The Enclosed Document Is Provided For Your Convenience.

Please Email ALL Questions:

MailTo:ContractAdministration@TampaGov.net

Please Let Us Know If You Plan To Bid

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456



FIRE STATION 19 13-C-33



5 M CIVIL LLC JESUS MERLY, P.E. MANAGER 12315 WYCLIFF PLACE TAMPA, FL 33626 PHONE 813 404-8872 OFFICE FAX 813 852-6320

LANDSCAPE

DAYID CONNER & ASSOCIATES 1509 W. SWANN AVENUE SUITE 255 TAMPA, FL 33606 PHONE (813) 258-1997

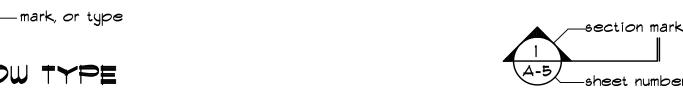
STRUCTURAL

ROGAL - TGA CONSULTING ENGINEERS, INC. CHRISTOPHER J. ROGAL P.E. 124 5th AVENUE SOUTH SUITE B SAFETY HARBOR, FL 34695 PHONE (813) 726-2241

MECHANICAL, ELECTRICAL, PLUMBING

GRINER, ENGINEERING, INC. 1628 Ist. AVENUE NORTH ST. PETERSBURG, FL 33713

SYMBOLS



SECTION CUT

ELEVATION

—elevation mark

-sheet number

–elevation mark

sheet number

MULTI-ELEVATION

–∨iew mark

(on same sheet)

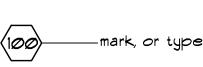
105-





RESTROOM ACCESSORY





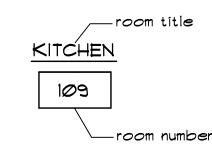
DOOR NUMBER

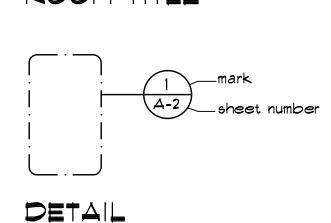


-scale FLOOR PLAN A-2/ SCALE: 1/8"=1'-0" north arrow. —sheet number

-drawing type N

DESCRIPTIVE TITLE





năndhole

hardware

hollow core

APPROVED PRODUCTS LIST

hose bibb

height

PRODUCT CATEGORY

PANEL WALLS

PANEL WALLS

WINDOWS

ROOFING

WINDOWS

DOORS

DOORS

HT HB

ABBREVIATIONS INSUL insulate (d), (ion) above finished floor ADJT adjustable joint JST LAV LTL joist A/C air conditioning ALT AB BM BIT ľavatory alternate lintel anchor bolt beam MHmanhole MO bituminous masonry opening MECH mechanical BLKG blocking MET MOD BUR CIPC built up roofing metal cast-in-place concrete modular CLG NOM nominal ceiling NIC not in contract ceramic tile CLR COL CON NTS clearance not to scale column PLAS plaster concrete pressure CMT polyvinyl chloride ceramic mosaic tile CMU bost-tension concrete concrete masonry unit PCF bounds per cubic feet CONT continuous or continue pounds per lines | foot control joint pounds per square foot dampproofing DL DET DIA pounds per square inch dead load precast concrete diameter PL property line DIM RAD radius dimension DR DS DWG RYT reinforced vinyl title door downspout reference return air drawing RD DF roof drain drinking fountain RFG RO roofina ELEC electrical EWC electrical water cooler rough opening EL EQ service sink elevation similar EXIST solid core existing SPEC specification(s) EXPJT expansion joint EXT SQ exterior square SS FFE finished floor elevation stäinless steel STL finished floor line steel STR FLG FLR flashina structural TBR flooring to be removed TEL FD FTG telephone floor drain thick(ness) footing T&G FOB furnished by others tonque & groove UNO unless noted otherwise gage, gauge galvanized GALY **YB** vapor barrier GC GL GB YERT vertical general contractor \vee A \dagger vinul asbestos title glass, glazing arab bar YB vinyl base GYPDWL water closet gypsum dry wall

water heater

wood

WD

SUB CATEGORY

WALL LOUVER

STOREFRONT

METAL ROOF

PROJECTED

METAL ENTRANCE

SECTIONAL OVERHEAD DOOR

SOFFITS

water proofing

PROJECT NOTES

MANUFACTURER

PETERSON ALUMINUM CORP.

GREENHECK FAN CORP.

KAWNEER COMPANY, INC.

STEELCRAFT / INGERSOL

EFCO-2700 SERIES

CLOPAY

TAMKO ROOFING PRODUCTS

- ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO ALL STATE LAWS, LOCAL ORDINANCES, UTILITY COMPANY, FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION, THE STANDARD MECHANICAL CODE, THE STANDARD PLUMBING CODE, THE OCCUPATIONAL SAFETY AND HEALTH ACT, NFPA AND THE CURRENTLY ADOPTED STANDARD BUILDING CODE
- CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE PROJECT SITE AS REQUIRED TO MAINTAIN A SAFE AND ORDERLY WORK ENVIRONMENT.
- GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO AND DURING CONSTRUCTION.
- DEMOLITION WORK SHALL NOT BE LIMITED TO THESE DOCUMENTS TO COMPLETE PROJECT AS ILLUSTRATED, REMOVE ITEMS NECESSARY TO ALLOW FOR NEW CONSTRUCTION.
- EXISTING SURFACES (WALLS, CEILINGS, ETC.) SHALL BE PROTECTED DURING CONSTRUCTION. THE CONTRACTOR SHALL CLEAN SURFACES AFTER CONSTRUCTION. REPAIR, PAINT AND OR REPLACE AREAS DAMAGED AS A RESULT OF PERFORMANCE OF THE WORK.
- ALL WORK SHALL BE COORDINATED WITH THE CITY OF TAMPA'S ARCHITECTURAL REPRESENTATIVE.
- THE CONTRACTOR SHALL SECURE ALL OPENINGS UNDER CONSTRUCTION AT THE END OF EACH WORKING DAY.
- ITEMS OR AREAS DAMAGED BY THE CONTRACTOR OR SUBCONTRACTORS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PROVIDE DEAD WOOD BLOCKING FOR ALL WALL CABINETS, WOOD BASES, CHAIR RAILS, CROWN MOULDINGS, AND ANY OTHER ITEMS THAT REQUIRE BLOCKING FOR PROPER ANCHORING.

APPROVAL NO.

FL4483-R5

FL10088.1

FLT359-R4

FL39Ø1-R5

FL12400-R2

FL12912-R2

FL16107

EXP. DATE

8/7/2013

7/17/2@13

3/5/2013

6/11/2013

1/18 2013

12/13/2014

12/1/2014

PROJECT NOTES

FIRM NOTE

COMMUNITY-PANEL NUMBER 201005.00W

FLOOD ZONE - A9

CODE REFERENCES

CLASSIFICATION:

• OCCUPANCY: ASSEMBLY A-3, ALTERATION LEVEL 2

CONSTRUCTION TYPE:

EXIT REQUIREMENTS:

• MINIMUM CORRIDOR WIDTH - 44" • MAXIMUM TRAVEL DISTANCE - 200 FT.

• COMMON PATH OF TRAVEL - 15 FT. • DEAD END CORRIDOR - 20 FT.

FIRE RATING/CONSTRUCTION OF: • INTERIOR BEARING WALLS - NC

• ROOF & ROOF/CEILING - NC • FLOOR - NC

INTERIOR FINISHES: • ALL SPACES: CLASS "C" MATERIALS MINIMUM

• FLAME SPREAD: 16 - 200

• SMOKE DEVELOPED: Ø - 45Ø

TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, THESE DOCUMENTS COMPLY WITH CURRENTLY ADOPTED CODES.

ALL PROPOSED CONSTRUCTION SHALL COMPLY WITH CURRENTLY ADOPTED CODES, STANDARDS AND ACTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO:

- FLORIDA FIRE PREVENTION CODE 2010.
- FLORIDA BUILDING CODE 2010
- FLORIDA STATUTE *633, WHICH INCLUDES:
- STATE FIRE MARSHALL'S RULES AND REGULATIONS
- NATIONAL ELECTRICAL CODE, 2008
- NFPA* 13, INSTALLATION OF SPRINKLER SYSTEMS
- NFPA* 2Ø, INSTALLATION OF SECONDARY PUMPS.
- NFPA* 24, PRIVATE FIRE SERVICE MAINS.
- NFPA* 90A, INSTALLATION OF AIR-CONDITIONING AND VENTILATION SYSTEMS, 1996
- NFPA* 1 \$ 101 (2009)

WIND SPEED: 151 MPH EXPOSURE CATAGORY - 'B' IMPORTANCE FACTOR - 1.15 BUILDING CATEGORY - IV

SEE STRUCTURAL DRAWINGS FOR INFORMATION

LOCATION MAP

P-10 PLUMBING COVER SHEET
P-20 PLUMBING SITE PLAN
P-30 OVERALL PLUMBING SUPPLY & SANITARY PLANS
P-3.1 OVERALL GAS PLAN
P-40 ENLARGED PARTIAL PLUMBING SUPPLY PLANS
P-4.1 ENLARGED PARTIAL PLUMBING SANITARY PLAN
P-50 PLUMBING SCHEDULES
P-60 SUPPLY RISER
P-6.1 SANITARY RISER
P-6.2 CAR PISER

ARCHITECT

TAMPA, FL 33602

FAX: 274-8080

306 E. JACKSON ST. 4N

EMAIL: PW61 @ CI. TAMPA. FL. US

CONSTRUCTION NOTES, LEGENDS AND

EXISTING CONDITIONS / DEMOLITION PLAN

PAYING, GRADING AND DRAINAGE PLAN UTILITY SERVICE PLAN

PHONE: (813) 274-8773

COVER SHEET GENERAL INFORMATION

MASTER SITE PLAN

CIVIL DETAILS

LANDSCAPING

LA-002 TREE PRESERVATION, PROTECTION AND REMOVAL PLAN

LA-300 PLANTING DETAILS

LA-301 PLANTING NOTES AND DETAILS

LA-400 IRRIGATION PLANS LA-401 IRRIGATION NOTES AND DETAILS

SECTIONS AND DETAILS SECTIONS AND DETAILS SECTIONS AND DETAILS ARCHITECTURAL

ROOF PLAN & DETAILS

A-5.1 EXTERIOR ELEVATIONS

A-1,1 ENLARGED FLOOR PLAN

A-8.1 SCHEDULES & DETAILS

A-10.1 INTERIOR ELEVATIONS

ELECTRICAL

ELECTRICAL DETAILS ELECTRICAL DETAILS

MECHANICAL

M-10 MECHANICAL COVER SHEET

M-2*ø overa*llmechanical plan

M-4.0 ENLARGED MECH. PLAN - SLEEPING QUARTERS

M-4.1 ENLARGED MECH. PLAN - APPARATUS BAY

M-4.2 ENLARGED MECH. PLAN - ACTIVITY AREA

M-3.0 MECHANICAL ROOF PLAN

M-5.0 MECHANICAL SCHEDULES

M-5.1 MECHANICAL SCHEDULES

M-6.3 MECHANICAL SCHEMATICS

M-6.4 MECHANICAL SCHEMATICS

M-7.0 MECHANICAL SPECIFICATIONS

M-7.1 MECHANICAL SPECIFICATIONS

M-7.2 MECHANICAL SPECIFICATIONS

M-7.3 MECHANICAL SPECIFICATIONS

PLUMBING COVER SHEET

P-6.2 GAS RISER
P-1.0 PLUMBING DETAILS
P-1.1 PLUMBING DETAILS
P-8.0 PLUMBING SPECIFICATIONS

M-60 MECHANICAL DETAILS

M-6.1 MECHANICAL DETAILS

M-62 MECHANICAL DETAILS

PLUMBING

A-62 WALL SECTIONS A-6.3 WALL SECTIONS

REFLECTED CEILING PLAN & DETAILS

A-9.1 STOREFRONT ELEVATIONS AND DETAILS

ARCHITECTURAL SITE PLAN
INFORMATIONAL FLOOR PLAN / PARTITION TYPES
DIMENSIONAL FLOOR PLAN

ELECTRICAL LEGEND, GENERAL NOTES & ABBREVIATIONS
ELECTRICAL SITE PLAN
ELECTRICAL LIGHTING PLAN
ELECTRICAL POWER PLAN
ELECTRICAL SYSTEMS PLAN
ELECTRICAL HVAC PLAN
ELECTRICAL ROOF PLAN
ELECTRICAL RISER DIAGRAM
ELECTRICAL PANEL SCHEDULE
ELECTRICAL DETAILS
ELECTRICAL DETAILS
ELECTRICAL DETAILS
ELECTRICAL DETAILS

ELECTRICAL LIGHTING FIXTURE SCHEDULE AND CONTROL PANEL DETAILS ELECTRICAL LIGHTING SYSTEM RISER AND DETAILS ELECTRICAL LIGHTING CONTROL SCHEDULE FIRE ALARM RISER DIAGRAM FIRE ALARM DETAILS

STRUCTURAL

6-1.1 GENERAL NOTES 6-2.0 FOUNDATION PLAN 6-2.1 ROOF FRAMING DETAILS 6-3.0 SECTIONS AND DETAILS

CD-1 PGD DETAILS
CD-2 WASTEWATER DETAILS
CD-3 WASTEWATER DETAILS
CD-4 LIFT STATION DETAILS

CD-5 WATER DETAILS CD-6 WATER DETAILS

GENERAL

COVER SHEET

SYMBOLOGY

DPR #15839

INDEX

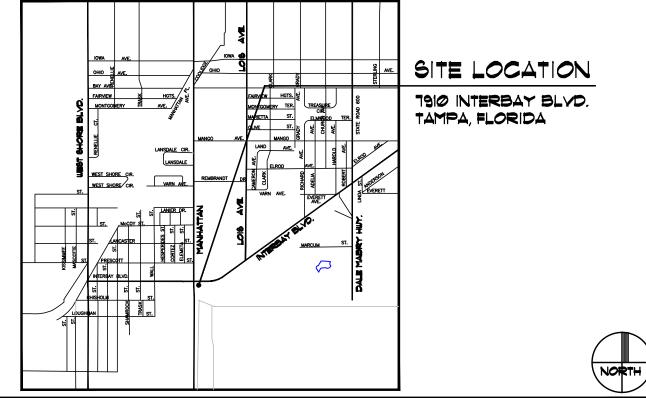
JAMES E. JACKSON JR., AIA, NOMA, CITY ARCHITECT

FIRE PROTECTION FP-IØ FIRE PROTECTION DRAWING INDEX, GENERAL NOTES, LEGENDS AND

FLOW AND PRESSURE TEST DATA FP-20 FIRE PROTECTION SITE PLAN FP-30 FIRE PROTECTION FLOOR PLAN

FP-5.0 FIRE PROTECTION SPECIFICATIONS

FP-3.1 FIRE PROTECTION ATTIC PLAN FP-40 FIRE PROTECTION DETAILS



LEGAL DESCRIPTION

SEC 16, T305, R18E ATLAS SHEET No. N-9 ZONING: RM-16

FOLIO: 137037.0000

SQUARE FOOTAGE

8721 SQUARE FEET

G OF

SHEET NUMBER

FIRE STATION 19

CONSTRUCTION DOCUMENTS

May 31, 2013

PROJECT LOCATION 7910 INTERBAY BLVD TAMPA, FL 33616

LEGAL DESCRIPTION

THE WEST 213.96 FEET OF THE FOLLOWING DESCRIBED PARCEL

(OFFICIAL RECORD BOOK 20090 PAGE 1294 OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA)

