGREES 35 MINUTES 31 SECONDS WEST ALONG THE EAST LINE OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 26 FOR 1788.77 FEET TO A 4"X4" CONCRETE MONUMENT AND CAP #1993; THENCE RUN NORTH 89 DEGREES 20 MINUTES 00 SECONDS WEST FOR 331.30 FEET TO A 4"X4" CONCRETE MONUMENT AND CAP #1993; THENCE RUN SOUTH 00 DEGREES 33 MINUTES 07 SECONDS WEST FOR 863.22 FEET TO A 4"X4" CONCRETE MONUMENT AND CAP #1993 ON THE SOUTH LINE OF SAID SECTION 26; THENCE RUN NORTH 89 DEGREES 20 MINUTES 17 SECONDS WEST FOR 992.06 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 26; THENCE RUN NORTH 00 DEGREES 25 MINUTES 52 SECONDS EAST FOR 2652.26 FEET TO THE POINT OF BEGINNING.

## NOTES:

1. THE SURVEY MAP (AND/OR) REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. CERTIFICATION IS LIMITED TO PARTIES NAMED HEREON.
3. BEARINGS SHOWN HEREON ARE FLORIDA STATE PLANE COORDINATE EAST ZONE BASED ON LENGEMANN L-NET GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) NETWORK, THAT IS CERTIFIED BY WANTMAN GROUP, INCORPORATED, AND IS BASED ON NORTH AMERICAN DATUM OF 1983, 2007 ADJUSTMENT (SPCS'83-2007) THIS SURVEY WAS CHECKED TO LAKE COUNTY GEODETIC AND BENCHMARK DENSIFICATION PROJECT 2002 "LK 176" AND REFERENCED TO THE EAST LINE OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 26, TOWNSHIP 22 SOUTH, RANGE 26 EAST AS BEING SOUTH 00°20'25" WEST.
4. THE LEGAL DESCRIPTION WAS CREATED BY THIS SURVEYOR.
5. LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR EASEMENTS, RIGHTS OF WAY, OWNERSHIP OR OTHER MATTERS OF RECORD BY THIS FIRM.
6. UNDERGROUND IMPROVEMENTS SUCH AS UTILITIES, FOUNDATIONS, ETC. WERE NOT LOCATED.
7. LANDS SHOWN HEREON LIE IN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL FLOODPLAIN), ACCORDING TO FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 12069 C 0595 E EFFECTIVE DATE: DECEMBER 18, 2012.
8. THE EXPECTED USE OF LAND, AS CLASSIFIED IN THE MINIMUM TECHNICAL STANDARDS (5J-17.051 FAC), IS "COMMERCIAL/HIGH RISK". THE MINIMUM RELATIVE DISTANCE ACCURACY FOR THIS TYPE OF BOUNDARY SURVEY IS 1 FOOT IN 10,000 FEET. THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS FOUND TO EXCEED THIS REQUIREMENT.
9. THIS SURVEY MEETS ALL APPLICABLE REQUIREMENTS OF THE FLORIDA MINIMUM TECHNICAL STANDARDS AS CONTAINED IN CHAPTER 5J-17.052 OF THE FLORIDA ADMINISTRATIVE CODES.
10. ELEVATIONS ARE BASED ON LAKE COUNTY GEODETIC AND BENCHMARK DENSIFICATION PROJECT 2002 "LK 176" WITH AN ELEVATION OF 156.327 NAVD 1988.
11. DATE OF FIELD WORK IS REFLECTED IN TITLE BLOCK, NOT THE DATE OF SIGNATURE.
12. THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1/100 OR SMALLER.
13. HORIZONTAL DATUM SHOWN HEREON IS IN U.S. FEET.

## LEGEND

| | |
|---|---|
| ○ | SET 5/8" IRON ROD AND CAP (LB 7514) OR AS NOTED |
| (M) | MEASURED |
| (D) | DEED |
| ℄ | CENTERLINE |
| ID | IDENTIFICATION |
| LB | LICENSED BUSINESS |
| ORB | OFFICIAL RECORDS BOOK |
| PG | PAGE |
| TBM | TEMPORARY BENCHMARK |

| | |
|---|---|
| CLIENT | LAKE COUNTY BOCC |
| JOB NO. | 071082.0045 |
| ACAD FILE | 071082.0045 Fire Station_BD-TP |
| DATE | 07-23-14 CHECKED BY: JMS |
| DRAWN BY: | JEG FLD. BOOK:DA MISC 6 |
| REVISIONS | DATE |

BOUNDARY & TOPOGRAPHIC SURVEY

IN SECTION 26, TOWNSHIP 22 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA.

FIRE STATION #90


BESH
BOOTH ERN STRAUGHAN HOTT
902 North Sinclair Ave. Office: 352.343.8481
Tavares, Florida 32778 Fax: 352.343.8495
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ENGINEERS SURVEYORS PLANNERS
LICENSED BUSINESS 7514



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FIRE STATION #90
LAKE COUNTY, FL

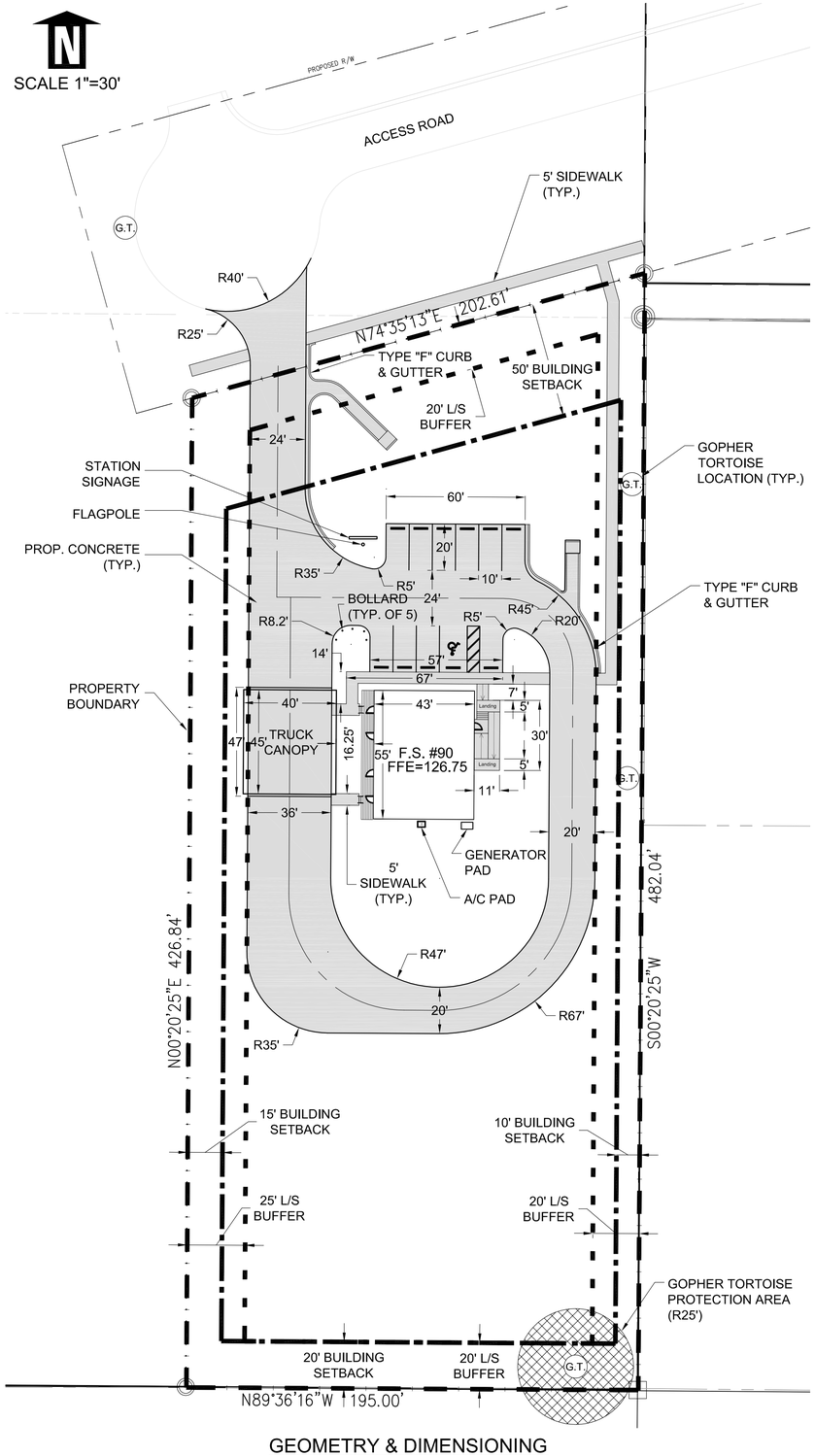
FIRE STATION #104
CLERMONT, FL

SITE PLAN

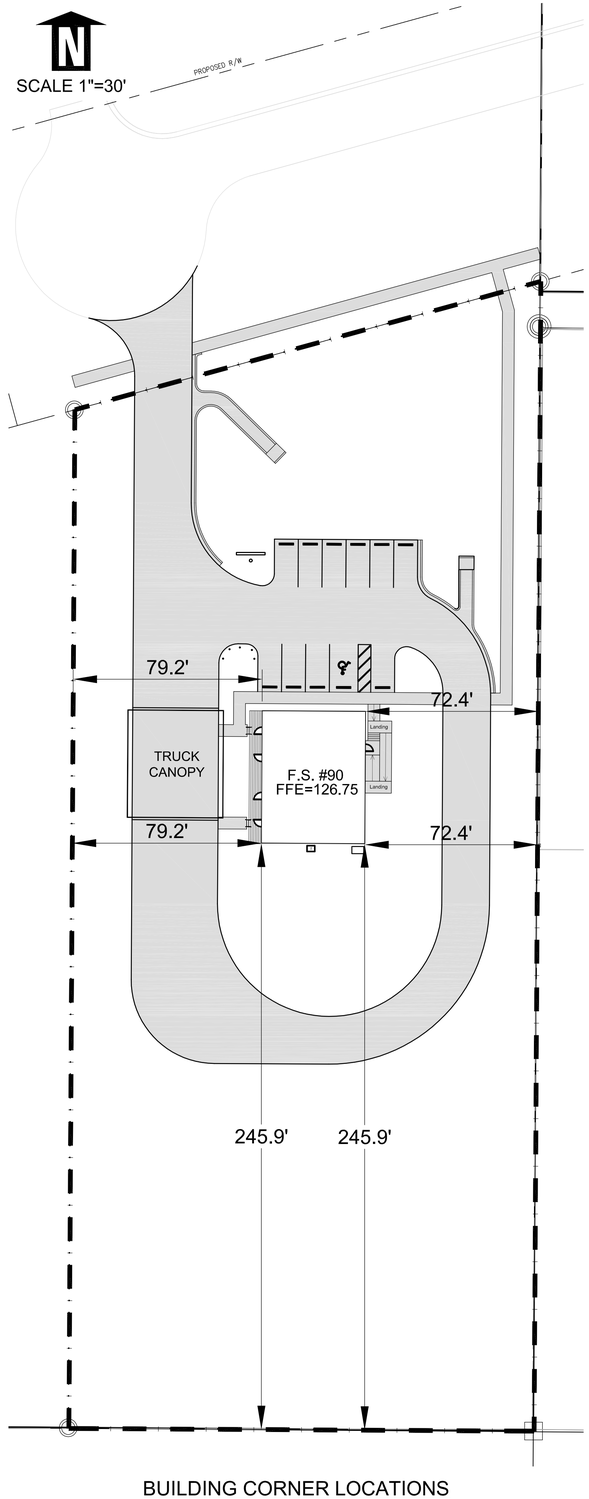
SURVEY

| REV. # DATE | DRAWN BY: |
|---|---|
| | D.M.K. |
| 01-26-2015 | CHECKED BY: D.A.G. |
| 01-19-2015 | DRAWING #: 13011_02_10 |
| 12-18-2014 | PROJECT #: 13011GEN |
| DATE: 08-27-2014 | SCALE: AS NOTED |

SHEET 2 OF 9




GEOMETRY & DIMENSIONING

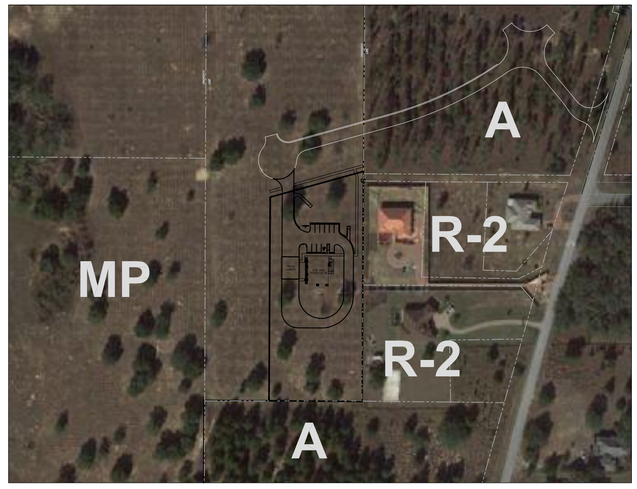



BUILDING CORNER LOCATIONS

**PROJECT DATA**

| | |
|---|---|
| **ZONING :** | CFD (PROPOSED) |
| **FUTURE LAND USE AREA :** | REGIONAL OFFICE |
| **PROJECT AREA :** | 88,615.35 s.f. (2.03 ac) |
| **IMPERVIOUS AREA :** | 22,600.05 s.f. (0.52 ac) |
| **PERCENT IMPERVIOUS :** | 25.50% |
| **IMPERVIOUS SURFACE RATIO (ISR):** | 0.26 (MAX. 0.75) |
| **OPEN SPACE:** | 74.5% |
| **BUILDING SIZE:** | 2,406 sf |
| **FLOOR AREA RATIO (FAR):** | 0.03 (MAX. 1.0) |
| **PARKING CALCULATIONS*** | |
| **PARKING PROVIDED:** | 10 spaces |
| **ACCESSIBLE SPACES:** | 1 space |
| **MAX. BLDG. HEIGHT:** | 50 feet |
| **UTILITIES** | |
| **WATER :** | CITY OF CLERMONT |
| **SEWER :** | CITY OF CLERMONT |
| **ELECTRIC :** | DUKE ENERGY |
| **TELEPHONE :** | CENTURYLINK |
| **FLOOD ZONE :** | X (FIRM 12069C0595E, 12-18-2012) |

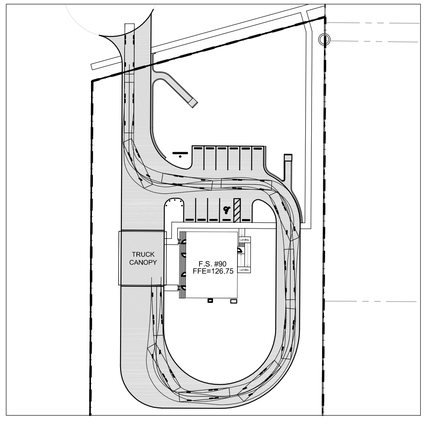
***NO PARKING RATE IN COUNTY LDR. NUMBER OF SPACES DICTATED BY USER (FIRE DEPARTMENT).**




N ZONING MAP
SCALE 1"=150'

**LEGEND**

- 65 EX. CONTOURS
- 65 PROP. CONTOURS
- PROPERTY BOUNDARY
- BUILDING SETBACK
- LANDSCAPE BUFFER
- G.T. GOPHER TORTOISE LOCATION
- G.T. GOPHER TORTOISE LOCATION W/ 25' PROTECTION ZONE




N TURN PATH DETAIL
SCALE 1"=60'

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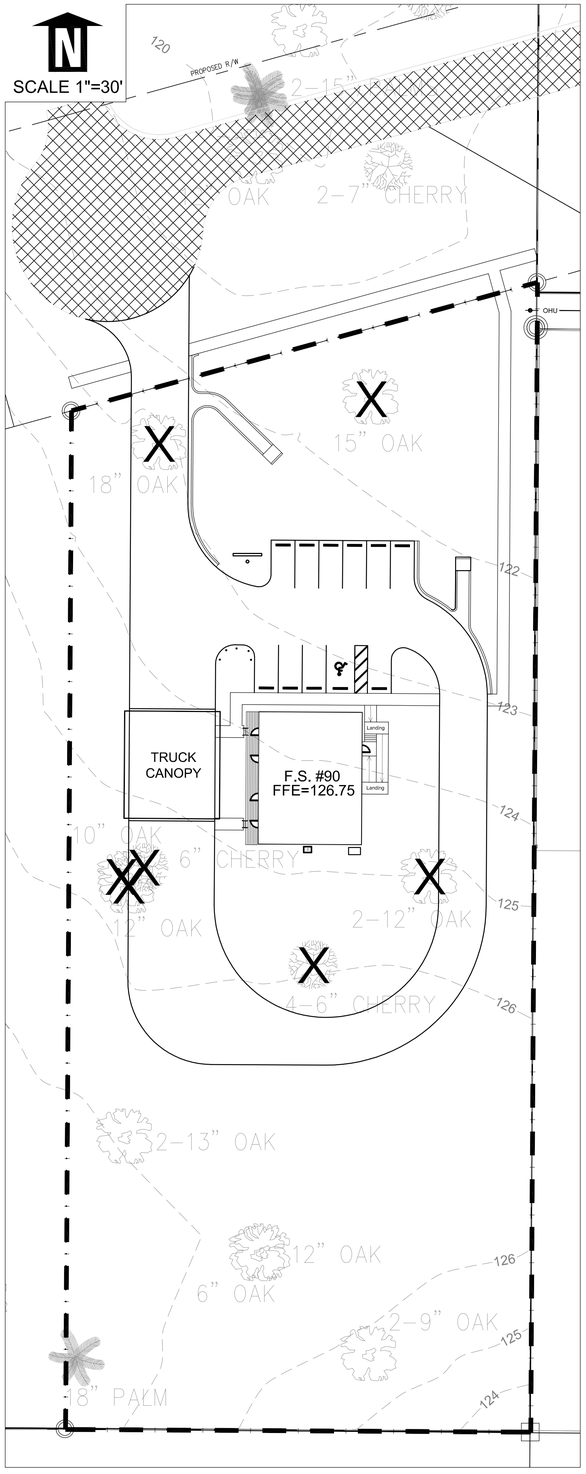
FIRE STATION #90
LAKE COUNTY, FL

FIRE STATION #104
CLERMONT, FL

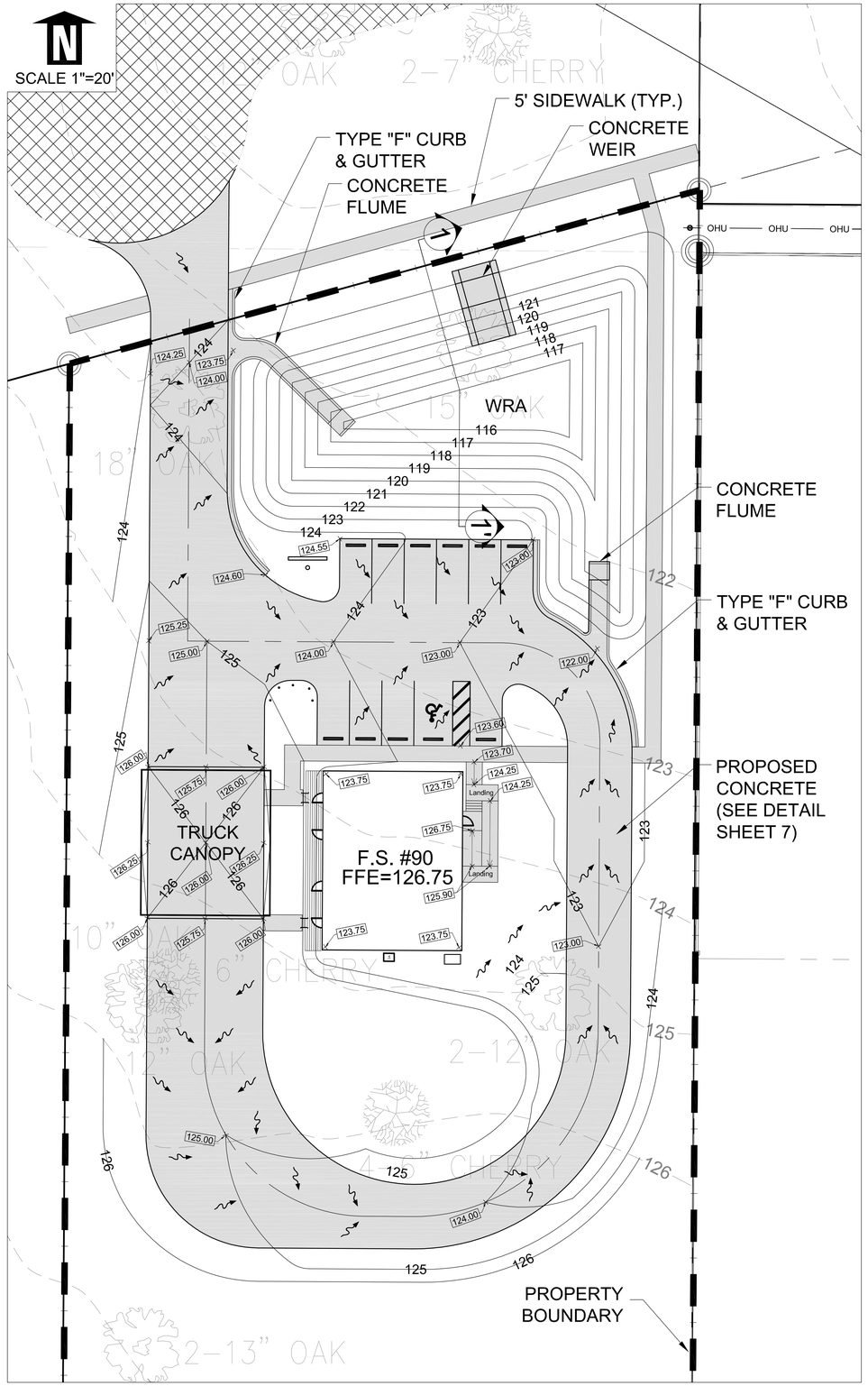
SITE PLAN

LAYOUT

| REV. # DATE | DRAWN BY: D.M.K. |
|---|---|
| 01-26-2015 | CHECKED BY: D.A.G. |
| 01-19-2015 | DRAWING #: 13011_02_10 |
| 12-18-2014 10-07-2014 | PROJECT #: 13011GEN |
| DATE: 08-27-2014 | SCALE: AS NOTED |

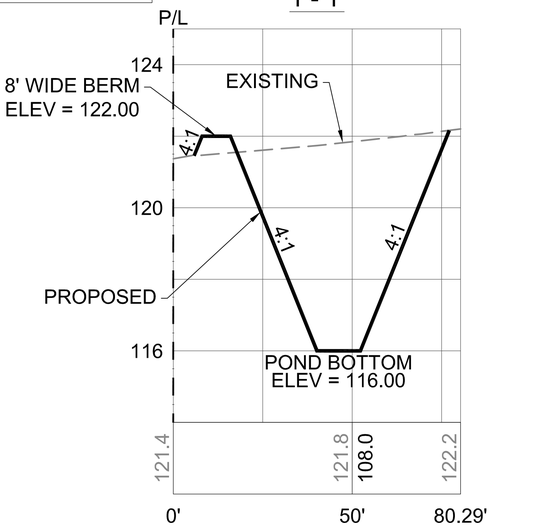



TREE REMOVAL




CROSS-SECTION
HORIZONTAL 1"= 20'
VERTICAL 1"= 2'

## WRA CROSS SECTION
1 - 1'




NOTE:
POND SIDES TO BE STAKED AND SODDED.
POND BOTTOM TO BE SEEDED AND MULCHED.

**LEGEND**

- 65 — EX. CONTOURS
- 65 — PROP. CONTOURS
- PROPERTY BOUNDARY
- 122.00 — PROP. SPOT ELEVATION
- PROP. FLOW ARROW
- PROP. CONCRETE
- X — EX. TREE TO BE REMOVED

**CONSTRUCTION PROCEDURES FOR RETENTION BASINS:**

INITIALLY CONSTRUCT THE RETENTION BASIN TO ROUGH GRADE BY UNDER-EXCAVATING THE BASIN BOTTOM AND SIDES BY APPROXIMATELY 12 INCHES. AFTER THE DRAINAGE AREA CONTRIBUTING TO THE BASIN HAS BEEN FULLY STABILIZED, THE INTERIOR SIDE SLOPES AND BASIN BOTTOM SHOULD BE EXCAVATED TO FINAL DESIGN SPECIFICATIONS. THE EXCESS SOIL AND UNDESIRABLE MATERIAL SHOULD BE CAREFULLY EXCAVATED AND REMOVED FROM THE POND SO THAT ALL ACCUMULATED SILTS, CLAYS, ORGANICS, AND OTHER FINE SEDIMENT MATERIAL HAS BEEN REMOVED FROM THE POND AREA. THE EXCAVATED MATERIAL SHOULD BE DISPOSED OF BEYOND THE LIMITS OF THE DRAINAGE AREA OF THE BASIN. ONCE THE BASIN HAS BEEN EXCAVATED TO FINAL GRADE, THE ENTIRE BASIN BOTTOM SHOULD BE DEEP RAKED AND LOOSENED FOR OPTIMAL INFILTRATION. FINALLY, THE BASIN SHOULD BE STABILIZED AS PER THE DEVELOPMENT PLAN.

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SITE PLAN

PAVING, GRADING AND DRAINAGE

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|---|---|
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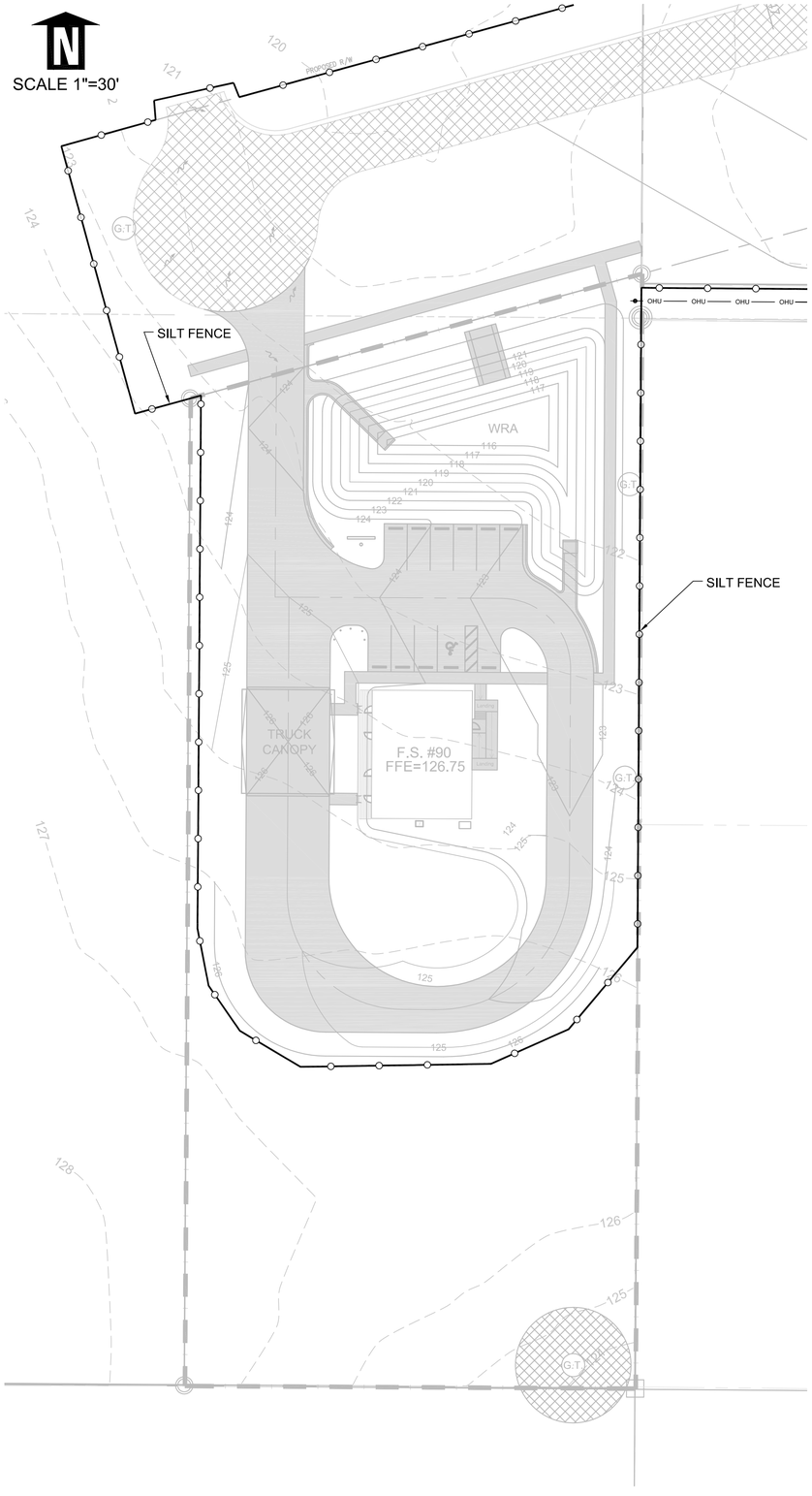