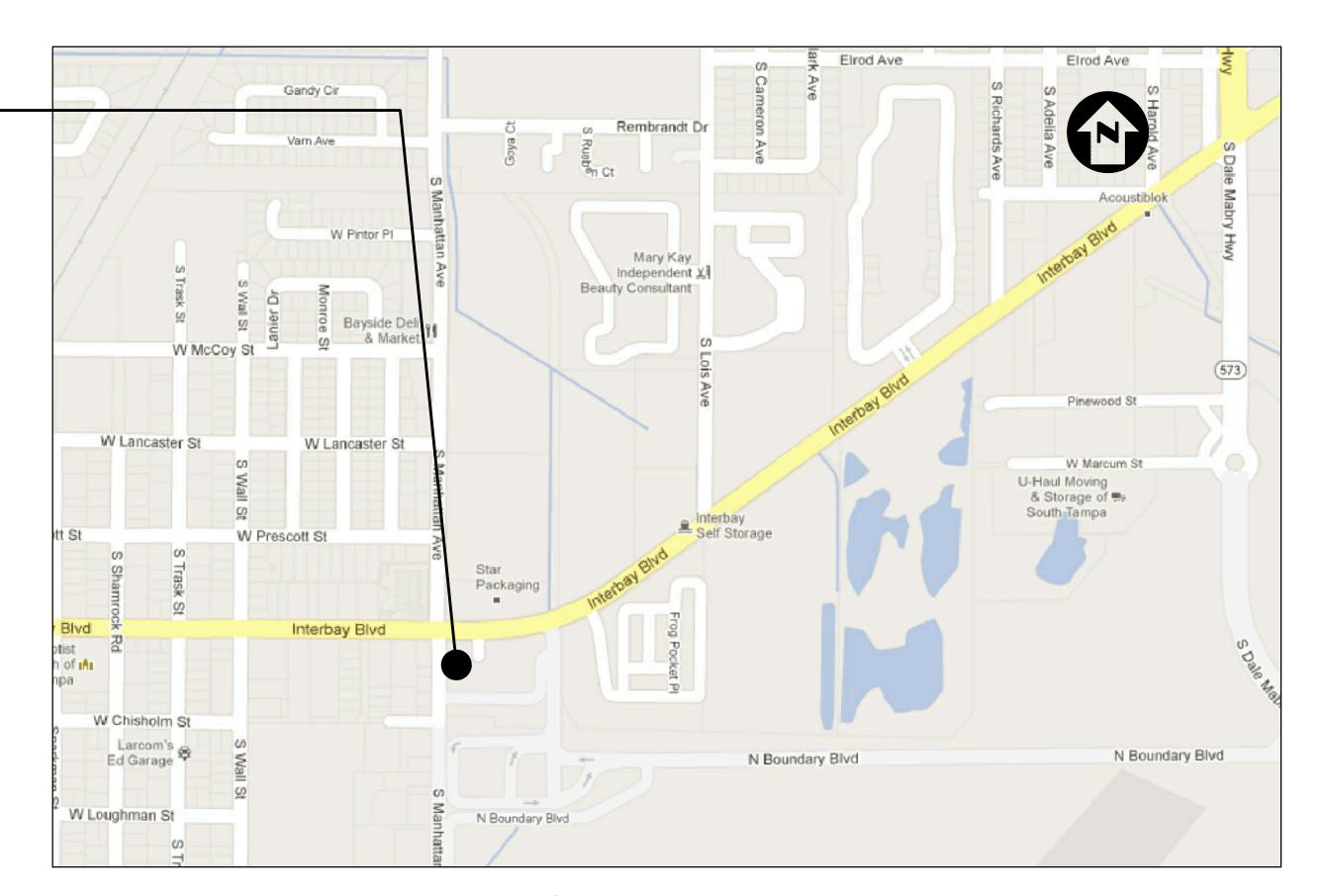
FROM THE SOUTHWEST CORNER OF SECTION 16, TOWNSHIP 30 SOUTH, RANGE 18 EAST, RUN THENCE NORTH 50 FEET, ALONG THE WEST BOUNDARY OF SAID SECTION 16, THENCE SOUTH 88'55'00" EAST, 30 FEET, PARALLEL WITH THE SOUTH BOUNDARY OF SAID SECTION 16, FOR A POINT OF BEGINNING; THENCE NORTH 365.29 FEET, PARALLEL TO THE WEST BOUNDARY OF SAID SECTION 16, TO THE SOUTHERLY RIGHT-OF-WAY LINE OF INTERBAY BOULEVARD (50 FEET FROM CENTER LINE), THENCE NORTH 89'40'00" EAST, 194.73 FEET, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE TO A POINT OF CURVATURE THENCE NORTHEASTERLY ALONG A 4"47.5" CURVE TO THE LEFT AN ARC DISTANCE OF 327.11 FEET, (CHORD NORTH 81"23'00" EAST, 326.44 FEET) TO THE WESTERLY RIGHT-OF-WAY LINE OF MACDILL FIELD SPUR TRACK (25 FEET FROM CENTER LINE; THENCE SOUTHERLY, 475.5 FEET MORE OR LESS, ALONG THE WESTERLY RIGHT-OF-WAY LINE OF MACDILL FIELD SPUR TRACK, AND THE WESTERLY RIGHT-OF-WAY LINE OF THE WESTERLY SIDING BRANCHING FROM SAID SPUR TRACK (25 FEET FROM CENTER LINE), TO THE SOUTH BOUNDARY OF SAID SECTION 16, THENCE NORTH, 88' 55'00" WEST, 257.6 FEET, ALONG THE SOUTH BOUNDARY OF SAID SECTION 16, THENCE NORTH 50 FEET, THENCE NORTH 88'55'00' WEST 220 FEET TO THE POINT OF BEGINNING AND BEING A PORTION OF THE SW 1/4 OF THE SW 1/4 OF SECTION 16, TOWNSHIP 30 SOUTH RANGE 18 EAST, HILLSBOROUGH COUNTY, FLORIDA, EXCEPT THE EASEMENT FOR SIDEWALK PURPOSES OF THE EAST 6 FEET OF THE WEST 36 FEET OF THE SOUTHWEST 1/4 OF SECTION 16, TOWNSHIP 30 SOUTH, RANGE 18 EAST, AND EXCEPT THE PROPERTY DESCRIBED IN THE JUDGMENT ON THE DECLARATION OF TAKING, RECORDED IN THE OFFICE OF THE CLERK OF THE UNITED STATES DISTRICT COURT, TAMPA DIVISION, IN THE CIVIL ORDER BOOK 7, PAGE 105, OF THE RECORDS OF SAID OFFICE.



Professional Civil Engineering Services

12315 Wycliff Pl Tampa, FL 33626 PHONE: (813) 404-8872 www.5mcivil.com

FBPR Certificate of Authorization No: 26,929



VICINITY MAP

HILLSBOROUGH COUNTY, FLORIDA Section 16, Township 30S, Range 18E

OWNER

City of Tampa 306 E. Jackson Street Tampa, FL 33602 813-274-8773

DRAWING INDEX

(TOTAL NUMBER OF SHEETS = 17)

GENERAL

- **Cover Sheet**
- Construction Notes, Legend & Symbology
- **Existing Conditions/Demolition Plan**

CIVIL

- Master Site Plan
- Paving, Grading and Drainage Plan
- **Utility Service Plan**

CIVIL DETAILS

- CD-1 PGD Details
- **CD-2** Wastewater Details
- CD-3 Wastewater Details
- CD-4 Lift Station Details
- CD-5 Water Details
- CD-6 Water Details

LANDSCAPING

- LA-002 Tree Preservation, Protection and Removal Plan
- LA-300 Planting Plans
- LA-301 Planting Notes and Details
- LA-400 Irrigation Plans
- LA-401 Irrigation Notes and Details

REFERENCE (FDOT Design Standard Indexes)

- 001 Standard Abbreviations
- 102 Temporary Erosion and Sediment Control
- 300 Curb & Curb and Gutter
- 304 Public Sidewalk Curb Ramps
- 310 Concrete Sidewalk

5/31/13	CONSTRUCTION DOCUMENTS
DATE	REVISION

FIRE STATION 19

Engineer of Record: Jesus A. Merly, PE FL Reg No. 58113

CONSTRUCTION NOTES

- Specific requirements of CITY OF TAMPA (COT) specifications and standards are incorporated into the contract documents by reference
- Specific requirements of the Florida Department of Transportation's Roadway and Traffic Design Standards, and Standard Specifications for Road and Bridge Construction are incorporated into the contract documents by reference.
- All specifications and documents referred to in these plans shall be of the
- The Contractor shall maintain copies of all applicable permits on—site and shall
- be responsible to adhere to all permit conditions during construction. The Contractor shall become familiar with the permit and inspection requirements specified by the various governmental agencies. The Contractor
- All work performed shall comply with the regulations and ordinances of the various governmental agencies having jurisdiction over the work.

necessary inspections according to agency instructions.

Contractor shall submit shop drawings on all precast and manufactured items to the owner's engineer for approval. Failure to obtain approval before installation may result in removal and replacement at Contractor's expense.

shall obtain all necessary permits prior to construction, and schedule any

- . Contractor shall locate all existing utilities before ordering materials and casting
- Work performed under this contract shall interface smoothly with other work being performed on site by other Contractors and utility companies. It will be necessary for the Contractor to coordinate and schedule activities, where necessary, with other Contractors and utility companies, including electric, cable, telephone and utility company subcontractors
- 10. It shall be the responsibility of the Contractor to obtain the required permits to perform work in the public right-of-way.
- . Contractor shall provide appropriate signage for construction traffic in accordance with FDOT Standard Index 600 and the United States Department of Transportation Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
- 2. The Contractor shall endeavor to protect private and public property. Any damage caused by the Contractor in the performance of his work shall be corrected to the satisfaction of the engineer in a timely manner. Payment shall not be made for this work.
- 13. Overall cleanup shall be accomplished by the Contractor in accordance with county standards or as directed by the engineer. Any and all expenses incurred for this work shall be included in the price bid for other items.
- 14. Any damage to state, county, or local roads caused by the Contractor's hauling or excavation equipment shall be repaired by the Contractor in a timely manner to the satisfaction of the Engineer. Payment shall not be made for this work.

<u>SAFETY</u>

- During the construction and maintenance of this project, all safety regulations are to be enforced. The Contractor or his representative shall be responsible for the control and safety of the traveling public and the safety of Contractor's personnel.
- . Labor safety regulations shall conform to the provisions set forth by OSHA.
- Contractor shall provide and maintain its own safety equipment in accordance with its health & safety program and all other applicable legal and health and safety requirements. The Contractor is also responsible for providing its employees and subcontractors with adequate information and training to ensure that all employees and subcontractors and subcontractors' employees comply with all applicable requirements. Contractor shall remain in compliance with all occupation safety and health regulations as well as the environmental protection laws. The following is not to be perceived as the entire safety program but iust basic requirements
- All excavations by the Contractor shall conform to the requirements of the Department of Labor's Occupational Safety and Health Administration rules and regulations. Particular attention must be paid to the construction standards for excavations, 29 CFR Part 1926, subpart P
- The minimum standards as set forth in the current edition of "The State Of Florida, Manual On Traffic Control And Safe Practices For Street And Highway Construction Maintenance and Utility Operations" shall be followed in the design application, installation, maintenance and removal of all traffic control devices warning devices and barriers necessary to protect the public and workmen from hazards within the project limits.
- It shall be the sole responsibility of the Contractor to comply and enforce all applicable safetyregulations. The above information has been provided for the Contractor's information only and does not imply that the owner or engineer will inspect and/or enforce safety regulations.

SURVEY

- Contractor shall protect property markers, monuments temporary benchmarks and other survey control points. The contractor's registered surveyor shall replace to existing or better condition any disturbed property markers, monuments and temporary benchmarks to their original condition at the Contractor's expense.
- All points and monuments shall be surveyed upon mobilization to verify their accuracy. Any discrepancies discovered must be brought to the attention of the engineer in writing.
- Upon completion of construction, the contractor shall furnish the owner's engineer with complete "as-built" information certified by a registered land surveyor. This "as-built" information shall include invert elevations, location of fittings, location of structures for all utilities installed, as well as top of bank, toe of slope and grade break locations and elevations for pond and ditch construction. No engineer's certifications for certificate of occupancy purposes will be made until this information is received and approved by the owner's
- The topographical survey depicted within this plan set was based on a field survey date of 6/30/2011. Existing topography and features shown are indicative of field conditions at that time.
- All utilities depicted hereon are from visible evidence only. Surveyor did not contact subsurface utility locator service.
- No underground foundations or footers were excavated or located for this

THE BASIS OF BEARING IS REFERENCED FROM THE SOUTH LINE OF THE SUBJECT PARCEL AS SHOWN ON THE MAP OF SURVEY BEING N87.56'57"W.

. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, FILE # 15871, EFFECTIVE DATE: MAY 30, 2011 AT 8:00 A.M., ISSUED THROUGH THE ÖFFICE OF: SOUTHLAND TITLE COMPANY, 3321 W. KENNEDY BLVD. TAMPA, FL 33609, PHONE: 813-879-8882.

3. SHEET 10 OF 15 OF A BOUNDARY SURVEY OF MACDILL AIR FORCE BASE NVZR-02-0109, PREPARED BY GEORGE F. YOUNG, INC., 8621 MARTIN LUTHER KING BOULEVARD, TAMPA, FL 33610, PHONE 813-223-1747, DATED 5/21/03 WAS UTILIZED IN THE PREPARATION OF THIS SURVEY.

4. ELEVATIONS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88) CONTROL BENCHMARK USED IS A = CITY OF TAMPA BENCHMARK, DESIGNATED HV-02 0058 HAVING A PUBLISHED ELEVATION OF 10.301 (FEET).

LIMITATIONS:

- THERE MAY BE ITEMS DRAWN OUT OF SCALE AND / OR MOVED ON THE MAP OF SURVEY TO GRAPHICALLY SHOW THEIR LOCATION. PRÍNTED DIMENSIONS SHOWN ON THE SURVEY SUPERSEDE SCALED DIMENSIONS.
- 2. UNDERGROUND FOUNDATIONS AND THEIR LOCATIONS HAVE NOT BEEN DETERMINED. IRRIGATION EQUIPMENT AND / OR THEIR APPURTENANCES HAVE NOT BEEN LOCATED UNLESS OTHERWISE SHOWN HEREON.
- 4. ALL NON EXOTIC TREES 4 INCHES IN DIAMETER AND ABOVE HAVE BEEN LOCATED WITH COMMON NAME AND APPROXIMATE DIAMETER BREAST HIGH. SMALLER TREES. NON-PROTECTED SPECIES (INCLUDING ORNAMENTALS) AND TREES WITHIN JURISDICTIONAL AREAS (IF ANY) HAVE NOT BEEN LOCATED. TREES BY NATURE ARE IRREGULAR IN SIZE AND SHAPE. EVERY EFFORT IS MADE TO ACCURATELY LOCATE TREES. THE TREE LOCATION IS THE CENTER OF THE TREE. THIS LOCATION MAY BE DIFFERENT IF LOCATED FROM A DIFFERENT DIRECTION. ALL TREE LOCATIONS SHOULD BE FIELD CHECKED IF CRITICAL TO DESIGN.

GENERAL EROSION AND TURBIDITY CONTROL NOTES

- The Site Subcontractor shall be responsible for installation and maintenance of all erosion and turbidity controls and the quality and quantity of offsite or
- wetland discharges. Prior to construction, the Site Subcontractor is responsible for having hi dewatering plan and turbidity control plan approved by the applicable reviewina agencies. Refer to the project's permit approvals and permit conditions for agencies requiring such review and approval. Questions concerning appropriate techniques should be addressed to those agencies and/or discussed with the project engineer and owner.
- The appropriate turbidity and erosion control methodologies selected by the Site Subcontractor for this project should be made following assessment of the plans and project site specific factors and after consultations as needed with the project engineer and appropriate agencies. The Site Subcontractor will be responsible for obtaining any and all necessary permits for such activity. At the onset of construction, the Site Subcontractor, as the party responsible
- for implementation of the erosion and sediment control plan, shall assess the above described conditions and factors with respect to relative cos effectiveness and select the appropriate methods of protection. A fairly extensive list of techniques are presented below but it must be stressed that any or all of the following may be necessary to maintain water quality and quantity standards. The construction sequencing should be thought out advance of initiation to provide adequate protection of water quality.
- Discharges which exceed 29 N.T.U.'s over the background levels are i violation of state water quality standards. Discharges of water quantities which affect offsite properties or may damage wetlands are also prohibited by
- The erosion and turbidity control measures shown hereon are the minimum required for agency approval. Additional control and measures may be required due to the Site Subcontractor's construction sequence & unforeseen weather conditions. Any additional measures deemed necessary by the Site Subcontractor shall be included in the lump sum bid with no extras for materials and labor allowed.
- Hay bales or silt screens shall be installed prior to land clearing to protect water quality and to identify areas to be protected from clearing activities and maintained for the duration of the project until all soil is stabilized Floating turbidity barriers shall be in place in flowing systems or in open

water lake edges prior to initiation of earthwork and maintained for the

No clay material shall be left exposed in any stormwater storage facility. clay or sandy-clays are encountered during stormwater storage excavation, the Site Subcontractor shall notify the Engineer immediately before proceeding with further excavation. If the Engineer of Record has determined that such soils are non-confining and must be excavated to meet permit and design conditions, excavation may proceed after obtaining written authorization from the appropriate governing agency. If said soils are left exposed at the permitted and designed depth, the Site Subcontractor shall over-excavate the pond's bottom and side slopes by a minimum of twelve (12") inches and backfill with clean sands to help prevent suspension of fine particles in the

duration of the project until all soil is stabilized.