***OPERATION & MAINTENANCE:***

*MAINTENANCE OF THE STORMWATER TREATMENT SYSTEM SHALL BE PERFORMED ON AN AS-NEEDED BASIS. MAINTENANCE SHALL INCLUDE AT LEAST THE FOLLOWING:*

1. *REMOVAL OF TRASH AND DEBRIS.*
2. *INSPECTION OF INLETS AND OUTLETS.*
3. *REMOVAL OF SEDIMENTS OR VEGETATION WHEN THE STORAGE VOLUME OR CONVEYANCE CAPACITY OF THE STORMWATER MANAGEMENT SYSTEM IS BELOW DESIGN LEVELS.*
4. *STABILIZATION AND RESTORATION OF ERODED AREAS.*
5. *MOWING AND REMOVAL OF GRASS CLIPPINGS. AERATION, TILLING, OR REPLACEMENT OF TOPSOIL AS NEEDED TO RESTORE THE PERCOLATION CAPABILITY OF THE SYSTEM. IF TILLING OR REPLACEMENT OF THE TOPSOIL IS UTILIZED, VEGETATION MUST BE REESTABLISHED WITHIN 60 DAYS OF DISTURBANCE OF THE TOPSOIL.*

***EROSION & SEDIMENT CONTROL NOTES:***

1. *PROTECT ALL INLETS, MITERED END SECTION, AND ENDWALLS ( EXISTING & PROPOSED) PER FDOT INDEX 102. HAY BALES ARE NOT ALLOWED.*
2. *SOIL TRACKING PREVENTION DEVICE SHOULD BE CONSTRUCTED AS PER FDOT INDEX 106 AT POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO ROADS WHERE OFF SITE TRACKING OF MUD COULD OCCUR.*
3. *CONTRACTOR SHALL DESILT ALL DRAINS DITCHES, SWALES, AND PONDS AT COMPLETION OR CONSTRUCTION.*
4. *ALL DISTURBED AREA WILL BE BROUGHT TO FINAL GRADE AND SODDED AS SOON AS POSSIBLE.*
5. *EROSION , SEDIMENT, AND TURBIDITY CONTROL SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION OF THE PROJECT. THESE CONTROL MEASURES ARE ONLY THE MINIMUM REQUIRED AND ADDITION CONTROLS SHALL BE UTILIZED AS NEEDED DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.*

*CONSTRUCTION SEQUENCE:*

1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE*
2. *INSTALL SILT FENCES AND HAY BALES AS REQUIRED*
3. *STOCKPILE TOPSOIL IF REQUIRED*
4. *PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED*
5. *STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICAL*
6. *INSTALL PAVEMENT*
7. *SOD AS SPECIFIED*
8. *REMOVE ACCUMULATED SEDIMENT FROM BASINS*
9. *WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY BMP MEASURES*

*DEWATERING METHODS AND LOCATIONS:*

*DEWATERING SHALL BE UTILIZED ONLY IF NECESSARY BY MEANS OF A WELL POINT SYSTEM. DISCHARGE FROM THE WELL POINT SYSTEM SHALL BE DIRECTED TO THE PROPOSED DRAINAGE STRUCTURES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR WELL POINT SYSTEM PRIOR TO CONSTRUCTION.*

*PERMANENT EROSION CONTROL MEASURES (BMP'S):*

*PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED UNLESS OTHERWISE NOTED FOR SOD ON THE APPROVED PLANS.*

***CONTROL OF WIND EROSION***

1. *BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.*
2. *AS REQUIRED AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.*
3. *AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL FOR A SILT FENCE EXCEPT. THE MINIMUM HEIGHT SHALL BE 4 FEET.*

*IN ADDITION TO THOSE RESPONSIBILITIES OUTLINED WITHIN THE CONSTRUCTION PLANS AND DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING MEASURES:*

1. *PROJECT SCHEDULE WITH EROSION AND SEDIMENT CONTROL INSTALLATION AND MAINTENANCE TIED TO SPECIFIC DATES OR CONSTRUCTION ACTIVITIES.*
2. *ALTERATIONS TO THE DESIGN EROSION AND SEDIMENT CONTROLS DUE TO DIFFERENCES BETWEEN THE DESIGN PLANS AND ANTICIPATED CONSTRUCTION PHASING AND THE CONTRACTOR'S CONSTRUCTION METHODS.*
3. *NAME AND PHONE NUMBER OF CONTRACTOR'S REPRESENTATIVE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL INSTALLATION AND MAINTENANCE ON A 24 HOUR BASIS.*
4. *THE CONTRACTOR WILL FURNISH, INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE, ALL NECESSARY EROSION CONTROL. THE CONTRACTOR WILL FURNISH AND INSTALL ALL NECESSARY PERMANENT EROSION CONTROLS.*
5. *THE DEVELOPMENT OF THE APPLICABLE BMP'S TO ENSURE THE CONTROL OF OFF-SITE TRACKING SPILLAGE, SANITARY WASTE, FERTILIZERS & PESTICIDES, SOLID WASTE DISPOSAL, AND NON-STORMWATER DISCHARGES & HAZARDOUS WASTE. WHEN THE CONTRACTOR ENCOUNTERS A SPILL, CONSTRUCTION WILL STOP AND WORK WILL NOT RESUME UNTIL DIRECTED BY THE PROJECT ENGINEER. DISPOSITION OF HAZARDOUS WASTE WILL BE MADE IN ACCORDANCE WITH ANY REQUIREMENTS AND REGULATIONS OF ANY LOCAL, STATE, OR FEDERAL AGENCY HAVING JURISDICTION.*

**LEGEND**

SILT FENCE

*INSPECTIONS:*

*A. CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AFTER EACH RAINFALL GREATER THAN 0.5 INCHES. A RAIN GAGE WILL BE ON SITE TO MEASURE THE RAINFALL AMOUNTS.*
*B. ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS OR SOMEONE APPOINTED BY THE SUPERINTENDENT. AT LEAST ONCE AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.*
*C. ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OR REPORTED.*
*D. BUILT UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.*
*E. THE SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.*
*F. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.*
*G. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION CONTROL PLANS OR STORMWATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.*
*H. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ON-SITE IN GOOD WORKING ORDER AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORTS.*

*ADDITIONAL NOTES:*

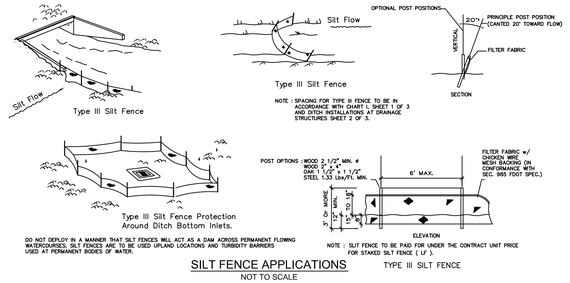
*A. NON-STORMWATER DISCHARGES:*
*IT IS EXPECTED THAT THE FOLLOWING NON-STORMWATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:*
*1. PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).*
*2. UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).*
*ALL NON-STORMWATER DISCHARGES WILL BE DIRECTED TO THE PROPOSED DRAINAGE STRUCTURES/SWALES.*
*B. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL IF IT BECOMES NECESSARY TO MEET THE STATE AND LOCAL STANDARDS.*

***LOCATION:***

***SITE LOCATION: HARTLE ROAD, CLERMONT, FL***
***SEC 26 TWP 22S RNG 26E***

***SITE AREA: 2.03 ACRES***

***LAT/LONG: 28° 32' 18.42" N / 81° 41' 12.4656"W***




SILT FENCE APPLICATIONS — TYPE III SILT FENCE
NOT TO SCALE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PHONE [352] 343-9800


FIRE STATION #90
LAKE COUNTY, FL

FIRE STATION #104
CLERMONT, FL

SITE PLAN

STORMWATER POLLUTION PREVENTION PLAN

| REV. # DATE | DRAWN BY: D.M.K. |
|---|---|
| 01-26-2015 | CHECKED BY: D.A.G. |
| 01-19-2015 | DRAWING #: 13011_02_10 |
| 12-18-2014 | PROJECT #: 13011GEN |
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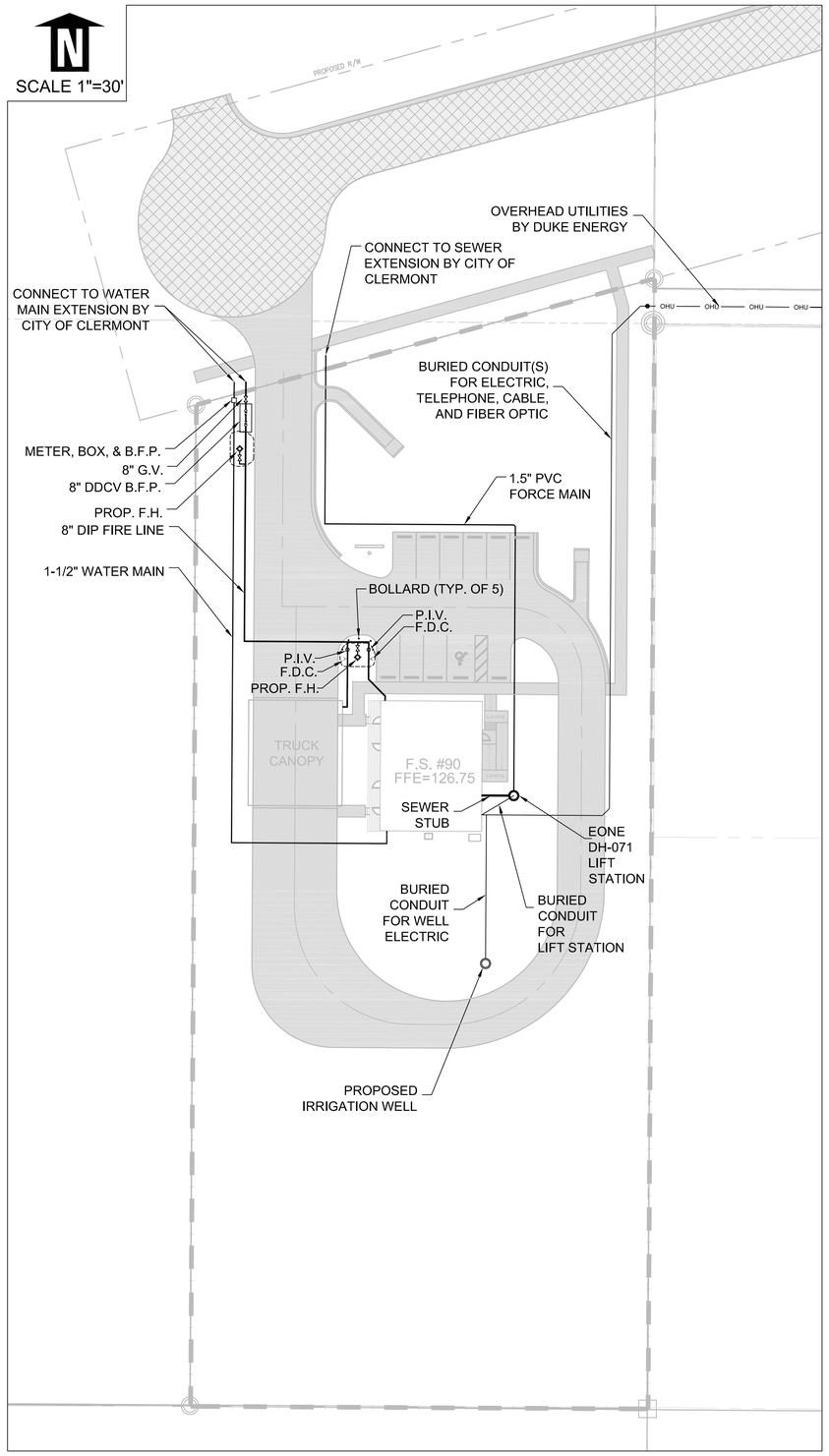
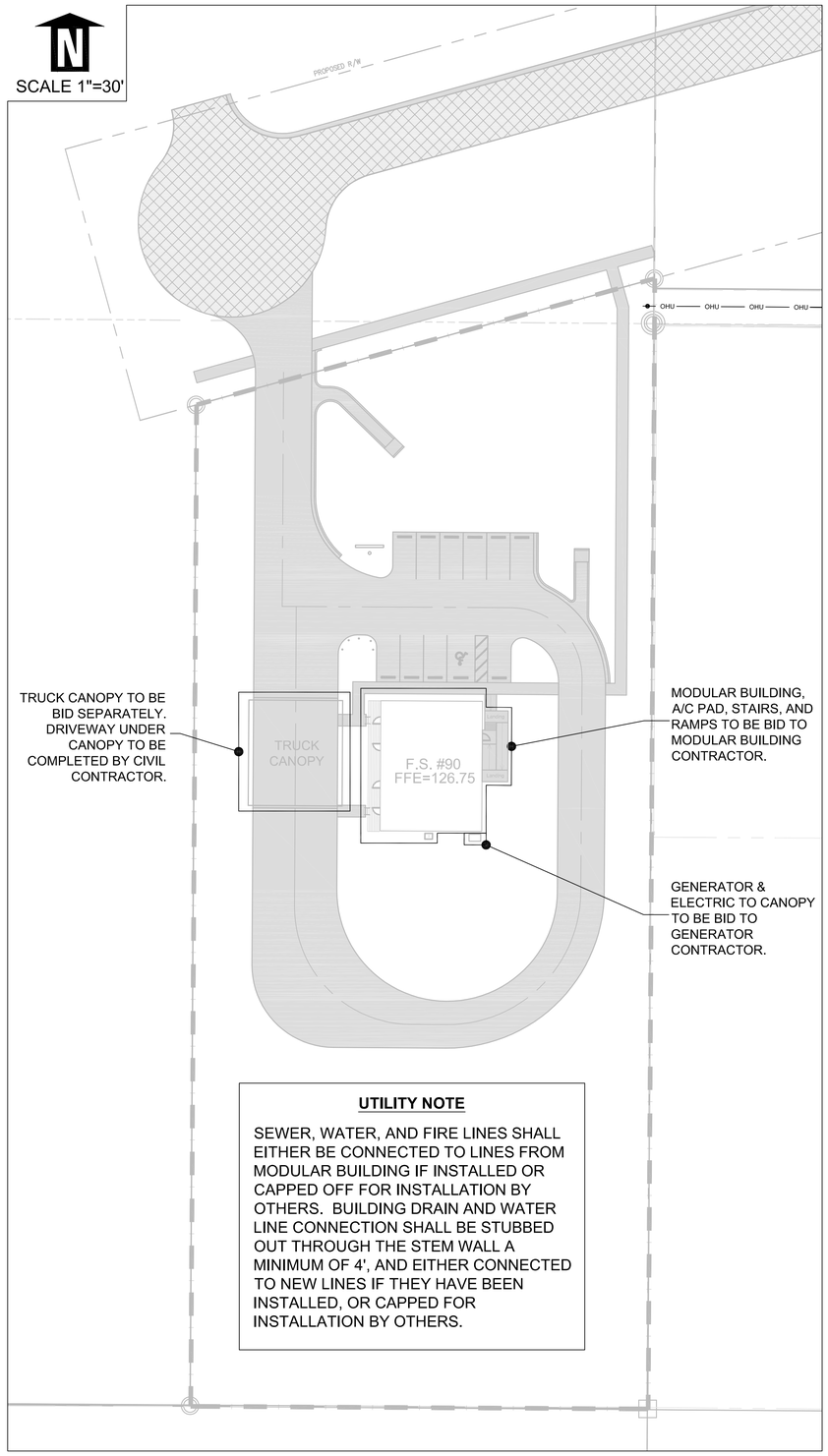



UTILITY PLAN




**UTILITY NOTE**

SEWER, WATER, AND FIRE LINES SHALL EITHER BE CONNECTED TO LINES FROM MODULAR BUILDING IF INSTALLED OR CAPPED OFF FOR INSTALLATION BY OTHERS. BUILDING DRAIN AND WATER LINE CONNECTION SHALL BE STUBBED OUT THROUGH THE STEM WALL A MINIMUM OF 4', AND EITHER CONNECTED TO NEW LINES IF THEY HAVE BEEN INSTALLED, OR CAPPED FOR INSTALLATION BY OTHERS.

BIDDING NOTES

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SITE PLAN

UTILITY PLAN
& BIDDING NOTES

| REV. # DATE | DRAWN BY: D.M.K. |
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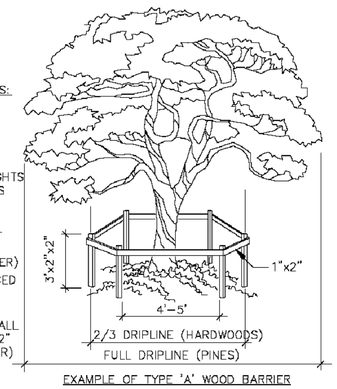
INSTALLATION SPECIFICATIONS:

* NOTE: EITHER TYPE 'A' BARRICADE (WOOD) OR TYPE 'B' BARRICADE (RIBBON) MAY BE USED.

1. MINIMUM RADIUS TO BE PROTECTED:
   PINES:
   DRIPLINE OR 6', WHICHEVER IS GREATER.
   HARDWOODS AND ALL OTHERS:
   2/3 OF THE DRIPLINE OR 6', WHICHEVER IS GREATER.
2. METHOD OF ERECTION: (SEE DIAGRAM)
   A. MINIMUM HEIGHT OF UPRIGHTS SHALL BE 3' AND NO LESS THAN 2"x2" LUMBER.
   B. UPRIGHTS SHALL HAVE HORIZONTAL RIBBONING AT THE TOP AND 12" BELOW THE TOP. (TYPE 'B' BARRIER)
   C. UPRIGHTS SHALL BE SPACED AT NO MORE THAN 4'-5' INTERVALS.
   D. HORIZONTAL MEMBERS SHALL BE OF NO LESS THAN 1"x2" LUMBER. (TYPE 'A' BARRIER)



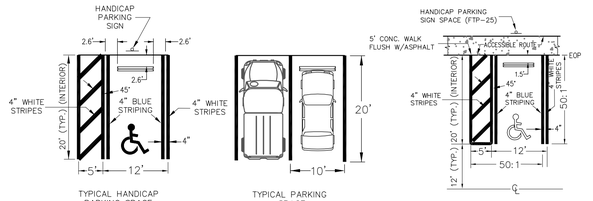

EXAMPLE OF TYPE 'A' WOOD BARRIER

NOTES:

1. NO TREE SHALL BE REMOVED UNLESS SPECIFICALLY TAGGED FOR REMOVAL BY THE ENGINEER.
2. THE CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE ANY TREES THAT ARE TO REMAIN.
3. ROOTS GREATER THAN 1" DIAM. SHALL NOT BE CUT UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. ROOTS OF 1" DIAM. OR LARGER THAT NEED TO BE CUT SHALL BE CUT NEATLY.
5. STOCKPILED MATERIALS OR UNNECESSARY VEHICULAR TRAFFIC SHALL NOT BE ALLOWED OVER ANY TREE ROOT SYSTEM.
6. TYPE 'A' BARRIER OR TYPE 'B' BARRIER SHALL BE CONSTRUCTED WHEN CALLED FOR ON PLANS OR AS DIRECTED BY THE ENGINEER. BARRIERS SHALL BE MAINTAINED IN PLACE UNTIL REMOVAL IS DIRECTED BY THE ENGINEER.

## TREE BARRICADE DETAIL

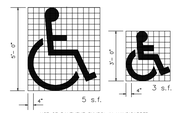
N.T.S.




NOTE:
PARKING STALLS SHALL BE MARKED WITH WHITE & BLUE THERMOPLASTIC PER FLORIDA ACCESSIBILITY CODE SECTION 4.6.1

NOTE:
1. ACCESSIBILITY: A) IN ACCORDANCE WITH THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION, 41.3 SECTION (1) DATE: OCT. 1997 AT LEAST ONE ACCESSIBLE ROUTE COMPLYING WITH 4.3 SHALL CONNECT ACCESSIBLE BUILDING OR FACILITY. DOORS ACCESSING THE BUILDING MUST BE DEPICTED ON SITE PLAN. RAMP DETAILS WITH SLOPE INFORMATION SHALL BE DEPICTED ON SITE PLAN.
(B) THE LOCATION OF HANDICAP PARKING STALLS, LOADING ZONES, SIDEWALKS AND RAMPS SHALL MEET CHAPTER 318.1955 OF THE FLORIDA ACCESSIBILITY CODE. RAMPS SHALL NOT EXCEED 12:1 SLOPES PARKING SPACE AND AISLE SHALL NOT EXCEED 50:1 CROSS-SLOPE (TLO 11-26-96) 12-11-96

NOTE: (HANDICAP SIGN ONLY)
1. ALL LETTERS SHALL BE BLACK AND SHALL CONFORM TO FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS".
2. TOP PORTION OF SIGN SHALL HAVE RETROFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A RETROFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK BORDER.
4. ONE SIGN REQUIRED FOR EACH PARKING SPACE.
5. HEIGHT OF SIGN SHALL BE 7' ABOVE GROUND IN ACCORDANCE WITH FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS"

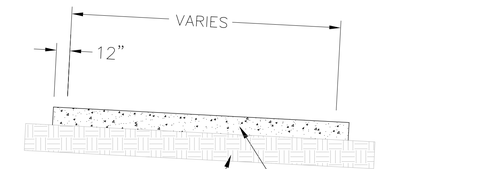



USE OF PAVEMENT SYMBOL IN HANDICAPPED PARKING SPACES IS OPTIONAL. WHEN USED THE SYMBOL SHALL BE 3 OR 5 FT. HIGH AND WHITE IN COLOR.

HANDICAP PAVEMENT SYMBOL

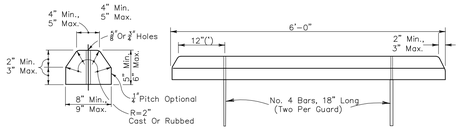
## HANDICAP RAMP & PARKING STALL DETAILS

N.T.S.



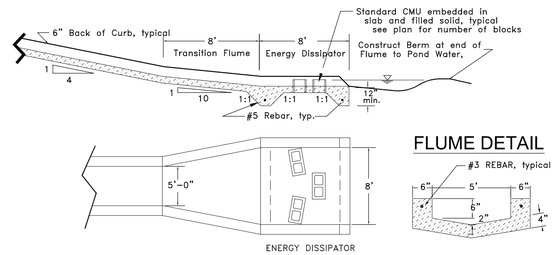

## CONCRETE PAVEMENT DETAIL

NOT TO SCALE




## CONCRETE BUMPER GUARD PER FDOT INDEX 300

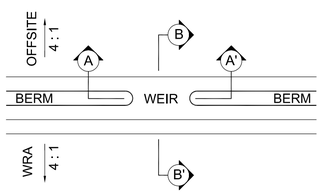
N.T.S.




## FLUME DETAIL

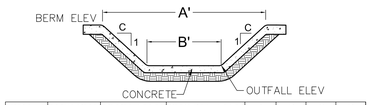
## CONCRETE FLUME W/ ENERGY DISSIPATOR DETAIL

N.T.S.




## TYPICAL WEIR DETAIL

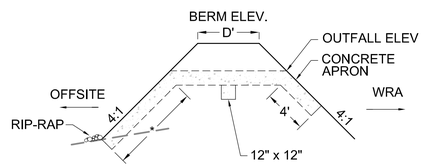
NOT TO SCALE




| WRA # | MATERIAL | BERM ELEV | OUTFALL ELEV | A | B | C | D |
|---|---|---|---|---|---|---|---|
| 1 | CONCRETE | 122.00 | 121.75 | 14' | 10' | 0' | 8' |

## SECTION A-A'

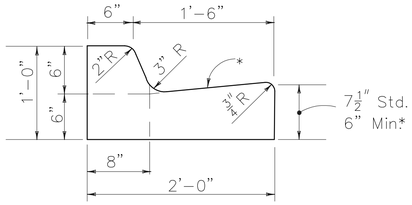
NOT TO SCALE




* EXTEND CONCRETE APRON TO NATURAL GROUND

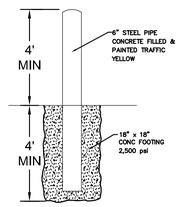
## SECTION B-B'

NOT TO SCALE




## TYPE "F" CURB DETAIL

FDOT INDEX 300




## BOLLARD DETAIL

N.T.S.

**GENERAL NOTES**

1. ALL MATERIALS, INSTALLATION, TESTING, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF LAKE COUNTY, FLORIDA AND THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND F.D.O.T. DESIGN STANDARDS, LATEST EDITION WITH THE EXCEPTION OF TRAFFIC MARKINGS.

2. ALL TRAFFIC STRIPING AND MARKINGS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF LAKE COUNTY, THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION F.D.O.T. DESIGN STANDARDS, LATEST EDITIONS. WHERE THE SPECIFICATIONS CONFLICT, THE MAXIMUM REQUIREMENTS OF EITHER SPECIFICATION SHALL APPLY, UNLESS OTHERWISE DIRECTED BY THE DIRECTOR OF ENGINEERING.

3. ALL WORK SHALL BE PERFORMED IN SUCH A MANNER THAT WILL SUCCESSFULLY ACCOMPLISH THE INTENDED DESIGN WITH MINIMAL IMPACT TO EXISTING CONDITIONS. ANY CONSTRUCTION ACTIVITY PERFORMED WITHOUT PRIOR WRITTEN APPROVAL FROM THE DIRECTOR OF ENGINEERING THAT IS DEEMED EXCESSIVELY DISRUPTIVE TO EXISTING CONDITIONS OF THE SURROUNDING AREA AND/OR SIGNIFICANTLY DEVIATES FROM THE LIMITS OF CONSTRUCTION AS SET FORTH BY THESE CONSTRUCTION PLANS SHALL BE CONSIDERED AS PART OF THE ORIGINAL WORK AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN TO RESTORE THE DISTURBED AREA(S).

4. CONTRACTOR TO FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

4. ALL PAVEMENT STRIPING TO BE LEAD AND SOLVENT FREE THERMOPLACTIC.

5. ALL SIGNAGE AND STRIPING TO BE IN ACCORDANCE WITH THE M.U.T.C.D., LATEST EDITION.

6. ALL SILT FENCE AND TURBIDITY BARRIER TO BE INSTALLED PRIOR TO CONSTRUCTION.

7. RELOCATION OF EXISTING UTILITIES TO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

8. ALL ACCESSIBLE ROUTES, SIDEWALKS, PARKING SPACES, RAMPS, AND DETECTABLE WARNINGS SHALL MEET CURRENT A.D.A. REQUIREMENTS.