- water column. The installation of temporary erosion control barriers shall be coordinated with the construction of the permanent erosion control features to the extent necessary to assure effective and continuous control of erosion and water pollution throughout the life of the construction phase.
- The type of erosion control barriers used shall be governed by the nature of the construction operation and soil type that will be exposed. Silty and clayey material may require solid sediment barriers to prevent turbid water discharge, while sandy material may need only silt screens or hay bales to prevent erosion. Floating turbidity curtains should generally be used in open water situations. Diversion ditches or swales may be required to prevent turbid stormwater runoff from being discharged to wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches, and other erosion/turbidity control measures if conditions warrant.
- . Where pumps are to be used to remove turbid waters from construction areas, the water shall be treated prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate upland vegetated areas (other than upland preservation areas and wetland buffers), sediment basins, or confined by an appropriate enclosure such as turbidity barriers or low berms, and kept confined until turbidity levels meet State Water Quality Standards.
- The Permittee shall schedule his operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operation, and the duration of exposed uncompleted construction to the elements shall be as short as practicable. Clearing and grubbing shall be so scheduled and performed such that grading operations can follow immediately thereafter. Grading operations shall be so scheduled and performed that permanent erosion control features can follow immediately thereafter if conditions on the project permit.
- . Water derived from various dewatering methods should be passed through sufficiently wide areas of existing upland vegetation to filter out excess turbidity. If this is not sufficient, the water shall be retained in previously constructed permanent stormwater ponds or else retained in temporary sedimentation basins until the clarity is suitable to allow for its discharge. Plugging the outfalls from completed stormwater ponds may be needed avoid discharge. However, such situations should be monitored closely to preclude berm failure if water levels rise too high.
- Water can be transported around the site by the use of internal swales or b pumps and pipes. Sheet flow of newly filled or scraped areas may be controlled or contained the use of brush barriers, diversion swales, interceptor ditches or low berms.

Flow should be directed toward areas where sediments can sufficiently settle

- . Exposed soils shall be stabilized as soon as possible, especially slopes leading to wetlands. Stabilization methods include solid sod, seeding and mulching or hydromulching to provide a temporary or permanent grass cover mulch blankets, filter fabrics, etc., can be employed to provide vegetative cover.
- 3. Energy dissipaters (such as rip rap, a gravel bed, hay bales, etc.) shall be installed at the discharge point of pipes or swales if scouring is observed. . Attempt to install roadway curb and gutters as soon as possible to reduce the surface area for erosion to occur.
- . Implement storm drain inlet protection (hay bales or gravel) to limi sedimentation within the stormwater system. Perform inspections and periodic cleaning of sediments which wash out into the streets until all soil is stabilized. . Water discharge velocities from impounded areas and temporary sedimentation basins shall be restricted to avoid scouring in receiving areas.
- . If water clarity does not reduce to state standards rapidly enough in holding ponds, it may be possible to use chemical agents such as alum to flocculate or coagulate the sediment particles.
- . Hay bales, silt screens, or gravel beds can be added around the pipe o swale discharge points to help clarify discharges. Spreader swales may help dissipate cloudy water prior to contact with wetlands. 4. All fuel storage areas or other hazardous storage areas shall conform
- accepted state or federal criteria for such containment areas. 5. Vehicle or equipment washdown areas will be sufficiently removed from wetlands or offsite areas. 6. Fugitive dust controls (primarily by using water spray trucks) shall be
- employed as needed to control windborn emissions. 7. If the above controls remain ineffective in precluding release of turbid water, especially during pond or utility line dewatering, then the contractor may be compelled to use a vertical dewatering system such as well points or sock drains to withdraw groundwater which may already be clear enough to allow for
- direct discharge to wetlands. 8. Ongoing inspections and periodic maintenance by the CONTRACTOR/SUBCONTRACTOR shall occur throughout construction as necessary to insure the above methods are working suitably. This may be needed daily,
- if conditions so warrant. 29. The contractor will perform daily inspections of all on—site wetlands within the construction area to ensure that water levels within those wetlands are not excessively impounded prior to the time when the permitted control structure or outfall is built. Water levels significantly above normal should be corrected at a frequency that prevents a change in the vegetative character or health of any wetlands.

STREET & DRAINAGE CONSTRUCTION NOTES:

- Grass and mulch, or solid sod, all areas in existing rights— of—way disturbed by construction. Contractor is to coordinate all work within, but not limited to adjacent
- lines and making of adjustments to same, if required. curb in the vicinity of the respective inlet for alignment and grade, and the prevent vegetation from clogging them. Contractor shall construct the inlet allowing for a concrete throat between the
- allowed for removing and/or correcting the inlets. Fill obtained through excavation of detention pond shall be placed on site and adjacent land in accordance with the Drainage and Grading Plan as directed by the Engineer.
- Sod/Seed & Mulch shall be placed in accordance with applicable City/County standards as well as in accordance with standard and specific conditions in re-dug to the original design specifications, if silted in. the SWFWMD permit, if applicable. At a minimum this shall include sodding o all pond embankments of a slope 5:1 or greater to the NW line, as well as | For percolation treatment ponds/swales, the owner of the facility shall inspect the seeding and mulching of the balance of the pond tracts (including pond pond bottom periodically after heavy rainfall events to check for persistent ponding berms, excluding the area below NW), sodding at a minimum of 2' from the back of curb, and seeding and mulching of any project area with a slope of
- 5:1 or steeper. Building downspouts to be directed to the on-site storm drainage system. Future expansion areas, if disturbed, to be grassed and mulched or sodded to prevent erosion to existing pavement surfaces.
- Site clearing shall be performed per the approved construction plans and in accordance with City of Tampa Ordinances. Installation and maintenance of plant survival rates are required to be sent to any reviewing agencies. Written the required barricading and erosion control shall be the responsibility of the notes should always be kept which describe maintenance activities undertaken site development Contractor unless otherwise designated.
- Prior to beginning construction, Contractor shall expose all existing utility and adequacy of these inverts.

WATER AND SEWER CONSTRUCTION NOTES:

- Prior to construction, the Contractor shall obtain from the Engineer or Owner a copy of all pertinent permits related to this project. It is the Contractor's responsibility to assure that all construction activities are in compliance with the conditions of all permits and approvals.
- All construction, materials and workmanship are to be in accordance with CITY OF TAMPA Water and Wastewater Technical Manual, latest edition, unless otherwise noted herein.
- Sod all areas in existing rights—of—way disturbed by construction.
- Contractor is to coordinate all work within, but not limited to, City of Tampa rights—of—way with utility companies in order to prevent damage to utility lines and the making of adjustments to same, if required.
- Contractor shall contact the engineer and/or the owner prior to construction that may damage trees.
- Contractor shall verify locations and depths of existing water and sewer lines prior to beginning construction
- Contractor shall be responsible for obtaining any and all road crossing and/or utility permits. 8. The existing underground utility lines shown hereon were taken from
- documents furnished by others and not field verified, therefore, the engineer cannot quarantee the accuracy of same nor that all are shown. The contractor shall expose all underground utility lines in coordination with the owners to his satisfaction and make adjustments to same in the event there are conflicts with new construction.
- Adjusting manhole tops to match grade and slope of the finish paving shall be included in the respective contract unit price for manholes, payment of CONSTRUCTION SITE WORK TESTING which will constitute full compensation for the construction and completion of the manhole, and no additional payment will be allowed or made for 1. adjusting manhole tops.
- 10. The locations and elevation of all service lines are to be determined in the field by owner and/or contractor prior to construction of same.
- 11. All 6" sanitary sewer pipe shall be constructed at a 1.0% minimum slope.
- 12. All 4" sanitary sewer pipe shall be constructed at a 1.2% minimum slope.
- 13. All PVC pressure pipe shall have a minimum 36" cover.
- 14. All PVC water main pressure pipe shall conform to the requirements found in AWWA Standard C-900. latest edition at the time of plan approval. All fittings and required appurtenances shall meet the requirements of the CITY OF TAMPA Water and Wastewater Technical Manual, latest edition, unless otherwise noted herein
- 15. All water main pipe and fittings installed under this project shall be color coded or marked in accordance with subparagraph 62-555.320(21)(b)3, Florida Administrative Codes, using blue as the predominant color.
- 16. Sanitary sewers, force mains and storm sewers should cross under water mains. Sanitary sewers, force mains and storm sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the invert of the upper pipe and the crown of the lower pipe whenever
- 17. When sanitary sewers, force mains and storm sewers must cross a water main with less than 18 inches vertical distance, both the sewer and the water main shall be constructed of ductile iron pipe (DIP) at the crossing. (DIP is not required for storm sewers if it is not available in the size proposed.) Sufficient lengths of DIP must be used to provide a minimum separation of 10 feet between any two joints. All joints on the water main within 20 feet of the crossing must be leak free and mechanically restrained. A minimum vertical clearance of 6 inches must be maintained at the
- Where there is no alternative to sewer pipes crossing over a water main, the criteria for minimum separation of 18 inches between lines and 10 feet between joints shall be required.
- 19. All crossings shall be arranged so that the sewer pipe joints and the water main pipe joints are equidistant from the point of crossing (pipes centered on the crossing).
- 20. Where a new pipe conflicts with an existing pipe, the new pipe shall be constructed of DIP and the crossing shall be arranged to meet the requirements above
- 21. A minimum 10-foot horizontal separation shall be maintained between any
- 22. In cases where it is not possible to maintain a 10-foot horizontal separation between any type of parallel sewer and water main, the water main must be laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer or force main at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.
- 23. Where it is not possible to maintain a vertical distance of 18 inches or a horizontal distance of 10 feet in parallel installations, the water main shall be constructed of DIP and the sewer or the force main shall be constructed of DIP (if available in the size proposed) with a minimum vertical distance of 6 inches. The water main should always be above the sewer. Joints on the water main shall be located as far apart as possible from joints on the sewer or force main (staggered joints).
- 24. All DIP shall be class 50 or higher. Adequate protective measures against corrosion shall be used.
- 25. Bends shall be installed in force main and/or water main to avoid unforeseen conflicts in existing or proposed structures. Thrust blocking may be used in lieu of joint restraint as approved by the Engineer of Record. 26. The joint deflection method shall be used where practical in lieu of installing
- 27. Fire hydrant, gate valve and blow-off valve assemblies shall consist of all pipe, valves, tees, fittings, and any and all other appurtenances comprising a
- complete, working unit. 28. The location of new fire hydrants shall be identified with a blue reflective pavement marker installed on the roadway. The reflective marker shall be located perpendicular to the hydrant, in the center of the lane closest to the
- 29. All valve box assemblies located within roadways or parking areas shall be protected from truck traffic by use of 6" thick reinforced concrete pads poured around valve boxes (see detail).
- 30. All subsurface construction shall comply with the "Trench Safety Act." The Contractor shall insure that the method of trench protection and construction is in compliance with the Occupational Safety and Health Administration (OSHA) regulations.

DWNER'S INSTRUCTIONS FOR MAINTENANCE AND INSPECTION OF STORMWATER

The entire stormwater system should be inspected on at least a semi-annual basis. This should include a visual inspection of the pond, pond banks, rights—of—way with utility companies in order to prevent damage to utility | bleed—down orifices, other control structures, and discharge pipes. These should be kept free of debris and cleaned on a frequency as required to keep them Prior to curb inlet construction, the Engineer shall lay out the back of the I functional, as designed. Mowing/clearing around the structures may be required to

back of the curb and the face of the inlet. Any inlets constructed incorrectly | Wetland plants, if intentionally installed, should be monitored and maintained as by deviating from this sequence of inlet construction shall be the sole | required on the approved construction plans. Areas of littoral shelving, which are responsibility of the Contractor and no additional payment shall be made or required to be vegetated but not intentionally planted, should not be cleared of the wetland plants. These areas should have as high a plant coverage as possible, for maximum water filtration.

> Sediment sumps, if designed and installed, should have sediment removed as necessary to allow them to efficiently remove suspended particles. They should be

lf prolonged ponding persists, i.e., in excess of 72 hours, the owner shall rake or scarify the surface. If required, the soil in the area of ponding shall be removed and replaced with clean sandy, non-cohesive soils. Please check the construction plans to see if written reports on monitoring or

or pooling of water. All large debris shall be removed and disposed of elsewhere.

during each inspection. inverts to which a tie—in is proposed and have Engineer verify the elevation | Specific conditions of all permits may require additional maintenance activities above and beyond those outlined above. Please be aware of all permit conditions as issued by regulatory agencies to ensure permit compliance.

TREE PROTECTION AND TREE REMOVAL Trees to be protected and/or removed are to be determined during construction plan submittal.

- All trees to remain, where indicated on the returned site plan, must be protected by tree protection barricades meeting the minimum standards shown. Protective barricades shall remain in place until land alteration and construction activities are completed. Pruning of a Grand Oak, with the exception of minor pruning, is prohibited unless conducted in accordance with the ANSI—A—300 Pruning Standards, and performed
- by an Arborist certified by the International Society of Arborists (ASCA). A notarized affidavit affirming an ISA Certified Arborist or an ASCA Registered Consulting Arborist will conduct or provide onsite supervision of the pruning shall be submitted to the County prior to the pruning of a Grand Oak. An ISA Certified Arborist or an ASCA Registered Consulting Arborist contracted by a property owner to prune a Grand Oak shall assume full responsibility for all pruning activities determined in non—compliance with standards specified within the Land Development

During land alteration and construction activities, it shall be unlawful to remove vegetation by grubbing or to place soil deposits, debris, solvents, construction

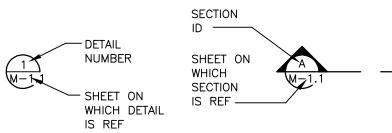
- material, machinery or other equipment of any kind within the dripline of a tree to remain on the site unless otherwise approved by the County. In order to minimize soil erosion, proposed land alteration activities shall not unnecessarily remove existing vegetation and alter existing topography. Adequate protection measures (i.e., hay bales, baffles, sodding and sandbagging) shall be provided, as necessary, to minimize erosion and downstream sedimentation caused
- by surface water runoff on exposed land surfaces All tree roots existing within proposed improvement areas and originating from a protected tree shall be severed clean at the limits of the preserved area as
- identified on the approved construction plans. Utilization of root pruning equipment producing a clean, non-tattered cut is required. All trimming undertaken on a tree to be retained according to the permitted construction plans shall be pruned in accordance with the National Arborist Association (NAA) standards. Failure to conform to these pruning standards may result in a delay in issuance of the Certificate of Occupancy (C/O).
- Minor Pruning: Minor Pruning is the pruning of a tree by the removing branches measured no greater than three inches in diameter at the point of connection to a supporting branch and shall be in accordance to the American National Standards

The Contractor is responsible for coordinating applicable testina with the soils engineer. Tests will be required pursuant with the table below. Upon completion of the work, soils Engineer will submit certifications to the Owner's Engineer stating that all requirements have been met.

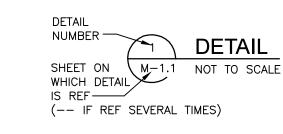
A qualified testing laboratory shall perform all testing necessary to assure compliance of the in place materials as required by these plans and the various agencies. Should any retesting be required due to the failure of any tests to meet the requirements, the Contractor will bear all cost of said retesting.

ITEM	TEST	TEST FREQUENCY
	Optimum moisture/maximum density	Per soil type
Embankment	100% of maximum density as determined by AASHTO T, Method C	One per 500 ft
Utility Trench Backfill	Optimum moisture/maximum density	Per soil type
and Around Structures	100% of maximum density as determined by AASHTO T, Method C	One per 500 ft
	Optimum moisture/maximum density	Per material type
Stabilized Subgrade	98% of maximum density as determined by FM 1—T 180, Method D.	One per 500 ft
	LBR	One per 1000 ft
	Optimum moisture/maximum density	Per material type
Base	98% of maximum density as determined by FM 1—T 180, Method D.	One per 500 ft
	LBR	Per source
	Aggregate Analysis	One per design
	Design Mix	One per type
	Gradation Stability Flow	One per day
Asphaltic Concrete	Properties of in place materials (Marshal)	One per day
Asphaltic Colletete	 Thickness	One per 500 ft
		or 1 per street
	95% of Lab	One per 500 ft
	Density	or 1 per street

TYPICAL SECTION & DETAIL NUMBERING SYSTEM



STANDARD DESIGN INDEX 001 SHEETS 1 AND 2.