**NPDES NOTES:**

THE PROJECT SHALL OBTAIN COVERAGE UNDER AN NPDES STORMWATER PERMIT. CONTRACTOR SHALL BECOME FAMILIAR WITH THE NPDES PERMIT REQUIREMENTS, DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND FILE A NOTICE OF INTENT (NOI) WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). INFORMATION REGARDING THE FDEP NPDES PROGRAM CAN BE OBTAINED AT:

WWW.DEP.STATE.FL.US/WATER/STORMWATER/NPDES/ OR BY CALLING THE FDEP NPDES STORMWATER SECTION AT (850) 92-9904.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FIRE STATION #90
LAKE COUNTY, FL

FIRE STATION #104
CLERMONT, FL

SITE PLAN

DETAILS & NOTES

| REV. # DATE | DRAWN BY: D.M.K. |
|---|---|
| | CHECKED BY: D.A.G. |
| 01-19-2015 | DRAWING #: 13011_02_10 |
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## GENERAL PROJECT DATA

FOR IDENTIFICATION OF CONTRACTUAL AGREEMENTS, THIS SET OF DRAWINGS IS DATED X X X. ANY REVISIONS THEREAFTER WILL BE NOTED AND DATED ON THE AFFECTED DRAWIING(S).

PRIOR TO THE COMMENCEMENT OF ANY WORK, A PRECONSTRUCTION MEETING WITH THE CITY OF CLERMONT IS REQUIRED. THE CITY OF CLERMONT SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF MAJOR PHASES OF CONSTRUCTION.

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLAN OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

## DRAINAGE SYSTEMS

THE CONTRACTOR SHALL PERFORM ALL WORK PERTAINING TO DRAINAGE INCLUDING EXCAVATION OF W.R.A. PRIOR TO THE COMMENCEMENT OF OTHER WORK INCLUDED IN THESE PLANS. THE DRAINAGE FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE COURSE OF THIS CONTRACT. THE CONTRACTOR SHALL INCLUDE FUNDS IN THE DRAINAGE COSTS OF THE CONTRACT TO OPERATE AND MAINTAIN THE DRAINAGE SYSTEMS DURING THE WORK PROCESS.

THE UTILITIES ARE THE PROPERTY OF THE FOLLOWING:

WATER
CITY OF CLERMONT
UTILITIES DEPARTMENT
685 WEST MONTROSE STREET
CLERMONT, FL 34711
(352) 241-7335

SEWER
CITY OF CLERMONT
UTILITIES DEPARTMENT
685 WEST MONTROSE STREET
CLERMONT, FL 34711
(352) 241-7335

TELEPHONE
EMBARQ
260 CITRUS TOWER BLVD.
CLERMONT, FL 34711
(800) 672-6242

POWER
PROGRESS ENERGY
P.O. BOX 120069
CLERMONT, FL 34712
(800) 432-4770

CABLE
BRIGHT HOUSE NETWORKS
1617 E HIGHWAY 50
CLERMONT, FL 34711
(352) 394-5541

TELEPHONE
AT&T
1-800-222-3000

POWER
SUMTER ELECTRIC
293 S. US HIGHWAY 301
SUMTERVILLE, FL 33585
(352) 357-5600

GAS
LAKE APOPKA NATURAL GAS DISTRICT
676 W. MONTROSE STREET
CLERMONT, FL 34711
(352) 394-3480
(800) 432-4770

## ASBUILTS

THE ENGINEER SHALL DELIVER ASBUILT DRAWING PLANS IN DWG FORMAT IN AUTOCAD FILES VERSION 2000 TO 2010. STANDARD TRANSFER MEDIA WILL BE ACCEPTED. THIS MEDIA INCLUDES CD OR DVD. ALL ASBUILT DATA SHALL BE PROVIDED BY A FLORIDA LICENSED SURVEYOR, SIGNED, SEALED AND DATED BY THE RESPONSIBLE PARTY. SEE INDIVIDUAL SECTIONS (STORM, WATER SYSTEM, ETC.) FOR ADDITIONAL ASBUILT REQUIREMENTS.

THE ENGINEER SHALL DELIVER ONE SCANNED SET OF APPROVED ASBUILT DRAWING PLANS. THE SCANNED SETS SHALL BE COMPLETE AND INCLUDE THE TITLE SHEET, PLAN/PROFILE SHEETS, CROSS-SECTIONS AND DETAILS. EACH INDIVIDUAL SHEET CONTAINED IN THE PRINTED SET OF THE DRAWINGS SHALL BE INCLUDED IN THE ELECTRONIC SUBMITTAL, WITH EACH SHEET BEING CONVERTED INTO AN INDIVIDUAL TIFF FORMAT. THE PLAN SHEETS SHALL BE SCANNED IN TIFF FORMAT AT 400 DPI RESOLUTION TO MAINTAIN LEGIBILITY OF EACH DRAWING. THEN, THE TIFF IMAGES SHALL BE EMBEDDED INTO A SINGLE PDF (ADOBE ACROBAT) FILE REPRESENTING THE COMPLETE PLAN SET. THESE DRAWINGS WILL ASSIST IN THE PROCESS OF PERFORMING QUALITY CONTROL AND QUALITY ASSURANCE ON THE ELECTRONIC SUBMITTAL SPECIFIED IN THIS DOCUMENT. THE DRAWINGS WILL BE REVIEWED FOR FORMAT AND COMPLETENESS. SPECIFICALLY, THE FOLLOWING REQUIREMENTS SHALL BE MET.

1. INCLUDE A LABEL ON THE MEDIA INDICATING PROJECT NAME AND NUMBER, CONSULTANT NAME, PROJECT MANAGER AND TELEPHONE NUMBER, TYPE OF SUBMITTAL (APPROVED CONSTRUCTION PLANS OR ASBUILT DRAWINGS), ONLY DRAWINGS RELEVANT TO THE PROJECT'S PHASE OF SUBMITTAL SHALL BE INCLUDED. FOR EXAMPLE, DO NOT INCLUDE "BID SET" DRAWINGS IN A "ASBUILT DRAWING" SUBMITTAL. ALSO, DO NOT INCLUDE DRAWINGS OR DOCUMENTS THAT WOULD NOT NORMALLY BE INCLUDED IN THE SET OF PRINTED DRAWINGS, EXCEPT FOR BASE DRAWINGS OR DRAWINGS TO BE EXTERNALLY REFERENCED.

2. RECORD DRAWING DATA TO BE UPLOADED WILL INCLUDE ONLY NEW CONSTRUCTION AND CARE WILL BE TAKEN TO EXCLUDE ANY "EXISTING" FACILITIES FROM THIS DATASET SO AS TO NOT DUPLICATE INFORMATION IN THE GIS SYSTEM. EXISTING DATA CAN BE INCLUDED IN THE DRAWING BUT SHOULD RESIDE ON SEPARATE LAYERS. IT IS RECOMMENDED THAT THE PREFIX "EX-" BE ADDED TO THE LAYERS OF ALL EXISTING DATA

3. THE FOLLOWING ARE FILE FORMAT AND LAYER NAME STANDARDS:

   a) A FOLDER SHALL BE CREATED WITH THE NAMED PROJECT AND PHASE NUMBER
   b) A FILE NAMED COVERSHEET.DWG
   c) FILE NAMED SITE_PLAN.DWG SHOWING ONLY THE FOLLOWING 5 LAYERS VISIBLE:
      -LAYER NAMED LOTS
      -LAYER NAMED LOT NUMBERS
      -LAYER NAMED ADDRESSES
      -LAYER NAMED ROW SHOWING ALL RIGHTS-OF-WAYS
      -LAYER NAMED EOP SHOWING ALL EDGE OF PAVEMENTS
   d) A FILE NAMED MASTERUTILITYPLAN.DWG WITH SITE_PLAN.DWG X-REF AND ONLY THE FOLLOWING 3 LAYERS VISIBLE:
      -LAYER NAMED WATERLINE SHOWING DIFFERENT PIPE SIZES, WATER METERS, AND HYDRANTS
      -LAYER NAMED REUSEWATER AND ALL APPROPRIATE FEATURES
      -LAYER NAMED SEWER AND ALL APPROPRIATE FEATURES
   e) FILE NAMED GRADING_DRAINAGE.DWG WITH SITE_PLAN.DWG X-REF AND ONLY THE FOLLOWING 2 LAYERS VISIBLE:
      -LAYER NAMED STORMWATER AND ALL APPROPRIATE FEATURES
      -LAYER NAMED SPOTELEV SHOWING ALL SPOT ELEVATIONS
      -ANY OTHER LAYERS PERTINENT TO THE GRADING AND DRAINAGE OF THE SITE
   f) IF APPLICABLE, A FILE NAMED OFF_SITE_UTILITIES.DWG
      INCLUDE ANY OTHER FILES PERTINENT TO THE PROJECT (SURVEY, DETAILS, X-REFS ETC.)

## PERMITS AND PERMIT REQUIREMENTS

THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF ALL REGULATORY AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS. A COPY OF THE PERMIT SHALL BE KEPT ON THE JOB AT ALL TIMES.

## LAYOUT AND CONTROL

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL THE WORK TO BE CONSTRUCTED. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPENCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

## QUALITY CONTROL TESTING REQUIREMENTS

ALLTESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR, CITY OF CLERMONT, AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS. CONTRACTOR SHALL PROVIDE TESTING SERVICES THROUGH A FLORIDA LICENSED GEOTECHNICAL ENGINEERING FIRM ACCEPTABLE TO THE OWNER AND THE ENGINEER. CONTRACTOR TO SUBMIT TESTING FIRM TO OWNER FOR APPROVAL PRIOR TO COMMENCING TESTING.

## SHOP DRAWINGS

SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

## EARTHWORK

## EARTHWORK QUANTITIES

THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.

## EROSION CONTROL

EROSION AND SILTRATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED. REFER TO WATER MANAGEMENT DISTRICT PERMIT FOR ADDITIONAL REQUIREMENTS FOR EROSION CONTROL AND SURFACE DRAINAGE. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITH SOD WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION. OTHER MATERIALS SHALL BE REVIEW AND APPROVED BY CITY.

## WETLAND PROTECTION

THE LIMITS OF THE ON-SITE WETLANDS HAVE BEEN PROVIDED TO THE CONTRACTOR ON THE CONSTRUCTION PLANS OR ON PERMIT MATERIALS. THE WETLANDS ARE TO BE PROTECTED FROM DISTURBANCE AT ALL TIMES. CONTRACTOR SHALL PROVIDE EROSION, SILTATION, AND DIVERSION MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN A COPY OF EACH PERMIT RELATING TO WETLANDS AND WATER MANAGEMENT AND ADHERE TO ALL PROVISIONS AND CONDITIONS THERETO.

## LIMITS OF DISTURBANCE

AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED. GRADING AND/OR CLEARING ON PROPERTIES OTHER THAN SHOWN ON THE APPROVED PLANS IS PROHIBITED.

## TREE REMOVAL

THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER WHEN ALL WORK IS LAID OUT (SURVEY STAKED), SO THAT A DETERMINATION MAY BE MADE OF SPECIFIC TREES TO BE REMOVED. NO TREES ON THE CONSTRUCTION PLANS AS BEING SAVED SHALL BE REMOVED WITHOUT PERMISSION FROM THE OWNER, ENGINEER AND THE CITY OF CLERMONT.

## CLEARING AND GRUBBING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.

NO BURN PERMITS (INCLUDING THOSE FOR LAND CLEARING) WILL BE ISSUED IN THE CITY OF CLERMONT WITHOUT PRIOR AUTHORIZATION FROM THE CITY MANAGER.

## MATERIAL STORAGE/DEBRIS REMOVAL

1) NO COMBUSTIBLE BUILDING MATERIALS MAY BE ACCUMULATED ON THE SITE AND NO CONSTRUCTION WORK INVOLVING COMBUSTIBLE MATERIALS MAY BEGIN UNTIL INSTALLATION OF ALL REQUIRED WATER MAINS AND FIRE HYDRANTS HAVE BEEN COMPLETED, DEP APPROVAL RECEIVED FOR THE WATER MAINS, AND THE HYDRANTS ARE IN OPERATION. CONSTRUCTION WORK INVOLVING NON-COMBUSTIBLE MATERIALS, SUCH AS CONCRETE, MASONARY AND STEEL MAY BEGIN PRIOR TO THE FIRE HYDRANTS BEING OPERATIONAL.

2) ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON-SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NONORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE. ALL CLAY ENCOUNTERED SHALL BE EXCAVATED OUT AND REPLACED WITH CLEAN GRANULAR FILL MATERIALS.

## FILL MATERIAL

ALL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGATATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

## COMPACTION

FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL FOR THE AFFECTED WORK.

## PAVEMENT AND/OR ROAD AND RIGHT-OF-WAY WORK

ALL PRESSURE PIPE UNDER ROADWAY SHALL BE DIP EXTENDING 5' FROM EDGE OF PAVEMENT.

## OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE ROADWAYS SHOWN ON THESE PLANS IS FDOT, LAKE COUNTY OR THE CITY OF CLERMONT, THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY.

## GENERAL DESIGN INTENT

ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS INGRADE, AND NO UNUSUALLY STEEP OR REVERSE CROSS SLOPES. APPROACHES TO INTERSECTIONS AND ENTRANCE AND EXIT GRADES TO INTERSECTIONS WILL HAVE TO BE STAKED IN THE FIELD AT DIFFERENT GRADES THAN THE CENTERLINE GRADES TO ACCOMPLISH THE PURPOSES OUTLINED. IN ADDITION, THE STANDARD CROWN WILL HAVE TO BE CHANGED IN ORDER TO DRAIN POSITIVELY IN THE AREA OF INTERSECTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE AND THE ENGINEER SHALL BE CONSULTED SO THAT HE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTION TO ACCOMPLISH THE INTENT OF THE PLANS.

## MATERIALS/CONSTRUCTION SPECIFICATIONS

MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 1991, OR LATEST EDITION.

## PAVEMENT SECTION REQUIREMENTS

CONSTRUCTION OF ROADWAYS SHALL BE 12" OF STABILIZED SUBBASE WITH A LIMEROCK BEARING PATIO OF (LBR) 40 COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180, 6" OF LIMEROCK BASE COURSE, (LBR) 100, COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180 AND 2" TYPE S-111 OF RECYCLED ASPHALTIC CONCRETE SURFACE COURSE WITH A MINIMUM STABILITY OF 1500 LBS. SUBGRADE PREPARATION AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND SOILS REPORT RECOMMENDATIONS.