SECTION SHEET ON WHICH SECTION IS CUT-

LEGEND & SYMBOLOGY

	LEGEND & SYMBOLOGY						
	EXIS	TING			FIN	ISHED	
DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	SYMBOL	<u>DESCRIPTION</u>	SYMBOL	<u>DESCRIPTION</u>
BUSH	(i)	GUY WIRE ANCHOR	>				
HEDGE	00000		<u> </u>		TOPSOIL	<u>/ 60.0</u>	SPOT ELEVATION
PALM TREE	*	MAIL BOX FOUND IRON PIPE	₽ ©			_ ✓ <u>MEG</u>	MATCH EXISTING
PINE TREE	*	FOUND IRON ROD FOUND PK NAIL & DISK	⊙ <u>&</u>		AGGREGATE	•	GRADE
OAK TREE	•	FOUND CONCRETE MONUME! SET X-CUT SCRIBE	WT •		OR RIP RAP	~~~	FLOW ARROW
SPRINKLER CONTROL VALVE	ICV	AIR RELEASE VALVE	※ ⊗	4 4.			
YARD DRAIN	\oplus	BOLLARD	0	4	CONCRETE	(C)	CLEANOUT
FLAG POLE	<u> </u>	GRANT INLET		4 4			
MITERED END SECTION		SANITARY SEWER MANHOLE	<u></u>				SANITARY MANHOLE
CURB INLET		STORM SEWER MANHOLE	_		ASPHALT		
COLUMN	+10'00		S)		/OI II/LI	— ✓ OR (○)	MITERED END SECTION
GRADE ELEVATION		ELECTRIC METER	EM TSCB			\	
RECLAIMED WATER PAINT MAR	••	TRAFFIC SIGNAL CONTROL B	10x 100g		OOMBACTED EUL	2.0%	GRADE
WATER PAINT MARK	WPM ×	ABBREVIATION LEGEND:			COMPACTED FILL		GNADE
SANITARY PAINT MARK	SPM ×					4:1	
GAS PAINT MARK TELEPHONE PAINT MARK		(C) = CALCULATED DATA			DITCH BOTTOM INLET		SLOPE
FIBER OPTIC PAINT MARK		C = CENTERLINE CLF = CHAIN LINK FENCE					
ELECTRIC PAINT MARK	^	CONC = CONCRETE					
CABLE PAINT MARK	Vr.W	(F) = FIELD DATA					
PULL BOX		F/T = FENCE-TIE FB = FIELD BOOK			<u>LINETYPE</u>		<u>DESCRIPTION</u>
TELEPHONE SINGLE PULL BOX		FCIR = FOUND CAPPED IRON R	ROD				CENTERLINE
TELEPHONE PULL BOX		FIR = FOUND IRON ROD FLOP = FOUND OPEN ENDED PIR	DE			- · · —	SWALE
TELEPHONE SINGLE POLE	Itoni	FPK&D = FOUND PK NAIL AND			· — · — · — · —	- ·	WATER SURFACE
FIBER OPTIC CABLE BOX	FC	FRRS = FOUND RAILROAD SPIK	Œ		60 <i></i>		MAJOR CONTOUR LINE
GAS METER		(L) = LEGAL DESCRIPTION DAT		-	59 <i></i> _		MINOR CONTOUR LINE
WATER METER		OR = OFFICIAL RECORDS BOOK (P) = PLAT DATA (SEE DATA					EDGE OF PAVEMENT
BACK FLOW PREVENTER		PB = PLAT BOOK					CURB & GUTTER
DETECTOR CHECK VALVE		PF = PLASTIC FENCE PG = PAGE		-			STORM SEWER
DOUBLE DETECTOR CHECK VALUE WATER MANHOLE	- 12 00	R/W = RIGHT-OF-WAY					C/L ROADWAY
FIRE HYDRANT	₩ ☆	SÉC = SECTION					,
CABLE TV BOX		SIR = SET IRON ROD & CAP SPK&D = SET PK NAIL AND DI	ISC		-		SANITARY SEWER
LIGHT POLE	¤	SR = STATE ROAD	100		WM	— ww——	WATER MAIN
POWER POLE	•	WF = WOOD FENCE			RC RC		RECLAIMED WATER MAIN
<u>LINETYPE</u>		<u>DESCRIPTION</u>			WF WF-		WOOD FENCE
		PROPERTY LINE					TREE-BARRICADE
		RIGHT-OF-WAY (EXISTING) EASEMENT LINE			– . – . – . – . – .		ROOT PRUNE
		WETLAND JURISDICTION LIN WETLAND SETBACK LINE	ΙE	-00-		<u> </u>	SILT FENCE
60		MAJOR CONTOUR LINE TOP OF BANK OR TOE OF	SLOPE			<u>م</u>	FLOATING TURBIDITY
		EDGE OF PAVEMENT OR C			~		BARRIER
		EDGE OF DIRT/GRAVEL RO					
		•	., .U				
wm	- WM	EXISTING WATER MAIN					
FM	- FM	EXISTING FORCE MAIN					

ABBREVIATIONS WITHIN THIS PLAN SET ARE IN ACCORDANCE WITH THE STANDARD ABBREVIATIONS SHOWN IN THE FDOT



CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT PLANNING AND DESIGN DIVISION

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TAMPA, FL 33602

CIVIL CONSULTANT

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FIRE STATION 19 7910 INTERBAY BLVD. TAMPA, FLORIDA

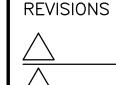
100 EAST MADISON STREET

DPW FILE NUMBER

DPW NUMBER

ISSUE DATE MAY 31, 2013

DRAWN BY



CONSTRUCTION DOCUMENTS

Elevations shown within this plan set are based on North American Vertical Datum (NAVD) NAVD 88 = NGVD 29 - 0.86'



JESUS A. MERLY P.E. NO. 58113 FLORIDA PROFESSIONAL ENGINEER

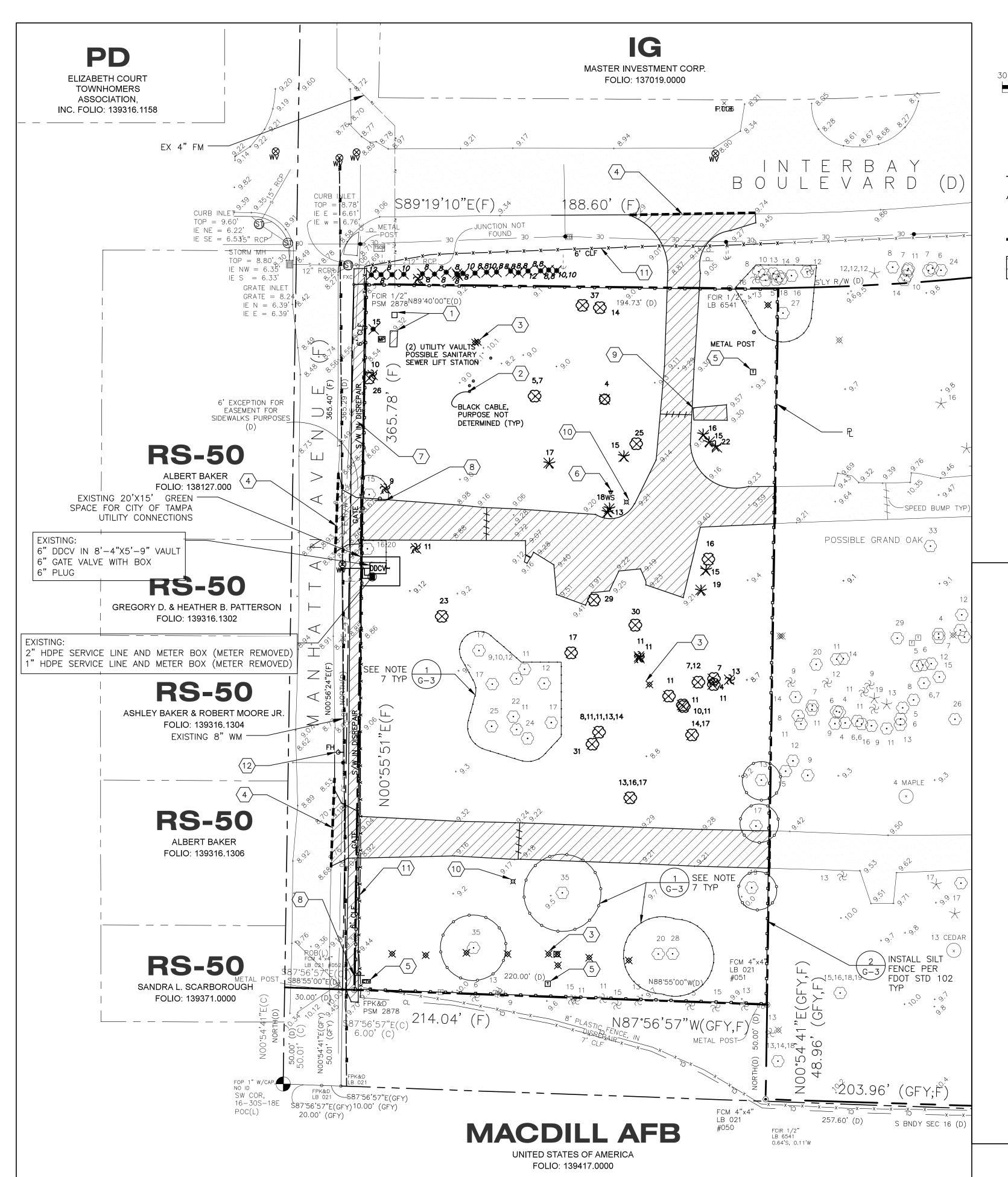
Professional Civil Engineering Services

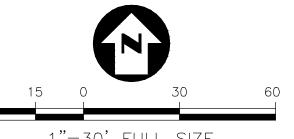
CONSTRUCTION NOTES LEGEND 8

SYMBOLOGY

SHEET No:

G-2





1"=30' FULL SIZE 1"=60' 11' X 17'

DEMOLITION LEGEND

KEY NOTE — SILT FENCE TURBIDITY BARRIER

--- SAWCUT LINE

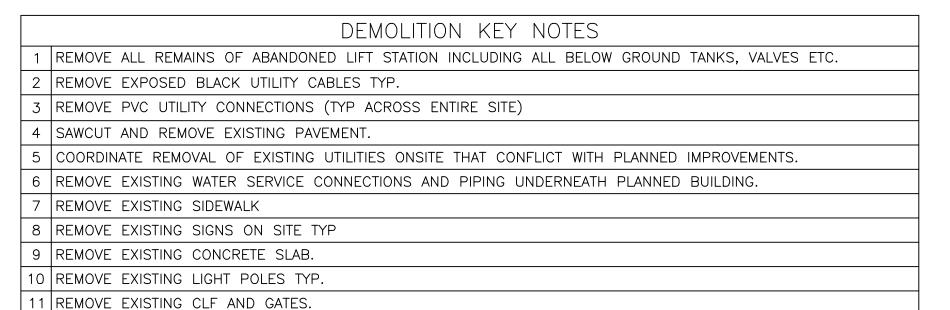
PAVEMENT AND/OR STRUCTURE REMOVAL

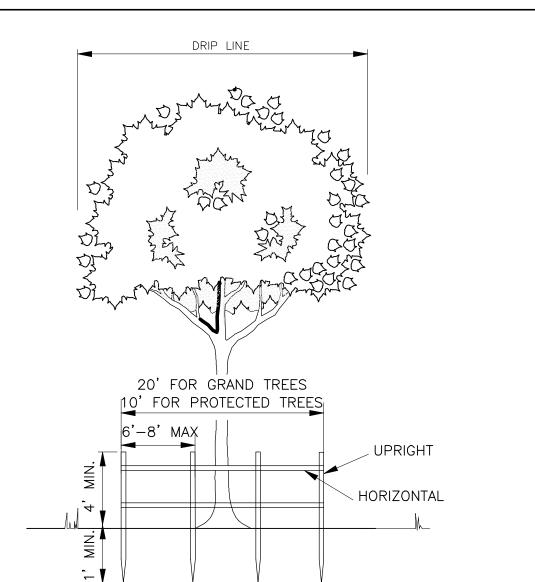
TREE REMOVAL

DEMOLITION NOTES:

12 REMOVE AND RELOCATE FIRE HYDRANT. SEE SHEET C-3.

- 1. SITE CONSISTS OF AN ABANDONED MOBILE HOME PARK. THERE IS THE POTENTIAL FOR EXISTING IMPROVEMENTS THAT ARE NOT SHOWN ON THE SURVEY INCLUDING CONCRETE SLABS, UTILITY CONNECTIONS, ETC. CONTRACTOR SHALL INCLUDE REMOVAL OF ANY IMPROVEMENTS NOT SHOWN ON THE SURVEY AT NO ADDITIONAL COST. CONTRACTOR SHALL PERFORM A SITE VISIT PRIOR TO SUBMITTING A BID TO EVALUATE EXISTING CONDITIONS ON-SITE.
- 2. CONTRACTOR SHALL MAINTAIN SILT FENCING AND TREE BARRICADES IN PROPER FUNCTIONING CONDITION THROUGHOUT CONSTRUCTION.
- 3. INSTALL OFFSITE SOIL TRACKING PREVENTION DEVICE AT CONSTRUCTION ACCESS/INGRESS. SEE DETAIL 2 SHEET G-3.
- 4. ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
- 5. ALL DISTURBED AREAS SHALL BE SODDED.
- 6. CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH FDOT TRAFFIC CONTROL STANDARD INDICES 600, 602 AND 605.
- 7. REFER TO LANDSCAPE DRAWINGS FOR TREE PROTECTION, TREE BRANCH PRUNING AND TREE PRUNING REQUIREMENTS.

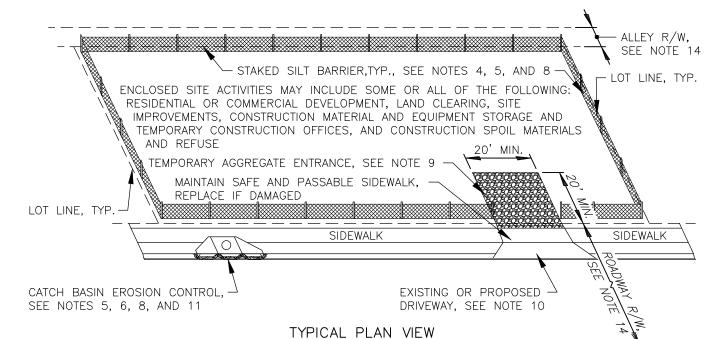




<u>SPECIFICATIONS - WOOD BARRIER</u>

- 1. MINIMUM RADIUS TO BE PROTECTED: A. HARDWOODS - 2/3 DRIPLINE B. CONIFERS & SABAL PALMS - ENTIRE DRIPLINE.
- 2. UPRIGHTS NO LESS THAN 2" X 2" LUMBER.
- 3. HORIZONTALS NO LESS THAN 1" X 4" LUMBER.
- 4. BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED TREES AND PALMS, AND INSPECTED BY CITY REPRESENTATIVE BEFORE CONSTRUCTION BEGINS.

tree barricade detail NOT TO SCALE



- 1. NON-CONFORMANCE WITH THE ITEMS LISTED OR SHOWN ON THIS DETAIL MAY RESULT IN A "STOP WORK"
- 2. THE PURPOSE OF THIS DETAIL IS TO ASSIST THE DEVELOPER, BUILDER, AND/OR CONTRACTOR TO MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) 3. THIS DETAIL IS APPLICABLE FOR ALL CONSTRUCTION SITES AS DESCRIBED ABOVE OF LESS THAN ONE (1) ACRE; THOSE SITES GREATER THAN ONE (1) ACRE ALSO MUST OBTAIN COVERAGE UNDER AN NPDES
- 4. THE SILT BARRIER SHALL BE INSTALLED ONE FOOT INSIDE THE PROPERTY LINE OR TWO FEET FROM THE SIDEWALK AS SHOWN ABOVE. FOR SILT BARRIER REQUIREMENTS AND INSTALLATION REQUIREMENTS, SEE STANDARD DETAIL-STAKED SILT BARRIER
- 5. INSPECT AND MAINTAIN ALL EROSION CONTROL DEVICES DAILY AND/OR AFTER A RAINFALL. . FOR CATCH BASIN FILTER REQUIREMENTS, SEE FDOT STANDARD INDEX 102.
- 7. EXISTING GRASS VEGETATION SHALL BE MAINTAINED AT A 10 INCH HEIGHT OR LESS 8. ALL SOIL EROSION CONTROL DEVICES MUST REMAIN IN PLACE UNTIL NEW VEGETATION IS ESTABLISHED.
- ALL DISTURBED AREAS SHALL BE SODDED AFTER FINAL GRADING. 9. TEMPORARY AGGREGATE ENTRANCE SHALL BE A MINIMUM 6" THICK OF STANDARD GRADATION SIZE #1 OR #2 RANGE AS PER FDOT SECTION 901, AND SHALL BE COMPACTED. AGGREGATE SHALL BE QUARTZ OR
- RUSHED GRANITE. LIMEROCK, DOLOMITE OR SANDSTONE SHALL NOT BE ACCEPTABLE 10. IF THERE IS NO EXISTING DRIVEWAY OR AN ALTERNATE INGRESS/EGRESS IS TO BE USED DURING CONSTRUCTION, THE METHOD OF ACCESS SHALL CONFORM TO THE "TEMPORARY AGGREGATE ENTRANCE"
- AS DESCRIBED ABOVE. 11. REGULARLY REMOVE COLLECTED SEDIMENT AND DEBRIS FROM THE SILT BARRIERS AND GUTTER FLOW LINE. 12. FOR ALL SAND AND SOIL STOCKPILES DUST/EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. 13. KEEP CONSTRUCTION SITE LITTER/DEBRIS, AND LEAKING CONTAINERS IN ORDERLY CONTAINMENT AREAS.
- 14. SWEEP ENTRANCE AND ADJACENT ROADWAY WEEKLY TO KEEP FREE OF CONSTRUCTION DEBRIS. 15. SWEEP PAVED SURFACES ONLY. DO NOT WASH DOWN UNTIL SITE IS FINISHED. 16. SINGLE FAMILY INFILL LOTS MAY REQUIRE SILT FENCE AS ORDERED OR DIRECTED

SITE DEVELOPMENT AND/OR CONSTRUCTION STAGING

SITE EROSION CONTROL DETAIL



CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT PLANNING AND DESIGN DIVISION

306 E. JACKSON STREET 4 NORTH TAMPA, FLORIDA 33602 p: 813. 274. 8456 - f: 813. 274. 8080 url: www.tampagov.net

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CIVIL CONSULTANT

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LANDSCAPE CONSULTANT

DAVID CONNER & ASSOCIATES 100 EAST MADISON STREET SUITE 200 TAMPA, FL 33602

FIRE STATION 19 7910 INTERBAY BLVD. TĂMPA, FLORIDA

DPW FILE NUMBER

DPW NUMBER

ISSUE DATE

MAY 31, 2013

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REVISIONS

Elevations shown within this plan set are based on North American Vertical Datum (NAVD)

NAVD 88 = NGVD 29 - 0.86'

CONSTRUCTION DOCUMENTS

FBPR Certificate of Authorization No.: 26929 12315 Wycliff Pl Tampa, FL 33626

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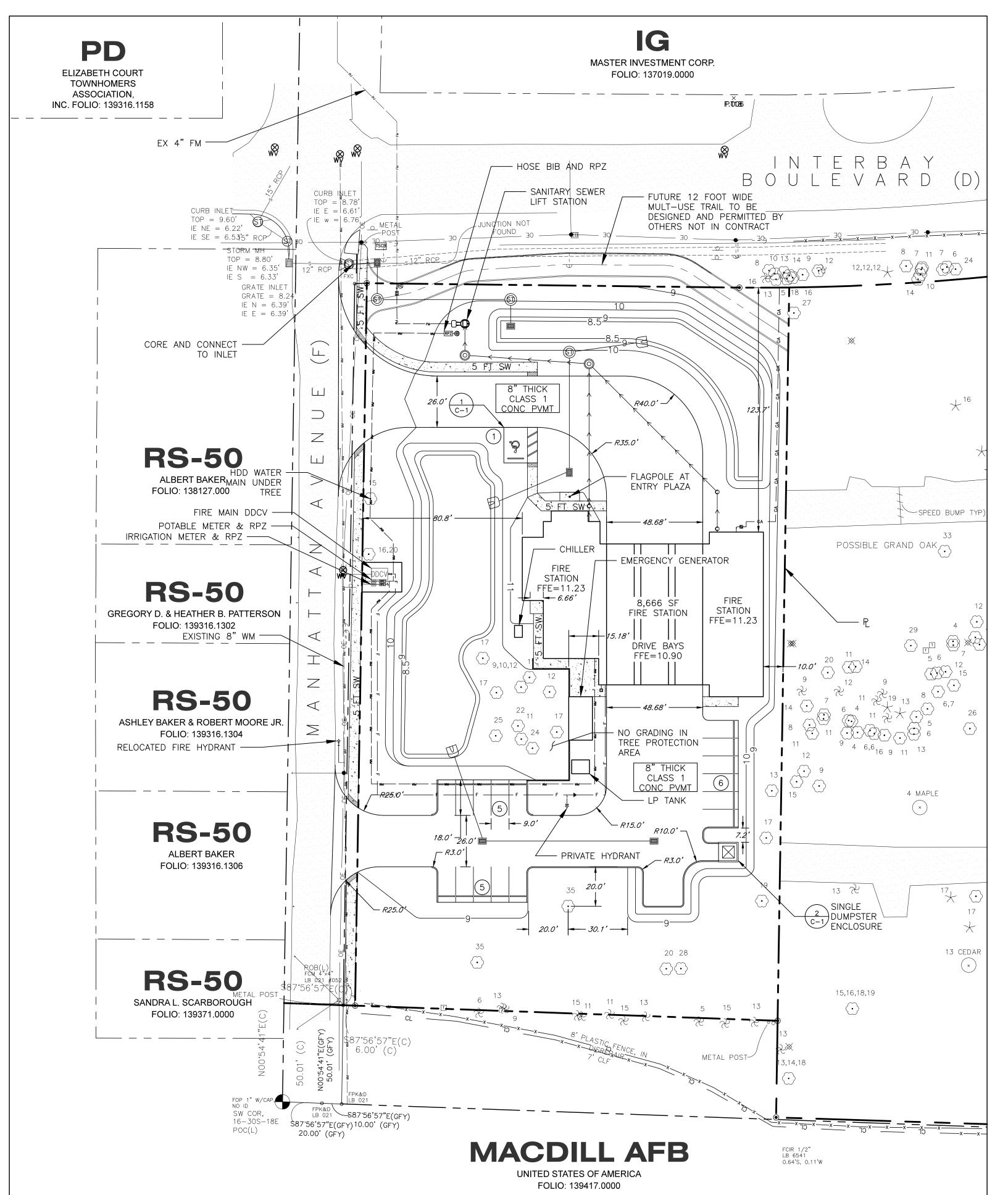
JESUS A. MERLY P.E. NO. 58113 FLORIDA PROFESSIONAL ENGINEER

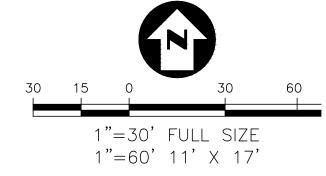
EXISTING CONDITIONS/

DEMOLITION PLAN

SHEET No:

G-3





SITE DATA TABL	 _E			
Total Contiguous Area	78,790	sf		
Total Contiguous Area	1.81	acres		
Proposed Bldg GFA	8,666	sf		
Finished Floor Elevation	11.5±	ft NAVE		
Number of Floors	1	story		
 Current Building Use	1	N/A		
Proposed Building Use		Station itution)		
Number of Units (Residential Use)	,	N/A		
Density (Residential Use)	1	N/A		
Minimum Setback Front	10	ft		
Minimum Setback Side	0	ft		
Minimum Setback Rear	0	ft		
Assumed Property Lines		 N/A		
Parking Required	12	spaces		
Parking Provided	17	spaces		
H/C Parking Required	1	spaces		
H/C Parking Provided	1	spaces		
Existing Site Impervious Area	19,831	sf		
Proposed Site Impervious Area		sf		
Existing Paved VUA	11,992	sf		
Proposed Paved VUA		sf		
Required Mulit—Family/Townhouse Green Space	N/A	sf		
Provided Mulit—Family/Townhouse Green Space	N/A	sf		
Current Zoning	RN	И — 16		
Land Use	MULTI	MULTI-FAMILY		
Folio Number	1370	137037.0000		
Floor Area Ratio	1	11.0%		
FEMA Panel Number	1205	12057C0457H		
Potable Water	City c	City of Tampa		
Sanitary Sewer	City c	City of Tampa		
Fire Protection	City c	of Tampa		

SITE PLAN NOTES:

Stormwater

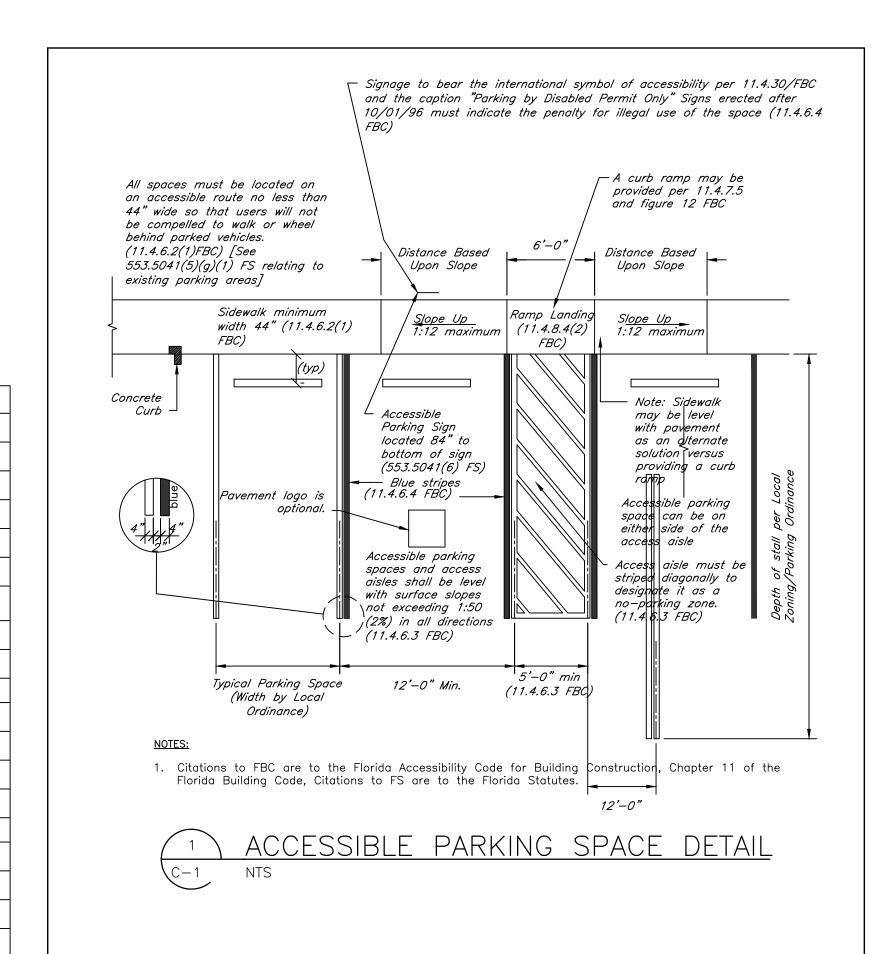
Solid Waste

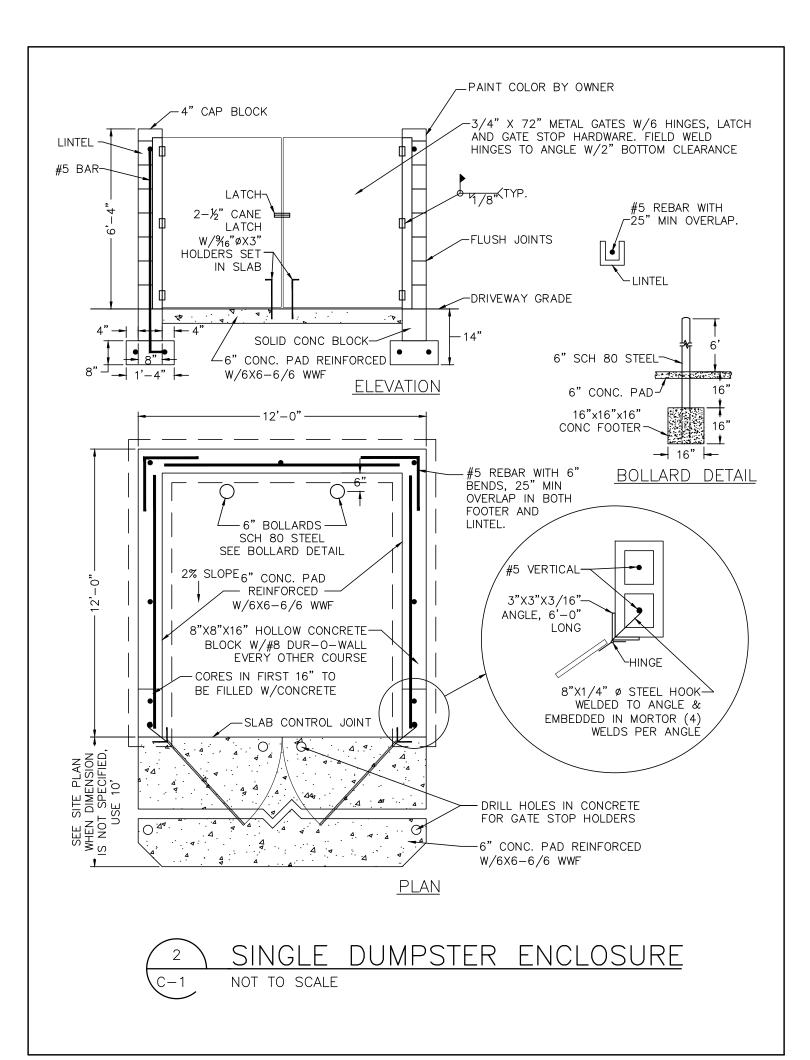
1. Fire flow is provided by an existing hydrant west of the site on Manhattan Ave. A private hydrant is also

City of Tampa

City of Tampa

- 2. This is not a phased project.
- 3. There are no wetlands on—site.
- 4. Typical parking space size is 9' by 18'. ADA space size is 12' by 18'. Cross aisle width is 26' minimum.
- 5. The subject property is located in flood zone AE according to Flood Insurance Rate Map Community Panel No. FEMA 12057C0457H bearing an effective date of August 28, 2008. The base flood elevation is 9.0 NAVD.