## SIDEWALKS

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREA AS SHOWN ON THE CONSTRUCTION PLANS. THE 5' SIDEWALK SHALL BE CONSTRUCTED OF 4 INCHES OF CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. JOINTS SHALL BE EITHER TOOLED OR SAWCUT AT A DISTANCE OF 5' LENGTHS, HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

## PAVEMENT MARKINGS/SIGNAGE

PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED AS SHOWN ON THE CONSTRUCTION PLANS AND SHALL MEET THE REQUIREMENTS OF THE OWNER/OPERATOR. SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION). A 48-HOUR PAVEMENT CURING TIME WILL BE PROVIDED PRIOR TO APPLICATION OF THE PAVEMENT MARKINGS. REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 17352.

## TRAFFIC CONTROL

AN MOT PLAN SHALL BE SUBMITTED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK. A MINIMUM OF 2-WAY, ONE LANE TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION. ACCESS SHALL BE CONTINUOUSLY MAINTAINED FOR ALL PROPERTY OWNERS SURROUNDING THE WORK SITE AREA. LIGHTED WARNING DEVICES ARE TO BE OPERATIONAL PRIOR TO DUSK EACH NIGHT DURING CONSTRUCTION.

## CURBING

CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. CONCRETE FOR CURBS SHALL BE DEPARTMENT OF TRANSPORTATION CLASS "1" CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTER. CONSTRUCTION OF CURBS SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (1991) SECTION 520 AND DETAILS PROVIDED ON THE CONSTRUCTION PLANS.

## R/W RESTORATION

ALL AREAS WITHIN THE RIGHT-OF-WAYS SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL SWALES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMEROCK AND ROCKS AND SODDED AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS PRIOR TO FINAL INSPECTION. ALL GRASSING (SEED OR SOD) SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER/OPERATOR.

## SITE ACCESS

ALL ACCESS TO THE JOB SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS, OR BY THE CONSTRUCTION EASEMENT AS APPROVED BY THE CITY OF CLERMONT.

## POTABLE WATER/FIRE SYSTEMS

## OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE WATER SYSTEM SHOWN ON THESE PLANS IS CITY OF CLERMONT. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY, UNLESS OTHERWISE INDICATED ON PLANS.

## LANDSCAPING

PROVIDE MINIMUM 5' SEPARATION FROM UTILITIES AND TREES WITH INVASIVE ROOT SYSTEMS.

## PIPE MATERIALS

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL CITY INFRASTRUCTURE TO BE CONSTRUCTED. WATER SYSTEM SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL MEET CITY SPECIFICATIONS.

POLYVINYL CHLORIDE PLASTIC PIPE (PVC) 4" THROUGH 12" SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C900 (LATEST EDITION) AND SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI AND A DR (DIMENSION RATIO) OF 18. ALL PVC PIPE SHALL BEAR THE NSF LOGO FOR POTABLE WATER. JOINTS SHALL BE OF THE PUSH-ON TYPE AND COUPLINGS CONFORMING TO ASTM D3139, DR18 PIPE.

DUCTILE IRON PIPE (DIP) SHALL BE STANDARD PRESSURE CLASS 350 IN SIZES 4" THROUGH 12" AND CONFORM TO ANSI/AWWA C150/A21.50 (LATEST EDITION). ALL DUCTILE IRON PIPE SHALL HAVE A STANDARD THICKNESS OF CEMENT MORTAR LINING AS SPECIFIED IN ANSI/AWWA C104/A21.4 (LATEST EDITION). PIPE JOINTS SHALL BE OF THE PUSH-ON RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST EDITION).

ALL PRESSURE PIPE UNDER ROADWAY SHALL BE DIP EXTENDING 5' FROM EDGE OF PAVEMENT.

3" METALLIC LOCATOR TAPE WITH LOCATOR WIRE SHALL BE INSTALLED ON ALL WATER MAINS PER DETAIL.

## PIPE MATERIALS CONT.

PIPE SIZES GREATER THAN 12" BE SEPARATELY SPECIFIED ON THE PLANS; WITH THICKNESS CLASSES TO BE SHOWN BASED ON WORKING PRESSURES, PIPE DEPTH AND TRENCH CONDITIONS. FITTINGS FOR DUCTILE IRON PIPE AND PVC C-900 PIPE SHALL BE DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA C153/A21.10 (LATEST EDITION) AND SHALL BE CEMENT LINED IN CONFORMANCE WITH ANSI/AWWA C104/A21.4 (LATEST EDITION).

POLYETHYLENE WRAP USED FOR CORROSION PREVENTION ON DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASTM D1248. THE MINIMUM NOMINAL THICKNESS SHALL BE 0.008 IN. (8 MILS). INSTALLATION OF POLY WRAP SHALL BE IN ACCORDANCE WITH AWWA C105. TRANSMISSION MAIN SHALL BE DIP RATED FOR 250 PSI.

## VALVES

GATE VALVES SHALL BE RESILIENT SEAT AND SHALL CONFORM TO ANSI/AWWA C509.87 WITH HANDWHEEL OR WRENCH NUT, EXTENSION STEMS AND OTHER APPURTENANCES AS REQUIRED (OPERATION NUT TO BE WITHIN 3 FEET OF FINISH GRADE). MANUFACTURER'S CERTIFICATION OF THE VALVES COMPLIANCE WITH AWWA SPECIFICATION C509 AND TESTS LISTED THEREIN WILL BE REQUIRED. SEE CITY OF CLERMONT APPROVED PRODUCT LIST.

## POTABLE WATER AND REUSE VALVES

ANY VALVE USED IN A POTABLE WATER OR REUSE WATER APPLICATION THAT IS 4" OR LARGER MUST BE A RESILIANT SEAT AND CONFORM TO ALL AWWA SPECIFICATIONS.

## AIR RELEASE VALVES

AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATION AND METHOD OF INSTALLATION SHALL BE INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. SEE CITY OF CLERMONT APPROVED PRODUCTS LIST.

## VALVE BOXES

VALVE BOXES ON BURIED POTABLE WATER MAINS SHALL BE ADJUSTABLE, CAST IRON CONSTRUCTION, WITH MINIMUM INTERIOR DIAMETER OF 5" WITH COVERS CAST WITH THE INSCRIPTION IN LEGIBLE LETTERING ON TOP: WATER. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE, AND SHALL BE MANUFACTURED BY MUELLER COMPANY, MODEL 10364, OR APPROVED EQUAL. VALVE BOX PADS SHALL BE 24"x24"x4" THICK CONCRETE WITH #4 REINFORCING BARS. PAD TO BE SET AT FINISHED GRADE WITH RECESSED DETECTOR WIRE CONDUIT PORT PER DETAIL. REUSE MAINS TO HAVE SQUARE TOP VALVE BOXES.

## WATER SERVICES

UNLESS OTHERWISE NOTED IN THE PLANS, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS. CONTRACTOR SHALL CONSTRUCT WATER SERVICE THROUGH THE CURB STOP AND SET METER BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET. POLYETHYLENE (PE) PRESSURE PIPE FOR WATER SERVICES 1/2" THROUGH 3" SHALL CONFORM TO AWWA C901.88, MIN. 200 PSI, CTS 5100 (DR-9) ASTM D-2737, 200 PSI. THE SERVICE SHALL BE COMPLETE THROUGH THE CURB STOP AS SHOWN ON THE DETAIL SHEET AND SHALL BE OF THE TYPE REQUIRED FOR COMPATIBILITY WITH THE SERVICE LINES SPECIFIED, UTILITY COMPANY SHALL PROVIDE AND INSTALL IRRIGATION METERS. WHERE RECLAIM SERVICE IS NOT PROVIDED, CONTRACTOR SHALL CONSTRUCT IRRIGATION SERVICE THROUGH THE CURB STOP AND SET NEW BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET. SEE CITY OF CLERMONT APPROVED PRODUCT LIST.

## WATER SERVICES 2.5" AND LARGER

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING A NEPTUNE R450 METER WITH E-CODER REGISTER, 12795-220S1227 NEPTUNE R450 WALL MIU (CLERMONT SPECIAL) AND 12596-002 NEPTUNE WALL MIU ADAPTOR F/PIT STYLE REGISTER. THE ASSEMBLY SHALL BE ABOVE GROUND STYLE WITH BYPASS SET UP FOR METER TESTING. A STRAINER SHALL BE INSTALLED PRIOR TO THE METER AND AND SHALL BE FROM THE SAME MANUFACTURER AS THE WATER METER. INCLUDE SPOOL PIECES 5X THE DIAMETER UPSTREAM AND 10X THE DIAMETER DOWNSTREAM MINIMUM LENGTH. ISOLATION VALVES SHALL BE INSTALLED PRIOR TO THE METER AND ANOTHER ONE PAST THE METER TEST PORT AND BEFORE THE THE DOWNSTREAM BYPASS CONNECTION. BYPASS PIPING SHALL HAVE A LOCKABLE ISOLATION VALVE UNLESS IT IS UNDERGROUND.

## MATERIALS AS REQUIRED BY THE CITY OF CLERMONT

THE CONTRACTOR SHALL CUT A "W" IN THE CURB TOP AT EACH WATER SERVICE AND A "V" AT ALL VALVE LOCATIONS. CUT W'S AND V'S SHALL BE HIGHLIGHTED WITH BLUE PAINT. SEE WATER SYSTEM DETAILS FOR OTHER SERVICE LOCATION AND MARKING REQUIREMENTS.

## PIPE INSTALLATION

PIPE INSTALLATION OF PVC WATER MAIN SHALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON PIPE WATER MAIN SHALL BE IN CONFORMANCE WITH AWWA C600.87.

COMPACTED BACKFILL SHALL BE TO 98% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12" MAXIMUM LIFT THICKNESS. OTHER COMPACTION OF BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12" MAXIMUM LIFT THICKNESS. SEE PIPE TRENCHING DETAILS.

MINIMUM COVER OVER ALL PIPE SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE. SEE PLAN AND PROFILE SHEETS FOR REQUIRED DEPTH.

WATER MAINS ARE TO BE INSTALLED SO AS TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 12" OR A MINIMUM HORIZONTAL CLEARANCE OF 10' FROM ALL OTHER UTILITIES. IF THE MINIMUM CLEARANCE CAN NOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE SPECIFIED 10 FEET EITHER SIDE OF THE CROSSING. HORIZONTAL AND VERTICAL MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN WATER MAIN AND ALL OTHER UTILITIES SHALL COMPLY WITH 62-555.314 (1), (2), (3), (4) AND (5) FAC.

ALL WATER MAINS SHALL BE INSTALLED WITH RESTRAINED JOINT FITTINGS. NO CONCRETE THRUST BLOCKS TO BE USED.

ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDRANTS, VALVES, ETC. SHALL BE PROVIDED WITH MEGALUG PIPE RESTRAINTS. FOR RESTRAINT CONSTRUCTION SPECIFICATIONS, REFER TO THE WATER SYSTEM DETAILS.

ALL VALVES TO BE RESTRAINED AS DEAD ENDS IN BOTH DIRECTIONS.

GENERAL NOTES AND DETAILS REVISED
9-19-2013

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SITE PLAN

CITY OF CLERMONT
GENERAL NOTES

| REV. # DATE | DRAWN BY: D.M.K. |
|---|---|
| 01-26-2015 | CHECKED BY: D.A.G. |
| 01-19-2015 | DRAWING #: 13011_02_10 |
| 12-18-2014 | PROJECT #: 13011GEN |
| DATE: 08-27-2014 | SCALE: AS NOTED |

## PIPE IDENTIFICATION

3" METALLIC LOCATOR TAPE SHALL BE BURIED IN THE WATER MAIN TRENCH 18" DIRECTLY ABOVE THE WATER MAIN. A CONTINUOUS COPPER DETECTOR WIRE SHALL BE ATTACHED AS SHOWN ON THE WATER DETAIL SHEET. WIRE CONNECTIONS (SPLICES) SHALL BE DONE WITH WIRE NUT AND GREASE FILLED PROTECTIVE CAP.

ALL PIPE AND PIPE FITTINGS SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUB- PARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVE GROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LINE UNDERGROUND PIPE.) RHINO TRIVIEW FLEXMARKING POST SHALL BE PLACED ON ALL TRANSMISSION MAINS AT 500 FEET.

## DISINFECTION AND TESTING

ALL PIPE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651.86.

PVC WATER MAINS SHALL BE INSTALLED; PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA C605 AND DUCTILE IRON WATER MAINS IN ACCORDANCE WITH AWWA C600, [62-555.320(21)(B) 1 AND 62-555.330, F.A.C]. ALL INSTALLATION, TESTING AND FIELD PROCEDURES MUST BE PROVIDED AND MUST CONFORM TO THE APPLICABLE AWWA STANDARDS.

THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE ALL NECESSARY TEST PUMPING EQUIPMENT, WATER, WATER METERS, PRESSURE GAUGES AND OTHER EQUIPMENT, MATERIAL AND FACILITIES REQUIRED FOR ALL HYDROSTATIC AND LEAKAGE TESTING. CONTRACTOR SHALL CONTACT THE ENGINEER, OWNER/OPERATOR AND CITY IN WRITTEN FORM, FORTY EIGHT (48) HOURS IN ADVANCE OF PROPOSED TESTING. THE CONTRACTOR SHALL PERFORM SATISFACTORY PRETESTING PRIOR TO NOTIFICATION.

THE WATER SYSTEM SHALL BE SOAK TESTED 24 HOURS @150 PSI AND TESTED FOR LEAKAGE AT 150 PSI FOR TWO (2) HOURS, WITH ALLOWABLE LEAKAGE IN ACCORDANCE WITH ABOVE STANDARDS.

CONTRACTOR SHALL OBTAIN A COPY OF THE FDEP WATER SYSTEM PERMIT AND PULL BACTERIOLOGICAL TEST SAMPLES FROM THE SAMPLE POINTS SPECIFIED IN THAT PERMIT. CONTINUITY TEST SHALL BE PERFORMED ON WIRE BY CONTRACTOR.