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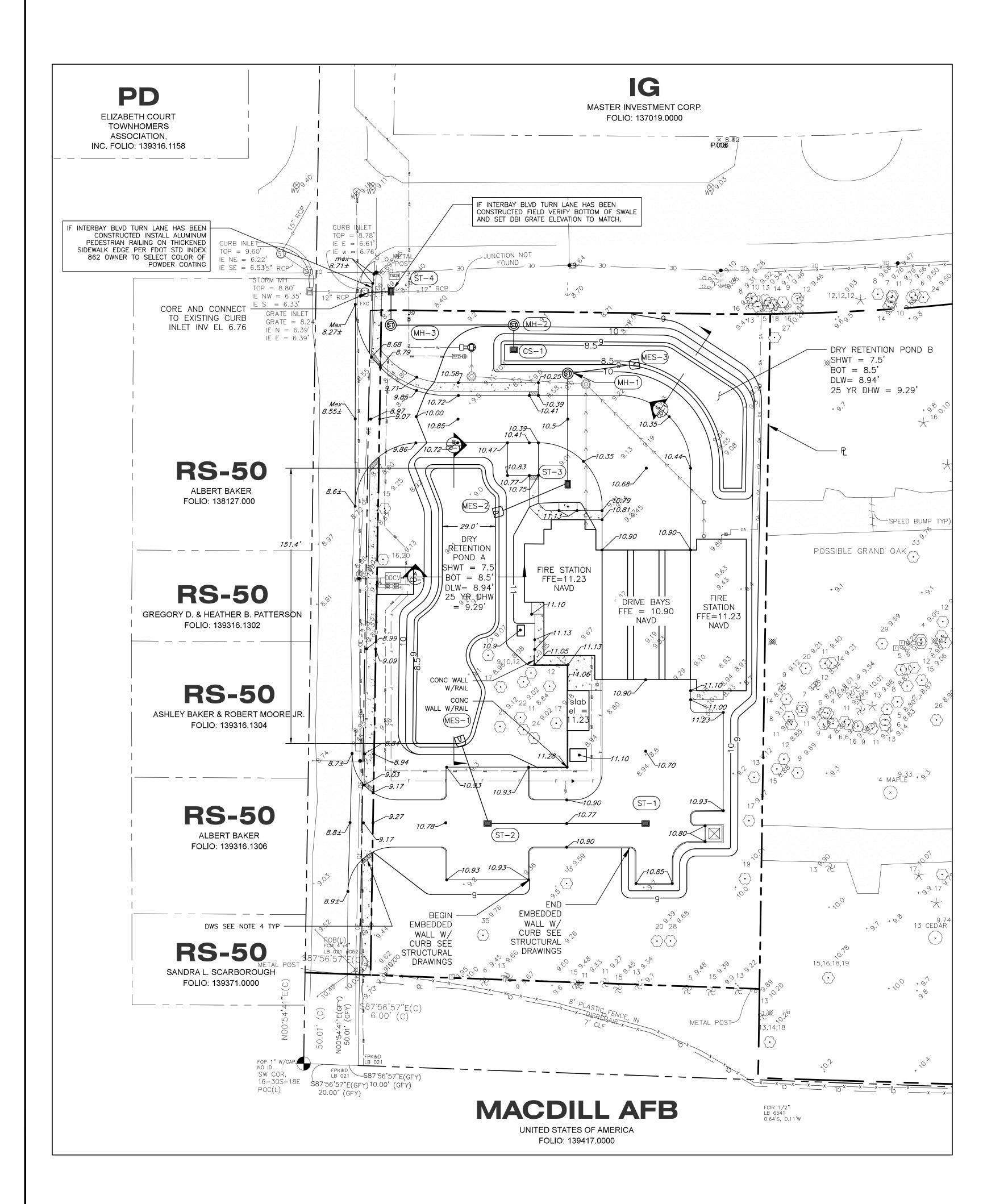
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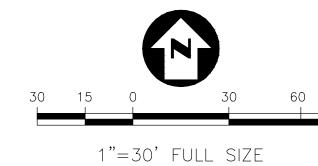
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MASTER SITE PLAN

SHEET No:

C-1





PAVING, GRADING AND DRAINAGE NOTES:

- UNLESS DESIGNATED OTHERWISE ALL SPOT ELEVATIONS REFERENCE FINISHED PVMT ELEVATIONS. BACK OF CURB ELEVATIONS SHALL BE EQUAL TO THE FINISHED PAVEMENT ELEVATION PLUS THE HEIGHT OF THE PLANNED CURB.
- 2. CENTER OF CONCRETE BUMPBER GUARD (WHEEL STOP) SHALL BE SET 30" FROM END OF PARKING STALL.
- 3. UNLESS DESIGNATED OTHERWISE ALL CURB SHOWN SHALL BE TYPE D PER FDOT STD INDEX 300.
- 4. DETECTABLE WARNING SURFACE (DWS) SHALL CONSIST OF RAISED TRUNCATED DOMES IN ACCORDANCE WITH FDOT DESIGN STANDARD INDEX 304. THE DWS SYSTEM SHALL CONSIST OF VANGUARD EPOXY SYSTEM, OR SIMILAR PRODUCT ON THE FDOT QUALIFIED PRODUCT LIST FOR SPECIFICATION SECTION 527. COLOR SHALL BE RED.

	STORM DRAINAGE STRUCTURE SCHEDULE						
STRUCTURE	TYPE	INV (N)	INV (S)	INV (W)	INV (E)	RIM OR GRT EL	DOWNSTREAM PIPE
ST-1	TYPE C DBI FDOT STD INDEX 232			7.70		10.51	12"X18" ERCP
ST-2	TYPE C DBI FDOT STD INDEX 232	7.60			7.60	10.55	12"X18" ERCP
MES-1	MES FDOT STD INDEX 272 SHEET 4 OF 6	7.50					CONST SUMP
MES-2	MES FDOT STD INDEX 272 SHEET 4 OF 6				7.50		CONST SUMP
ST-3	TYPE C DBI FDOT STD INDEX 232	7.70		7.70		10.26	12"X18" ERCP
MH-1	TYPE P-7 MANHOLE FDOT STD INDEX 200 AND 201		7.60		7.50	10.00	12"X18" ERCP
MES-3	MES FDOT STD INDEX 272 SHEET 4 OF 6	7.50			7.50		CONST SUMP
CS-1	CONTROL STRUCTURE		SEE	SHEET CI	D-1		
MH-2	TYPE P-7 MANHOLE FDOT STD INDEX 200 AND 201		7.06	7.06		9.50	12"X18" ERCP
MH-3	TYPE P-7 MANHOLE FDOT STD INDEX 200 AND 201	6.96			6.96	9.00	12"X18" ERCP
ST-4	TYPE C DBI FDOT STD INDEX 232		6.86	6.86		8.0±	12"X18" ERCP

CONCRETE PAVEMENT NOTES AND SPECIFICATIONS

CONVENTIONAL CONCRETE NOTES

GENERAL NOTES

- 1. USE AMERICAN CONCRETE INSTITUTE (ACI) CERTIFIED FLATWORK FINISHER.
- 2. USE ACI 330 GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS.
- 3. USE ACI 330.1 STANDARD SPECIFICATION FOR UNREINFORCED CONCRETE PARKING LOTS.
- 4. ALL CONCRETE USED IN PARKING LOT, UNLESS OTHERWISE INDICATED, SHALL HAVE A COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
- 5. PREPARE THE SUBGRADE IN ACCORDANCE WITH GEOTECHNICAL ENGINEEER'S RECOMMENDATIONS FOR RIGID PAVEMENTS. SUBGRADE SOIL DENSITY TESTING MUST BE COMPLETED AND VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
- IMPORTED SOIL USE FOR BACK FILL SHOULD BE FREE OF HEAVY CLAY, SILTS, STONES, PLANT ROOT OR OTHER FOREIGN MATERIAL GREATER THAN 17 IN DIAMETER IN ORDER TO ACHIEVE ADEQUATE COMPACTION AROUND ANY FIXED OBJECT IN GROUND. ALTERNATE WILL BE TO USE FLOWABLE FILL.
- 7. CURE CONCRETE IMMEDIATELY AFTER FINISHING OPERATION IS COMPLETED BY USING ONE OF THE FOLLOWING METHODS: WATER, PIGMENTED WATER-BASED CURING COMPOUND OR VISQUEEN AND BURLAP.

COMPACTED SUBGRADE

8. SUBGRADE FOR PAVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR FOR A MINIMUM DEPTH OF 12 INCHES.

SUBBASE

9. PER ACI 330, IMPORTED SUBBASE MATERIAL OR TO CHEMICALLY TREAT THE SUBGRADE MAY BE USED TO IMPROVE THE CONTRACTOR'S WORKING PLATFORM OR TO REDUCE SUBGRADE SUSCEPTIBILITY TO PUMPING AND EROSION.

JOINT SPACING DETERMINATION

10. KEEP ALL JOINTS CONTINUOUS.

- 11. CONTROL JOINTS SHALL BE FORMED OR SAWED WITHIN 12 HOURS FROM TIME OF PLACEMENT.
- 12. MAXIMUM SPACING IS 15 FEET.

- 13. ALL CURBING SHALL BE CONSTRUCTED OF CONCRETE THAT WILL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS
- 14. ALL CONCRETE CURBS SHALL BE SPACED WITH A FULL—DEPTH, ½" WIDTH ISOLATION JOINT MATERIAL PRIOR TO PLACEMENT OF ADJACENT CONCRETE PAVEMENT
- 15. THERE SHALL BE CONTROL JOINTS, EITHER TOOL OR SAW-CUT, MATCH PAVEMENT JOINTS, UNLESS OTHERWISE SPECIFIED; JOINTS SHALL BE FORMED WITHIN 12 HOURS OF PLACEMENT.
- 16. ALL CURB ENDS THAT DO NOT TIE INTO OTHER FACILITIES SHALL TRANSITION DOWN TO PAVEMENT GRADE IN 24 INCHES.
- 17. CONSTRUCTION JOINT SHALL BE TIED WITH A No.4 TIE BAR EXTENDED 6 INCHES INTO EACH CURB SECTION AND SHALL BE SPACED WITH A FULL-DEPTH 1" WIDTH ISOLATION JOINT MATERIAL.



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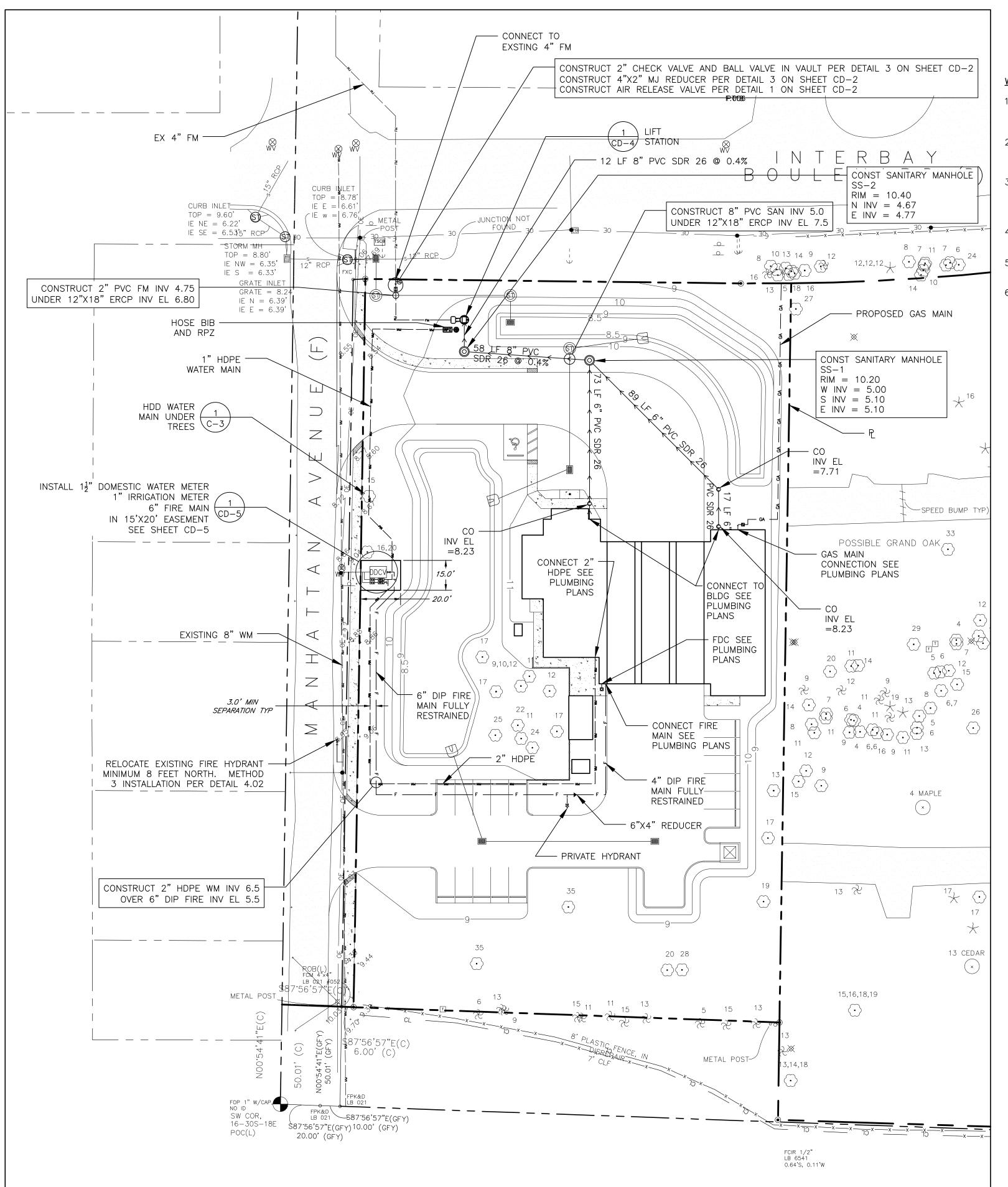
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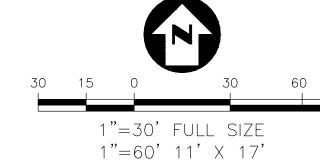
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PAVING, GRADING AND DRAINAGE PLAN

SHEET No:

C-2





WATER NOTES

- 1. ALL WATER SYSTEM WORK SHALL CONFORM WITH THE CITY OF TAMPA "TAMPA WATER DEPARTMENT TECHNICAL MANUAL" DATED MAY 2002.
- 2. ALL SANITARY SEWER WORK SHALL CONFORM WITH APPLICABLE AGENCY STANDARDS AND SPECIFICATIONS, LATEST EDITION THEREOF.
- 3. WATER SERVICE LINE SHALL BE HDPE IN ACCORDANCE WITH THE CITY OF TAMPA TAMPA WATER DEPARTMENT TECHNICAL MANUAL MATERIAL SPECIFICATIONS FOR HIGH DENSITY POLYETHYLENE TUBING.
- 4. HDPE SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER.
- 5. FOR PARALLEL AND CROSSING REQUIREMENTS SEE NOTES ON SHEET G-2.
- 6. CONTRACTOR SHALL VERIFY EXISTING WATER MAIN MATERIAL PRIOR TO PURCHASING TAPPING MATERIALS.

FIXTURE TABLE					
FIXTURE	FIXTURE QTY VALUE (35 PSI)				
BATHTUB	4	6	24.0		
KITCHEN SINK	1	1.6	1.6		
OTHER SINK	2	3	6.0		
URINAL WALL FLUSH VALVE	2	12	24.0		
SHOWER	5	1.8	9.0		
WATER CLOSET-TANK	5	3	15.0		
DISHWASHER	1	1.5	1.5		
WASHING MACHINE	1	4	4.0		
HOSE CONNECTION	5	6	30.0		
LAVATORY	5.5				
COMBINED FIXTURE VALUE	L	120.6			
REQUIRED METER			1 1/2"		

CITY OF TAMPA STANDARD WASTEWATER SERVICE NOTES:

- A. AT LEAST 3 WEEKS PRIOR TO CONSTRUCTION, THE DEVELOPER'S REPRESENTATIVE SHALL NOTIFY THE RESIDENT ENGINEER AND THE CITY OF TAMPA, DEPARTMENT OF SANITARY SEWERS FIELD ENGINEERING OFFICE (242-5363) AND SUPPLY THEM WITH ALL THE REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE AND OTHER INFORMATION AS REQUIRED. THE FIELD ENGINEERING OFFICE SHOULD ALSO BE CONTACTED 5 DAYS PRIOR TO CONSTRUCTION TO ENSURE AVAILABILITY OF INSPECTION PERSONNEL. ANY WORK PERFORMED PRIOR TO NOTIFYING FIELD ENGINEERING OR WITHOUT A DEPARTMENT INSPECTOR PRESENT MAY BE SUBJECT TO REMOVAL AND REPLACEMENT.
- B. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS AND A PRESSURE TEST ON ALL FORCE MAINS (AS APPLICABLE) IN ACCORDANCE TO CITY OF TAMPA REGULATIONS. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE CITY OF TAMPA DEPARTMENT OF SANITARY SEWERS FOR APPROVAL. THE SCHEDULING. COORDINATION AND NOTIFICATION TO ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
- C. ONE OR MORE OF THE FOLLOWING CERTIFICATES/SHOP DRAWINGS, DEPENDING ON THE TYPE OF CONNECTIONS, WILL BE REQUIRED. THIS SHOULD BE REVIEWED WITH THE DESIGN DIVISION PRIOR TO APPROVAL FOR CONSTRUCTION AND SUBMITTED IN ACCORDANCE WITH THE ABOVE NOTE #1.
- a) DIP/PVC CERTIFICATE OF MANUFACTURE.
- b) MANHOLE SHOP DRAWINGS AND STRENGTH REPORT.
- :) FRAME AND COVER SHOP DRAWINGS.
- d) FLEXIBLE COUPLING SHOP DRAWINGS. e) CASING PIPE CERTIFICATE.
- JACKING PIT DETAIL.
-)) CRUSHED STONE SUBMITTAL.
- h) VALVE SHOP DRAWING.
- MANHOLE DROP CONNECTION DETAIL.
- D. THE CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THE FOLLOWING HAS BEEN
- a) FINAL INSPECTION IN CONJUNCTION WITH DEPARTMENT PERSONNEL COMPLETED.
- b) AS-BUILTS HAVE BEEN SUBMITTED AND ACCEPTED.
- c) ALL NECESSARY TESTING COMPLETED AND CERTIFIED.
- d) PAYMENT OF ALL CAPACITY FEES.
- e) ISSUANCE OF FDEP CERTIFICATION OF COMPLETION APPROVAL (IF APPLICABLE)

SANITARY SEWER DESIGN FLOW CALCULATIONS						
(per FAC 64E	-6.008)					
TYPE OF ESTABLISHMENT	TYPE OF ESTABLISHMENT GPD/ LINITS CDD					
PUUBLIC INSTITUTION	UNIŤ	UNITS	GPD			
(a) per person	12	1200	GPD			
(b) add per meal prepared	5	36	180	GPD		
A	1380	GPD				
MAX DAILY FLOW = ADF X 3.0 PEAK FACTOR 41°						
PEAK HOURLY FLOW = ADF GPD)/24 HR,	/60 MIN =	2.9	GPM		

EXCAVATIONS

When deep soil cuts are made over the entire area occupied by the roots, it is difficult to main train the health of trees. Lowering the grade 6-8 inches will remove a major portion of the top soil

and most of the feeder roots. A loss of 1/2 to 1/3of these surface roots will kill the tree. To preserve the tree and avoid root damage

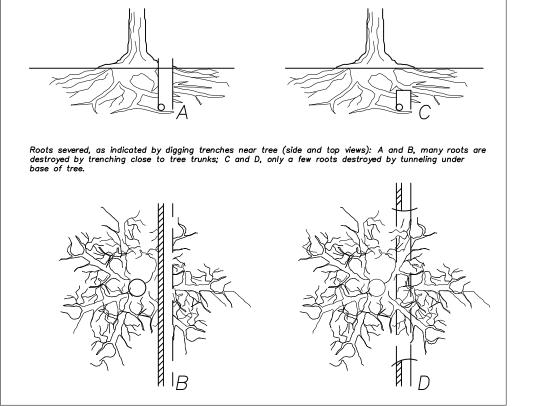
when cutting a grade, curve or zig-zag around the roots as much as possible. The area of the dripline Water frequently until the tree becomes should be sufficient. Top soil is an extremely important factor in the survival of a tree.

Deep grade changes will require a retaining wall. The wall should be porous to allow for aera tion. Construction is similar to dry well.

Top pruning will aid in retaining tree vigor when roots are cut, and fertilization will stimulate new growth.

established. Severe root damage will reguire 6 months to a year for the tree to fully recover.

Oaks, maples, bays, and conifers are among the Roots should be cut cleanly. Large roots species most susceptible to grade changes. should be promptly treated with a wound dressing.



Trees can be protected when excavation for water and sewer lines is performed. Start by considering the location of the trenches. If the trenches cannot be routed around the trees and outside the dripline, the next best

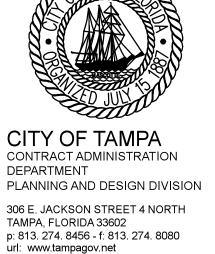
thing is to tunnel under them.

for this purpose. Tunneling under the trees has been shown to minimize root kill. Tun neling should be offset to one side of the trunk to prevent damage to the main tap



TREE PROTECTION FOR UTILITY EXCAVATIONS

SHEET No:



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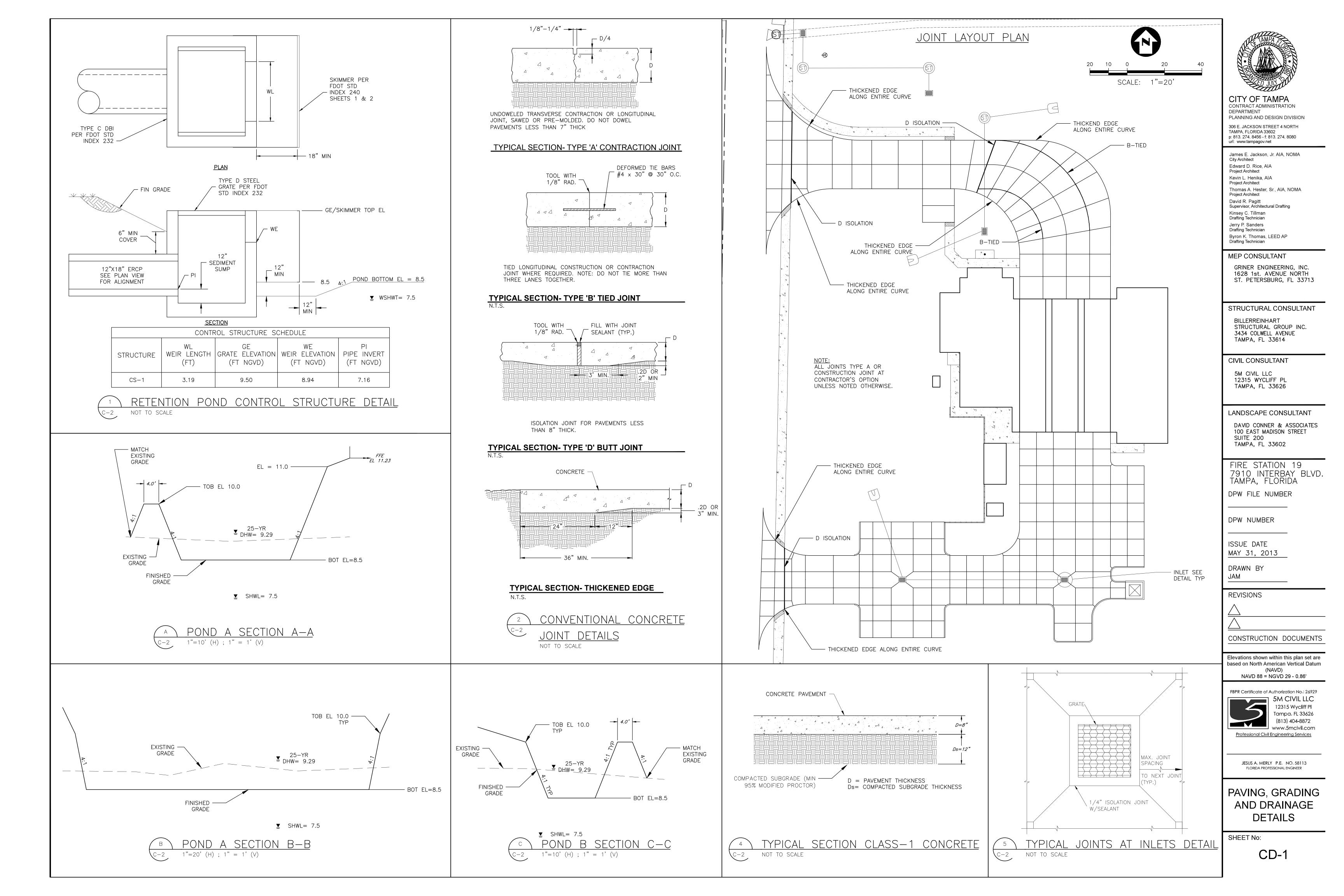


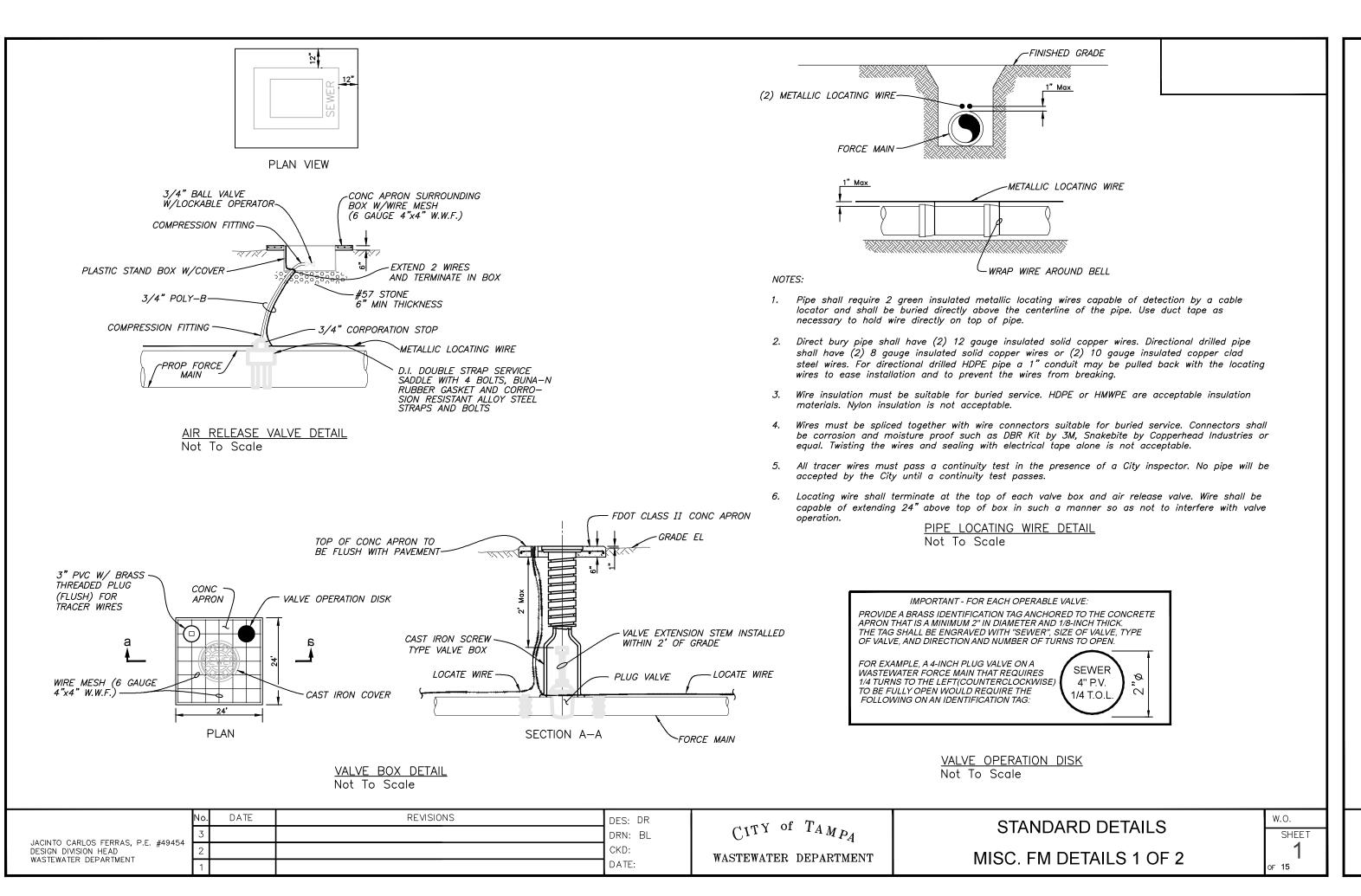
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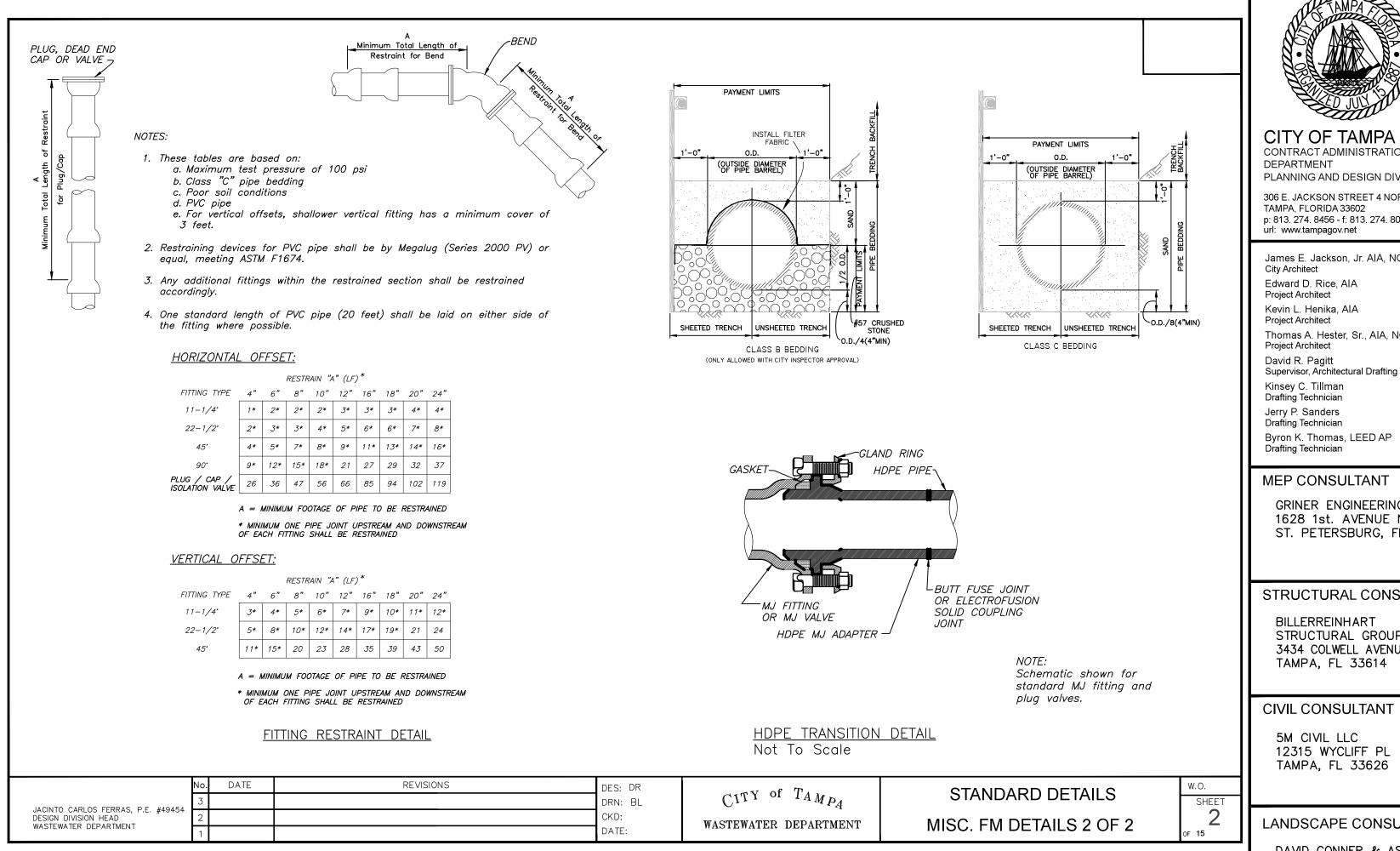
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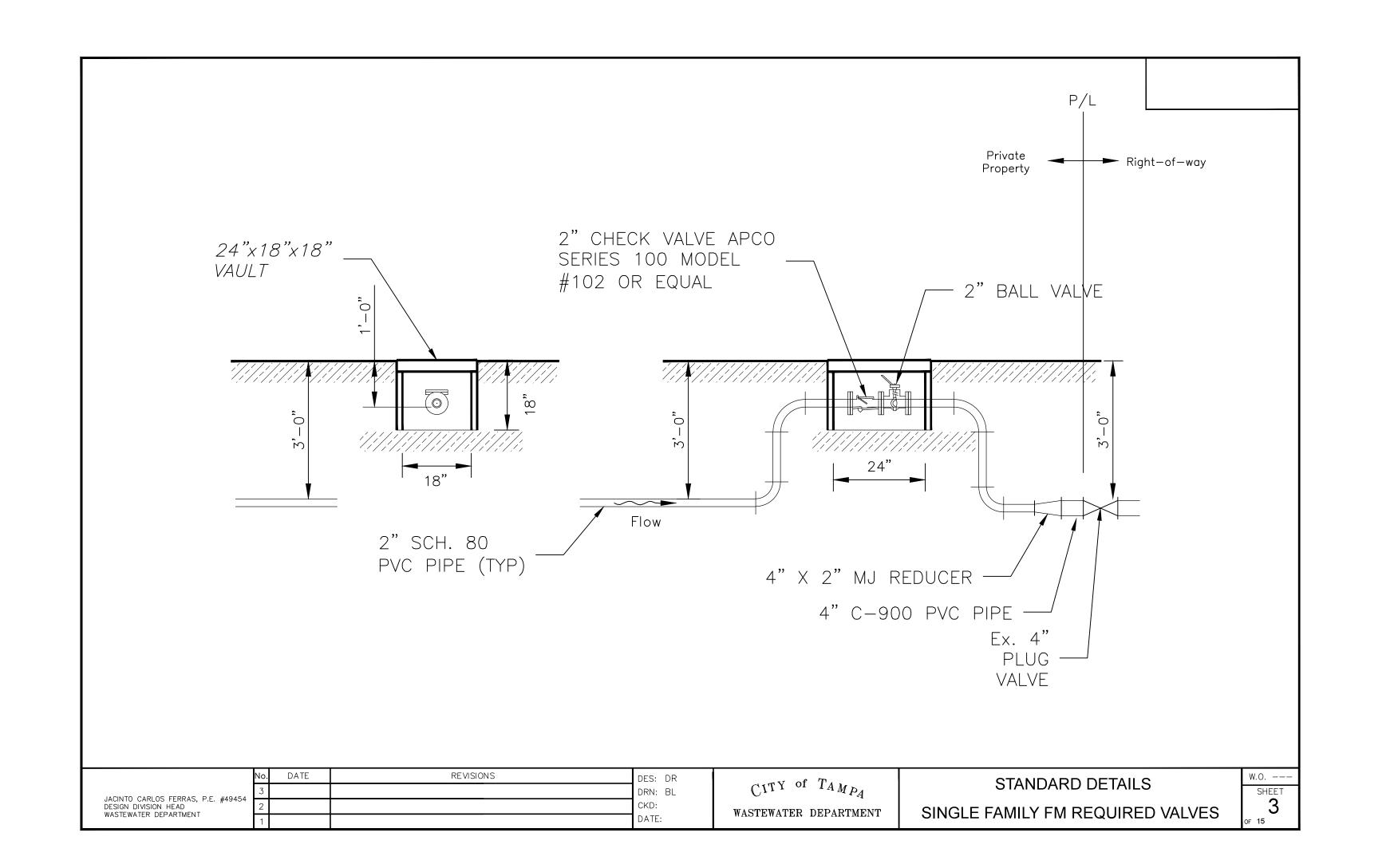
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UTILITY PLAN