## CONNECTIONS TO EXISTING WATER MAINS

PRIOR TO THE CONNECTION TO ANY EXISTING MAIN, THE PROPOSED WATER MAIN SHALL BE DISINFECTED, HAVE ENGINEER APPROVED PRESSURE TESTING AND HAVE FDEP CLEARANCE. REFER TO FDEP PERMIT FOR ANY ADDITIONAL REQUIREMENTS.

## ASBUILT DRAWINGS

THE CONTRACTOR SHALL PROVIDE VERTICAL AND HORIZONTAL "ASBUILT" INFORMATION RELATIVE TO ALL CONSTRUCTED UTILITIES AND STRUCTURES. THREE SETS SHALL BE PROVIDED FOR REVIEW. ONCE APPROVED BY THE UTILITY, ONE REPRODUCIBLE SET SHALL BE PROVIDED.

AS-BUILT INFORMATION FOR THE WATER SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

1. LOCATION OF ALL VALVES, FITTINGS, HYDRANTS AND SERVICES – HORIZONTAL AND VERTICAL.
2. LOCATION OF THE WATER MAIN TIED WITH COORDINATES FOR THE SUBDIVISION.
3. CERTIFICATION AS TO THE SYSTEM MEETING THE MINIMUM COVER REQUIREMENTS.
4. HORIZONTAL AND VERTICAL DATA FOR ANY CONSTRUCTION WHICH DEVIATES FROM THE APPROVED ENGINEERING PLANS.
5. UTILITY LOCATES ON SYSTEMS INSTALLED UNDER THIS CONTRACT SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER UNTIL ASBUILT DRAWINGS ARE REVIEWED AND APPROVED BY THE UTILITY.

## SANITARY SEWER NOTES

1. ALL PRESSURE PIPE UNDER ROADWAY SHALL BE DIP EXTENDING 5' FROM EDGE OF PAVEMENT.

## MAINS AND MANHOLES

1. ALL GRAVITY SANITARY SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE CONSTRUCTED OF SDR26 PVC PIPE MEETING ASTM 3034, AND SHALL HAVE A MINIMUM COVER OF THREE (3) FEET.
2. WHERE REQUIRED, MAINS SHALL BE CLASS 150 DUCTILE IRON PIPE (DIP) MEETING AWWA C150 AND C151. MAINS SHALL BE 60 MIL EPOXY COATED WITH POLYETHYLENE WRAP CONFORMING TO AWWA C105.
3. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL.
4. JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI-B-7.
5. ALL SANITARY MANHOLES SHALL BE PRECAST CONCRETE WITH A MINIMUM WALL THICKNESS OF FIVE (5) INCHES FOR INSIDE DIAMETER OF FOUR (4) FEET.
6. MANHOLES SHALL MEET ASTM C-478. RING AND COVER SHALL BE TRAFFIC BEARING H-20 CLASS 30 MEETING ASTM A-48.
7. INTERIOR AND EXTERIOR WALLS OF ALL MANHOLES SHALL HAVE A MINIMUM OF TWO (2) 8 MIL COATS OF AN APPROVED PROTECTIVE COAL TAR EPOXY.
8. ALL MAINS NOT LOCATED UNDER PAVEMENT SHALL BE MARKED BY A 3" METALLIC LOCATOR TAPE AND TRACER WIRE 18" ABOVE THE CENTERLINE OF PIPE. DROP MANHOLE IF INVERT DIFFERENCE IS GREATER THAN OR EQUAL TO TWO (2) FEET. 3" METALLIC LOCATOR TAPE SHALL BE BURIED IN THE WATER MAIN TRENCH 18" DIRECTLY ABOVE THE WATER MAIN. A CONTINUOUS COPPER DETECTOR WIRE SHALL BE ATTACHED AS SHOWN ON THE WATER DETAIL SHEET.
9. LINING IS REQUIRED OF ALL MANHOLES WITH AN INCOMING SLOPE GREATER THAN 5%. ANY MANHOLE WITH FORCE MAIN TIE IN MUST BE LINED. SEE CITY OF CLERMONT APPROVED PRODUCT LIST.
10. NO DROP SHALL BE GREATER THAN 15 FEET.

## LATERALS

1. ALL SERVICE LATERALS AND FITTINGS SHALL BE A MINIMUM OF 6" IN DIAMETER.
2. ALL LATERALS SHALL TERMINATE WITH A 4" CLEAN-OUT AT THE PROPERTY LINE, AND AT A DEPTH TO FINAL GRADE OF 3 FEET. SEE DETAILS FOR LOCATION.
3. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2"x2"x2" ABOVE GRADE WOODEN STAKE OR APPROVED MARKER AND CURB MARKED WITH A 'S'.

## FORCEMAINS

1. FORCEMAINS SHALL BE CLASS 350 EPOXY 401 LINED DIP. DIP PIPE SHALL HAVE INTEGRAL BELL PUSH ON TYPE JOINTS CONFORMING TO ASTM D3139.
2. ALL FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON WITH 250 PSI MINIMUM PRESSURE RATING. SUITABLE COUPLINGS COMPLYING WITH ASTM SPECIFICATIONS ARE REQUIRED FOR JOINING DISSIMILAR MATERIALS.
3. 3" METALLIC LOCATOR TAPE SHALL BE BURIED IN THE WATER MAIN TRENCH 18" DIRECTLY ABOVE THE WATER MAIN. A CONTINUOUS COPPER DETECTOR WIRE SHALL BE ATTACHED AS SHOWN ON THE WATER DETAIL SHEET.
4. ALL MAINS SHALL HAVE A MINIMUM COVER OF THREE (3) FEET.
5. ALL CONNECTIONS TO EXISTING SEWER FORCEMAINS SHALL BE ACCOMPLISHED WITH A WET TAP AND RESTRAINTS.
6. PROVIDE JOINT RESTRAINT AS SHOWN ON THE WATER DETAIL SHEET.
7. AIR RELEASE AND VACUUM VALVE PRODUCTS SHALL ADHERE TO CITY OF CLERMONT APPROVED PRODUCT LIST.

## TESTING

1. SEWAGE COLLECTION SYSTEM
   - A. ALL GRAVITY SEWER MAINS REQUIRE LOW PRESSURE AIR TESTING IN ACCORDANCE WITH THE LATEST UNI-BELL STANDARD FOR LOW PRESSURE AIR TESTS. AIR TESTS, AS A MINIMUM, SHALL CONFORM TO THE TEST PROCEEDURES DESRIBED IN ASTM SPECIFICATIONS, ASTM F1417 FOR PLASTIC PIPE.
   - B. ALL SEWER MAINS AND LATERALS SHALL BE VIDEO INSPECTED BY A CITY APPROVED VENDOR.
   - C. ALL MANHOLES SHALL BE INSPECTED FOR INFILTRATION, ALIGNMENT, FLOW CHANNEL CONSTRUCTION AND COAL TAR EPOXY PAINT THROUGHOUT.
   - D. HYDRO-STATIC TESTS CONSISTING OF A HYDROSTATIC PRESSURE TEST AND HYDROSTATIC LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY INSTALLED SEWER FORCE MAIN SYSTEM PRESSURE PIPES AND APPURTENANCES IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE. THE PRESSURE SHALL BE 150 PSI FOR TWO (2) HOURS.
   - E. DEFLECTION TESTS ARE REQUIRED FOR ALL FLEXIBLE PIPE. TESTS SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

## TEMPORARY JUMPER CONNECTION NOTES

A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS. THE DETAIL PROVIDED IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR TAKING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTING OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE HAS BEEN OBTAINED FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED BY THE CITY OF CLERMONT. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM LEVEL OF DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED AND THE LINES ARE PLACED INTO SERVICE.

ADEQUATE RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED.

PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THE TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF AWWA C651-92.

FLUSHING OF ALL WATER MAINS SAHLL BE DONE THROUGH THE TIE-IN VALVE UNDER CONTROLLED CONDITIONS BY THE CITY ONLY. FULL BORE FLUSH IS REQUIRED. THE FOLLOWING PROCEEDURES SHALL BE FOLLOWED:

A. THE TIE-IN VALVES SHALL BE OPERATED ONLY BY THE CITY AND PRESSURE TESTED IN THE PRESENCE OF THE CITY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO TIE-IN. VALVES WHICH ARE NOT WATERTIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.

B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN, FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT AND FOR MAINTAINING CHLORINE RESIDUALS IN THE MAINS.

1. FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
2. ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO THE CITY OPENING THE TIE-IN VALVE.
3. PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT. THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.
4. TIE-IN VALVE SHALL BE OPENED BY THE CITY A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 PSI.

C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL THE FLUSHING BEGINS.

D. THE TIE-IN VALVE SHALL BE OPENED ONLY BY THE CITY FOR FLUSHING OF THE NEW MAIN. THE PROCEEDURE SHALL BE DONE BY THE CITY AND OBSERVED BY THE ENGINEER.

E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSE POSITION BY THE CITY. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE RPZ BACK FLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION, AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A CERTIFIED BACK FLOW PREVENTION TECHNICIAN AS APPROVED BY THE CITY OF CLERMONT CROSS-CONNECTION CONTROL PROGRAM. A CERTIFICATE IS REQUIRED BY THE CITY.

EXCEPT AS REQUIRED TO FLUSH LINES TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSE POSITION BY THE CITY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER AGENCIES. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS. THERE BE NO LEAKAGE.

ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACK FLOW PREVENTION DEVICE, FITTINGS, VALVES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER METERS SHALL BE PAID FOR AT THE CITY HALL AND SHALL BE DELIVERED TO THE JOB SITE BY THE UTILITIES DEPARTMENT.

## FIRE HYDRANTS

FIRE HYDRANTS SHALL CONFORM TO THE LATEST EDITION OF AWWA C502.85 AND SHALL BE FURNISHED COMPLETE WITH WRENCH AND OTHER APPURTENANCES. MANUFACTURER'S CERTIFICATION OF COMPLIANCE WITH AWWA C502 AND TESTS LISTED THEREIN WILL BE REQUIRED. ALL HYDRANTS SHALL BE BREAKAWAY TYPE, WITH THE BREAKAWAY SECTION LOCATED SLIGHTLY ABOVE THE FINISH GROUND LINE. HYDRANTS SHALL CONTAIN TWO, TWO AND ONE-HALF INCH (2-1/2") HOSE CONNECTIONS, AND ONE, FOUR AND ONE-HALF INCH (4-1/2") STEAMER CONNECTION WITH NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS, FIVE AND ONE-QUARTER INCH (5-1/4") VALVE OPENING, SIX INCH (6") DIAMETER MECHANICAL JOINT INLET, ONE AND ONE-HALF INCH (1-1/2") PENTAGON OPERATING NUT. SHALL OPEN COUNTERCLOCKWISE. HYDRANT MUST BE PAINTED AT FACTORY BY THE MANUFACTURER AND SHALL BE PAINTED IN CONFORMANCE WITH CITY OF CLERMONT REQUIREMENTS (COLORS BASED ON DELIVERED FIRE FLOW). HYDRANTS SHALL BE MUELLER CENTRON (TRAFFIC MODEL A-423) NO SUBSTITUTE. FIRE HYDRANTS TO BE THE BREAK AWAY TYPE WITH A CAST IRON DUCTILE IRON MECHANICAL JOINT HYDRANT TEE, WITH RESILIENT SEAT AND MECHANICAL JOINT GATE VALVE.

## FIRE HYDRANTS CONT.

1. BLUE PAVEMENT REFLECTORS SHALL BE PLACED IN THE CENTERLINE OF THE DRIVING LANE CLOSEST TO AND DIRECTLY IN FRONT OF EACH FIRE HYDRANT.
2. A POST-CONSTRUCTION FIRE FLOW TEST SHALL BE CONDUCTED. HYDRANTS SHALL DELIVER THE REQUIRED GPM PER THE CITY OF CLERMONT LAND DEVELOPMENT REGULATIONS WITH A RESIDUAL PRESSURE OF 20 PSI. CONTRACTOR SHALL NOTIFY CITY OF CLERMONT ENGINEERING DEPARTMENT WHEN HYDRANTS ARE READY TO BE FLOW TESTED. FOR FIRE HYDRANTS LOCATED WITHIN THE CITY OF CLERMONT, CONNECTED TO THE CITY OF CLERMONT'S WATER SYSTEM, AND/OR LOCATED WITHIN CLERMONT FIRE DEPARTMENT'S PROTECTION AREA, THIS TEST SHALL BE CONDUCTED BY CITY OF CLERMONT PERSONNEL. THIS TEST SHALL BE PROVIDED BY THE CONTRACTOR FOR LOCATIONS NOT INCLUDED ABOVE. THIS TEST MAY BE WITNESSED BY THE OWNER/OPERATOR IF REQUESTED AT TIME OF NOTIFICATION THAT HYDRANTS ARE READY FOR FLOW TEST.
3. IF A PERMIT FOR THE WATER SYSTEM IS REQUIRED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), THE SYSTEM SHALL BE ACCEPTED AND APPROVED BY DEP PRIOR TO BEING PRESSURIZED OFF OF THE CITY SYSTEM AND PRIOR TO ANY FLOW TESTS BEING CONDUCTED.
4. FIRE HYDRANTS AND FIRE PROTECTION APPLIANCES SHALL BE KEPT ACCESSIBLE TO THE FIRE DEPARTMENT AT ALL TIMES. THE FOLLOWING CLEARANCES SHALL BE MAINTAINED FOR ALL FIRE HYDRANTS AND FIRE PROTECTION APPLIANCES. CLEARANCE OF SEVEN AND ONE-HALF FEET (7'-6") IN FRONT OF AND TO THE SIDES OF A FIRE HYDRANT, WITH A FOUR FOOT (4') CLEARANCE TO THE REAR OF THE HYDRANT. CLEARANCES OF SEVEN AND ONE-HALF FEET (7'-6") IN FRONT OF AND TO THE SIDES OF THE APPLIANCES. NO PERSON SHALL PLACE OR KEEP ANY POST, FENCE, VEHICLE, GROWTH, VEGETATION, TRASH OR STORAGE OF OTHER MATERIALS THAT WOULD OBSTRUCT A FIRE HYDRANT OR FIRE PROTECTION APPLIANCE AND HINDER OR PREVENT ITS IMMEDIATE USE BY FIRE DEPARTMENT PERSONNEL. SUCH FIRE HYDRANT OR FIRE PROTECTION APPLIANCE SHALL BE KEPT READILY VISIBLE AT ALL TIMES.
5. FIRE HYDRANTS SHALL NOT BE LOCATED CLOSER THAN THREE (3) FEET TO OR MORE THAN TWENTY (20) FEET FROM THE EDGE OF A STREET, DRIVE OR OTHER ACCESSWAY. UNLESS OTHERWISE REQUESTED BY THE FIRE OFFICIAL, THE 4-1/2" CONNECTION SHALL FACE THE NEAREST ROADWAY, OR IF LOCATED WITHIN A COMPLEX PARKING AREA, SHALL FACE THE NEAREST TRAFFIC WAY. NO HYDRANT SHALL BE INSTALLED WHERE PEDESTRIAN OR VEHICULAR TRAFFIC WOULD INTERFERE WITH THE USE OF THE HYDRANT. THE STANDARD FIRE HYDRANT APPROVED FOR USE IN THE CITY IS MUELLER MODEL A-423. THE CITY'S STANDARD FIRE HYDRANT DETAIL AND NOTES ARE AVAILABLE FROM THE CITY ENGINEER'S OFFICE AND MUST BE INCLUDED IN THE SITE PLANS. ALL FIRE HYDRANTS AND MAINS, INCLUDING THOSE PRIVATELY OWNED, THAT ARE CONNECTED TO THE CITY'S POTABLE WATER SYSTEM, SHALL CONFORM TO CITY STANDARDS.
6. A MINIMUM NUMBER OF FIRE HYDRANTS SHALL BE PROVIDED AND/OR AVAILABLE TO PROVIDE EQUAL TO OR GREATER THAN THE NEEDED FIRE FLOW FOR ALL BUILDINGS ON THE SITE BASED ON THE FOLLOWING CREDITS: HYDRANT(S) WITHIN 300 FEET OF THE BUILDING, 1,000 GPM CREDIT; HYDRANT(S) 301 TO 600 FEET, 670 GPM CREDIT; HYDRANT(S) 601 TO 1,000 FEET, 250 GPM CREDIT.
7. FIRE HYDRANTS THAT HAVE NOT BEEN TESTED AND PLACED INTO SERVICE MUST BE CLEARLY MARKED AS 'OUT OF SERVICE' USING INDUSTRY ACCEPTED METHODS (BAGGING, TAGGING, ETC).

## CONNECTIONS TO CITY WATER MAINS

ALL DOUBLE DETECTOR CHECK VALVE ASSEMBLIES (DDCV) INSTALLED TO ISOLATE A PRIVATE FIRE SYSTEM SUPPLYING FIRE HYDRANTS FROM THE CITY'S POTABLE WATER SYSTEM SHALL HAVE TAMPER SWITCH DEVICES INSTALLED ON THE DDCV ASSEMBLY VALVES WHENEVER ANY AUTOMATIC FIRE SPRINKLER SYSTEM IS INSTALLED BEYOND THE DDCV. THESE TAMPER SWITCHES SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM FOR ALL INDIVIDUAL BUILDINGS PROTECTED BY A FIRE SPRINKLER SYSTEM.

## FIRE DEPARTMENT CONNECTIONS

ANY FIRE DEPARTMENT CONNECTION SIAMESE (FDC) FOR FIRE SPRINKLER OR STANDPIPE SYSTEMS MUST BE WITHIN 100 FEET OF A FIRE HYDRANT. THE FDC MAY BE INSTALLED DIRECTLY ON THE DOUBLE DETECTOR CHECK VALVE BACK FLOW PREVENTOR AS LONG AS THE REQUIREMENT TO BE WITHIN 100 FEET OF A FIRE HYDRANT IS COMPLIED WITH. FIRE DEPARTMENT CONNECTIONS SHALL BE IDENTIFIED BY A SIGN THAT STATES, "NO PARKING FIRE DEPARTMENT CONNECTION" AND SHALL BE DESIGNED IN ACCORDANCE WITH FDOT STANDARDS FOR INFORMATION SIGNAGE. THE LOCATION OF ANY FDC MUST BE SHOWN ON THE SITE PLANS UTILITY SHEET.

## DEDICATED FIRE MAINS

1. THE "POINT OF SERVICE" FOR ANY FIRE MAIN MUST BE CALLED OUT ON THE UTILITY SHEET OF THE SITE PLANS. THIS IS THE POINT WHERE A WATER LINE BECOMES DEDICATED TO ONLY FIRE PROTECTION, SUCH AS SUPPLYING ONLY A FIRE HYDRANT OR FIRE SPRINKLER SYSTEM, AND THERE IS NO POTABLE WATER SUPPLY COMING OFF OF THE WATER LINE BEYOND THIS POINT.
2. LABEL DEDICATED FIRE MAINS AT "FL" ON THE SUBMITTED PLANS.
3. FIRE MAINS WILL BE SEPARATELY PERMITTED AND INSPECTED BY THE CITY FIRE DEPARTMENT.

## FIRE DEPARTMENT ACCESS

FIRE DEPARTMENT ACCESS ROADS SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH THE FLORIDA FIRE PREVENTION CODE AND RULES ESTABLISHED BY THE CITY OF CLERMONT FOR EVERY FACILITY, BUILDING, OR PORTION OF A BUILDING HEREAFTER CONSTRUCTED OR RELOCATED. A FIRE DEPARTMENT ACCESS ROAD SHALL EXTEND TO WITHIN 50 FEET (15 m) OF AN EXTERIOR DOOR PROVIDING ACCESS TO THE INTERIOR OF THE BUILDING. FIRE DEPARTMENT ACCESS ROADS SHALL BE PROVIDED SUCH THAT IN ANY PORTION OF THE FACILITY OR ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY OF A BUILDING IS LOCATED NOT MORE THAN 150 FEET (46 m) FROM FIRE DEPARTMENT ACCESS ROADS AS MEASURED BY A ROUTE APPROVED BY THE LOCAL FIRE OFFICIAL AROUND THE EXTERIOR OF THE BUILDING OR FACILITY (THE DISTANCE SHALL BE PERMITTED TO BE INCREASED TO 450 FEET WHEN BUILDINGS ARE PROTECTED WITH AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM THAT IS INSTALLED IN ACCORDANCE WITH NFPA STANDARDS).

FIRE DEPARTMENT ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET (6.1 m),

AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET 6 INCHES (4.1m), SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS (MINIMUM 32 TONS), AND SHALL BE PROVIDED WITH A SURFACE SUITABLE FOR ALL-WEATHER DRIVING CAPABILITIES. THE TURNING RADIUS OF A FIRE DEPARTMENT ACCESS ROAD SHALL BE AS APPROVED BY THE AHJ. DEAD-END FIRE DEPARTMENT ACCESS ROADS IN EXCESS OF 150 FEET (46 m) IN LENGTH SHALL BE PROVIDED WITH APPROVED PROVISIONS FOR THE TURNING AROUND OF FIRE APPARATUS. WHEN A BRIDGE IS REQUIRES TO BE USED AS PART OF FIRE DEPARTMENT ACCESS ROAD, IT SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH NATIONALLY RECOGNIZED STANDARDS. THE BRIDGE SHALL BE DESIGNED FOR A LIVE LOAD SUFFICIENT TO CARRY THE IMPOSED LOADS OF FIRE APPARATUS (MINIMUM 32 TONS). THE ANGLE OF APPROACH AND DEPARTURE FOR ANY MEANS OF FIRE DEPARTMENT ACCESS SHALL NOT EXCEED 1 FOOT DROP IN 20 FEET (0.3 m DROP IN 6 m), AND THE DESIGN LIMITATIONS OF THE FIRE APPARATUS OF THE FIRE DEPARTMENT SHALL BE SUBJECT TO APPROVAL BY THE AHJ. THE LOAD RATING OF FIRE DEPARTMENT ACCESS ROADS AND BRIDGES SERVING DETACHED ONE OR TWO-FAMILY OCCUPANSIES ONLY MAY BE DECREASED UPON APPROVAL BY THE LOCAL FIRE OFFICIAL.

THE REQUIRED WIDTH OF A FIRE DEPARTMENT ACCESS ROAD SHALL NOT BE OBSTRUCTED IN ANY MANNER, INCLUDING BY THE PARKING OF VEHICLES. MINIMUM REQUIRED WIDTHS AND CLEARANCES SHALL BE MAINTAINED AT ALL TIMES. ENTRANCES TO ROADS, TRAILS, OR OTHER ACCESSWAYS THAT HAVE BEEN CLOSED WITH GATES AND BARRIERS SHALL NOT BE OBSTRUCTED BY PARKED VEHICLES. FIRE LANE MARKINGS MUST BE INSTALLED IN ANY LOCATIONS WHERE VEHICLES MAY PARK AND BLOCK TRAFFIC WAYS OR FREE AND CLEAR ACCESS FOR FIRE AND EMERGENCY APPARATUS.

FIRE LANE MARKINGS ON THE PAVEMENT MUST BE IN DOT YELLOW OR RED AND INCLUDE A CROSSHATCH AREA THAT EXTENDS A MINIMUM OF THREE FEET OUT FROM THE CURB. ANY CURBS MUST ALSO BE PAINTED DOT YELLOW OR RED. MARKED TRAFFIC SURFACES MUST HAVE THE WORDS, FIRE LANE – NO PARKING, PAINTED ON THE SURFACE. THIS WORDING MUST REPEAT THE ENTIRE LENGTH OF THE FIRE LANE, AND BE SPACED NO MORE THAN 50 FEET APART. WORDING ON PAVED SURFACES MUST BE A MINIMUM OF 10" TALL. ANY REQUIRED FIRE LANES SHALL BE MARKED WITH SIGNS WITH THE WORDING, "NO PARKING FIRE LANE BY ORDER OF THE FIRE DEPARTMENT." SUCH SIGNS SHALL BE 12 INCHES BY 18 INCHES WITH A WHITE BACKGROUND AND RED LETTERS AND SHALL BE A MAXIMUM OF 7 FEET IN HEIGHT FROM THE ROADWAY TO THE BOTTOM PART OF THE SIGN. THE SIGNS SHALL BE WITHIN SIGHT OF THE TRAFFIC FLOW AND BE A MAXIMUM OF 50 FEET APART.

A 20' x 20' CROSS-HATCH AREA MUST BE INDICATED ON THE PAVEMENT IN FRONT OF AND CENTERED ON HYDRANTS ANY FIRE DEPARTMENT CONNECTIONS FOR FIRE SPRINKLER OR STANDPIPE SYSTEMS THAT ARE LOCATED ON BUILDINGS OR IN PARKING LOTS WHERE VEHICLES MAY PARK AND BLOCK CLEAR ACCESS TO THE CONNECTION. THE CROSS-HATCH AREA MUST INCLUDE WORDING AS SPECIFIED ABOVE. A SIGN INDICATING "NO PARKING FIRE DEPARTMENT CONNECTION" MUST BE INSTALLED IN THIS AREA.

THE CURB MUST BE PAINTED DOT YELLOW OR RED, FOR A LENGTH OF 30 FEET CENTERED ON ANY FIRE OR FIRE DEPARTMENT SIAMESE CONNECTIONS THAT ARE INSTALLED ALONG A PARKING LOT, DRIVE OR STREET TO PREVENT VEHICLES FROM PARKING WITHIN 15 FEET OF THE HYDRANT OR CONNECTION. WORDING MUST BE PAINTED ON CURBS IN THESE AREAS INDICATING "NO PARKING FIRE LANE" AND MUST BE A MINIMUM OF 3" TALL.

## BUILDING MARKINGS

ADDRESS NUMERALS SHALL NOT BE LESS THAN THREE INCHES IN HEIGHT FOR RESIDENTIAL BUILDINGS, STRUCTURES OR PORTIONS THEREOF, AND AT LEAST SIX INCHES IN HEIGHT FOR ALL OTHER BUILDINGS, STRUCTURES OR PORTIONS THEREOF. ADDRESS NUMERALS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS, NO CURSIVE LETTERS.

## COMMERCIAL BUILDINGS

"KEY LOCK BOX APPROVED BY A CITY FIRE OFFICIAL" WILL BE REQUIRED ON ALL COMMERCIAL BUILDINGS (NFPA 1, CODE CHAPTER 3-6 AS ADAPTED IN THE FLORIDA FIRE PREVENTION CODE THROUGH FLORIDA ADMINISTRATIRVE CHAPTER 4A-60.003, RULES OF THE STATE FIRE MARSHAL, AND AUTHORIZED BY FLORIDA STATUTES 633.0215, 633.025). THESE SHALL BE INSTALLED ON THE EXTERIOR WALL OF THE BUILDING WITHIN ONE FOOT OF THE LEFT SIDE OF THE MAIN PUBLIC ENTRANCE DOOR AT A HEIGHT OF SIX (6) FEET. IN THE CASE OF A MULTI-OCCUPANCY BUILDING, SUCH AS A ROW OF STORES, MULTI-OFFICE BUILDING, ETC., ONLY ONE KEY LOCK BOX PER BUILDING WILL BE REQUIRED UNLESS EXTENUATING CIRCUMSTANCES INDICATE THE NEED FOR ADDITIONAL LOCK BOXES. THIS BOX SHALL BE INSTALLED ON THE EXTERIOR WALL OF THE BUILDING WITHIN ONE FOOT OF THE LEFT END OF THE SIDE OF THE BUILDING CONTAINING THE MAIN PUBLIC ENTRANCE (AS YOU ARE FACING THE MAIN ENTRANCE) AT A HEIGHT OF SIX (6) FEET. IN THE CASE OF A MULTI-FAMILY COMPLEX, ONLY ONE KEY LOCK BOX WILL BE REQUIRED FOR THE COMPLEX UNLESS EXTENUATING CIRCUMSTANCES INDICATE THE NEED FOR ADDITIONAL KEY LOCK BOXES. THIS BOX SHALL BE LOCATED AT THE MAIN ENTRANCE TO THE CLUBHOUSE, INSTALLED AS INDICATED ABOVE FOR COMMERCIAL BUILDINGS. IF THERE IS NO CLUBHOUSE, THE BOX SHALL BE INSTALLED