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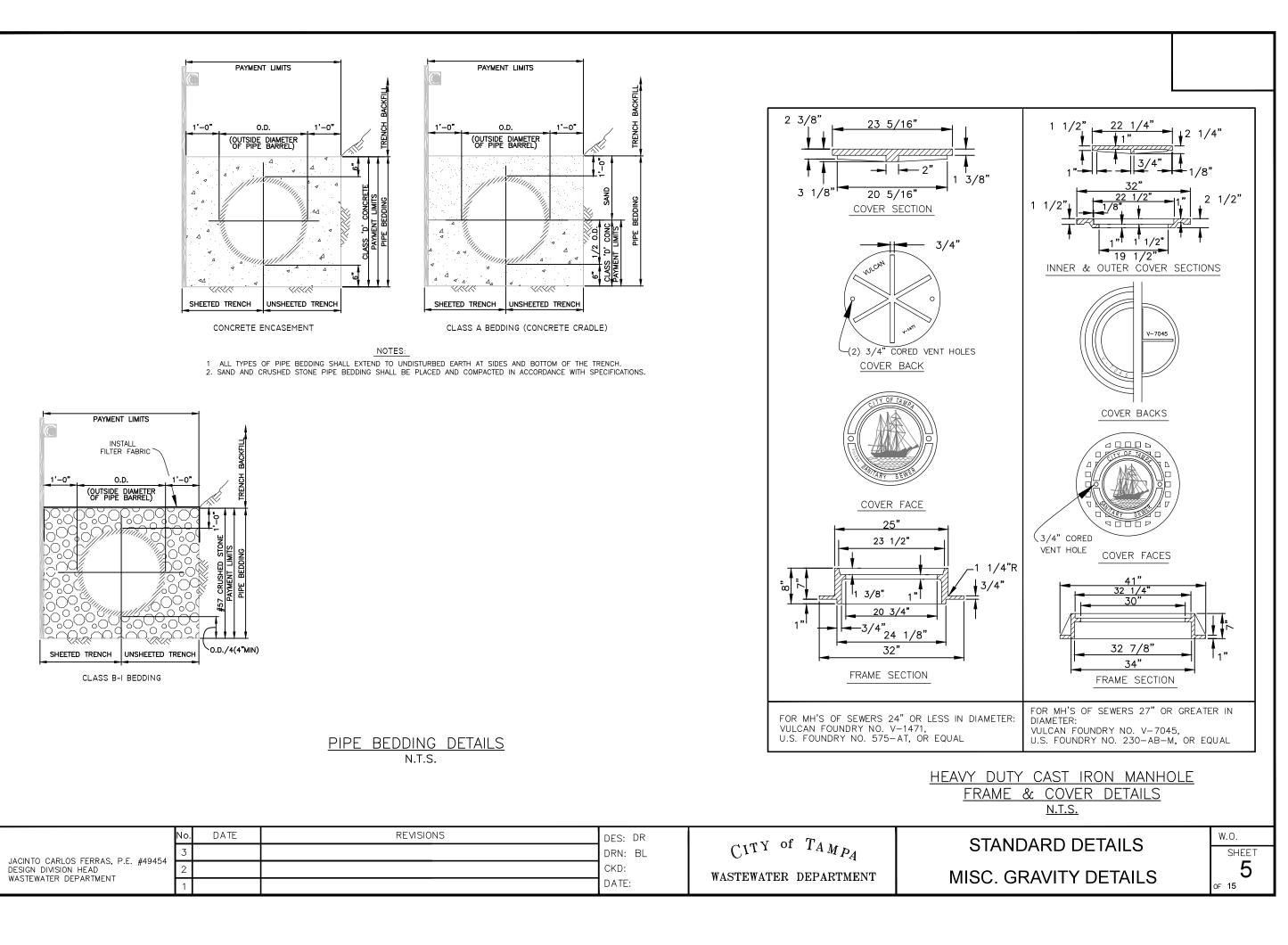
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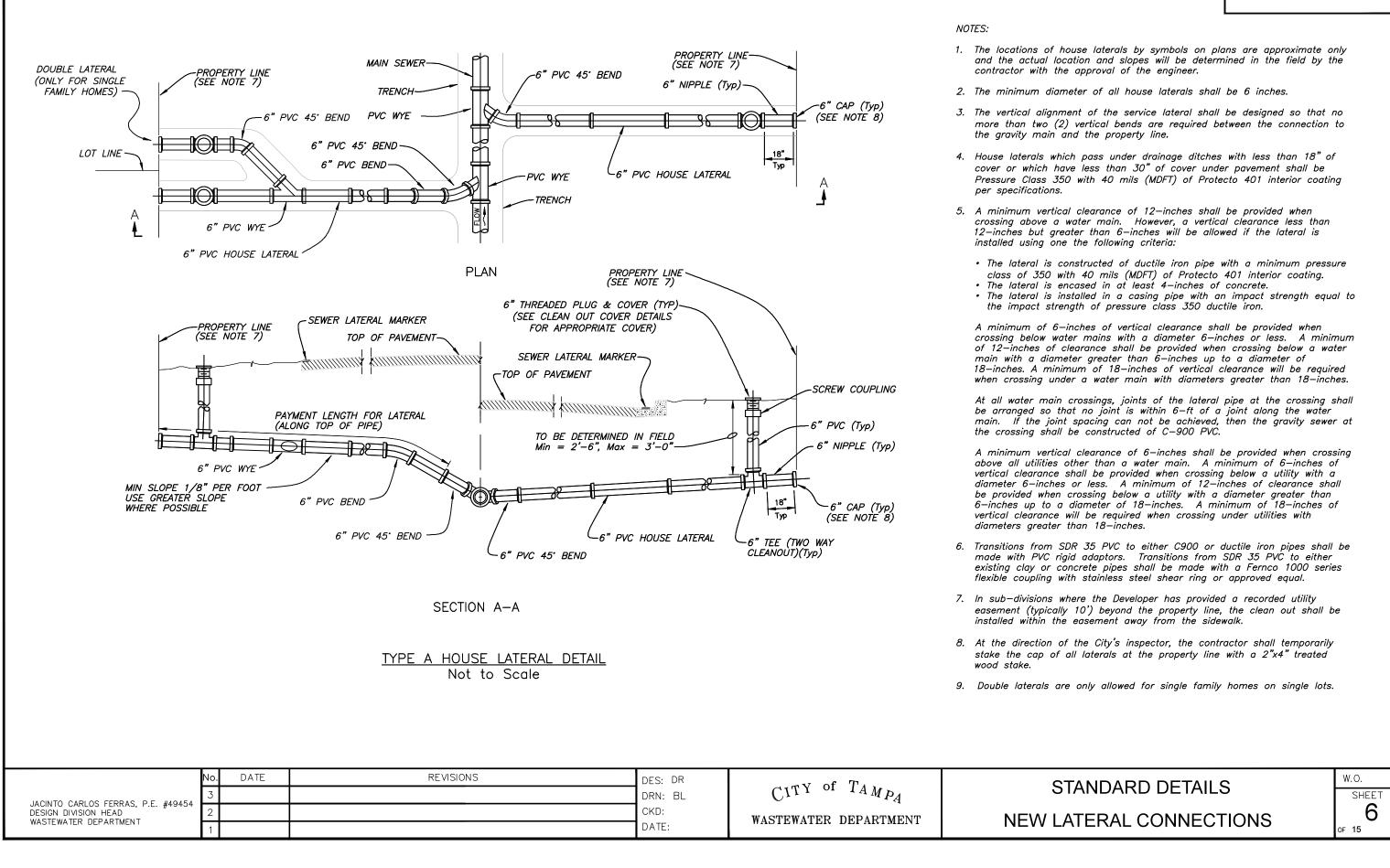
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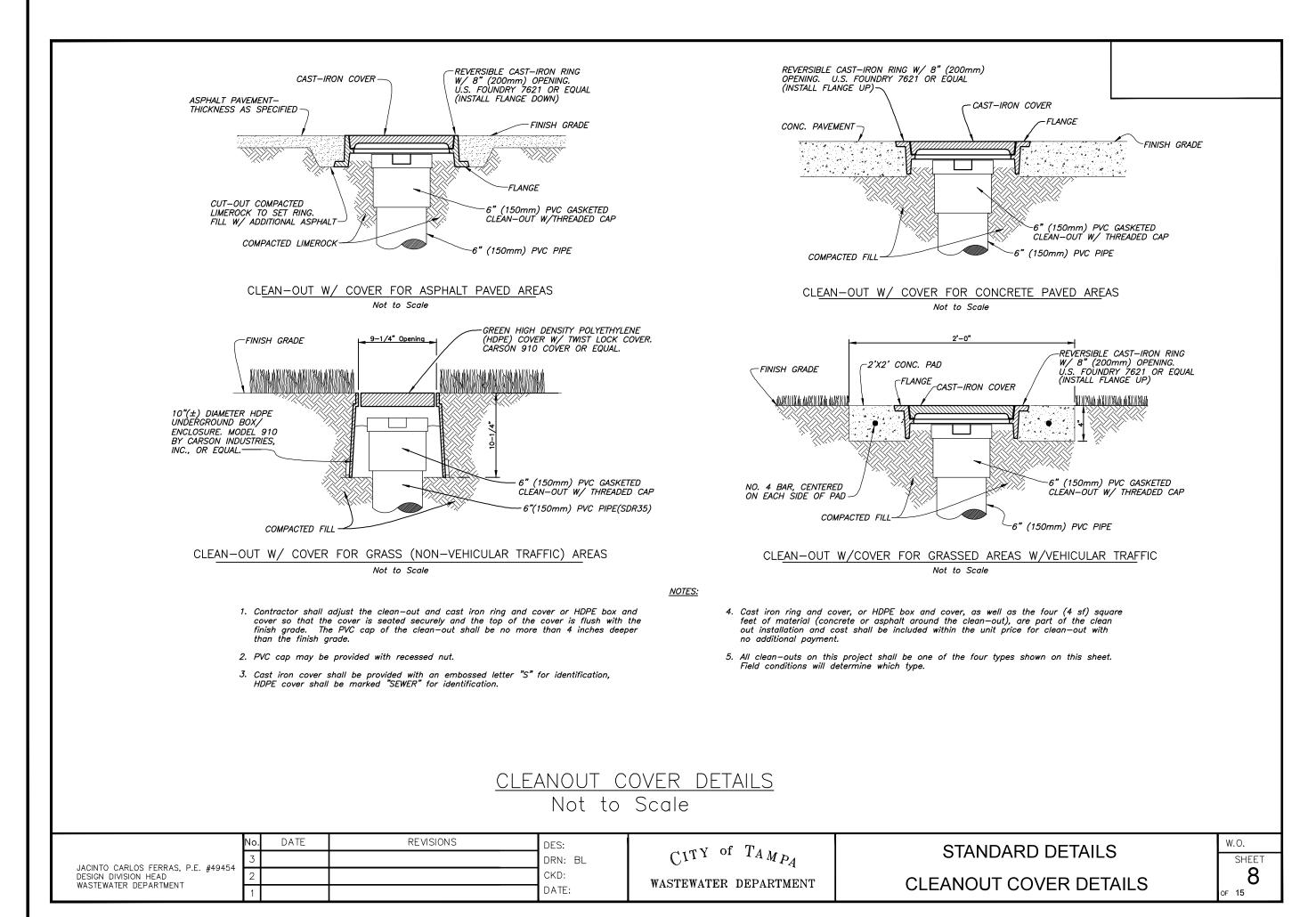
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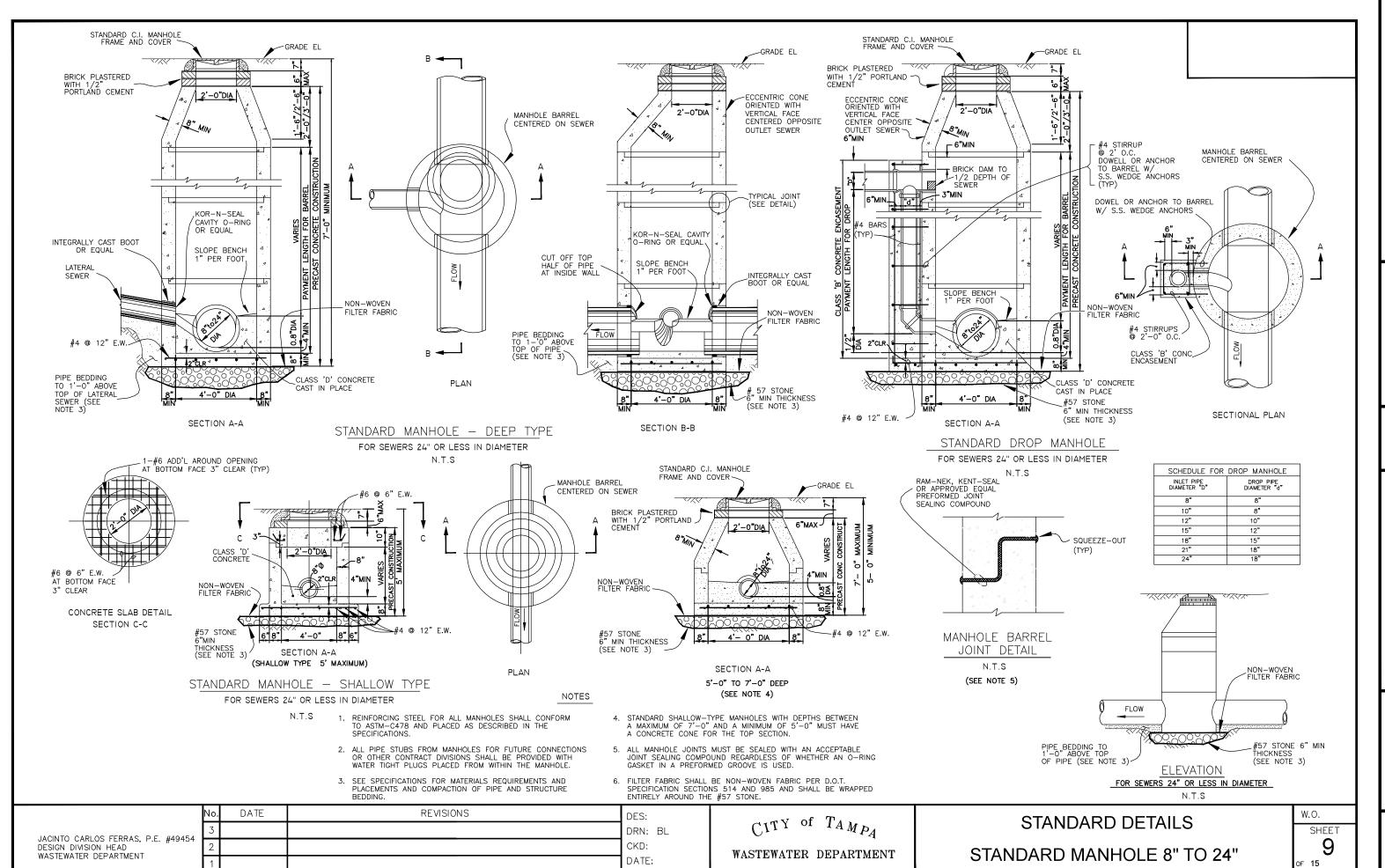
WASTEWATER **DETAILS**

SHEET No:











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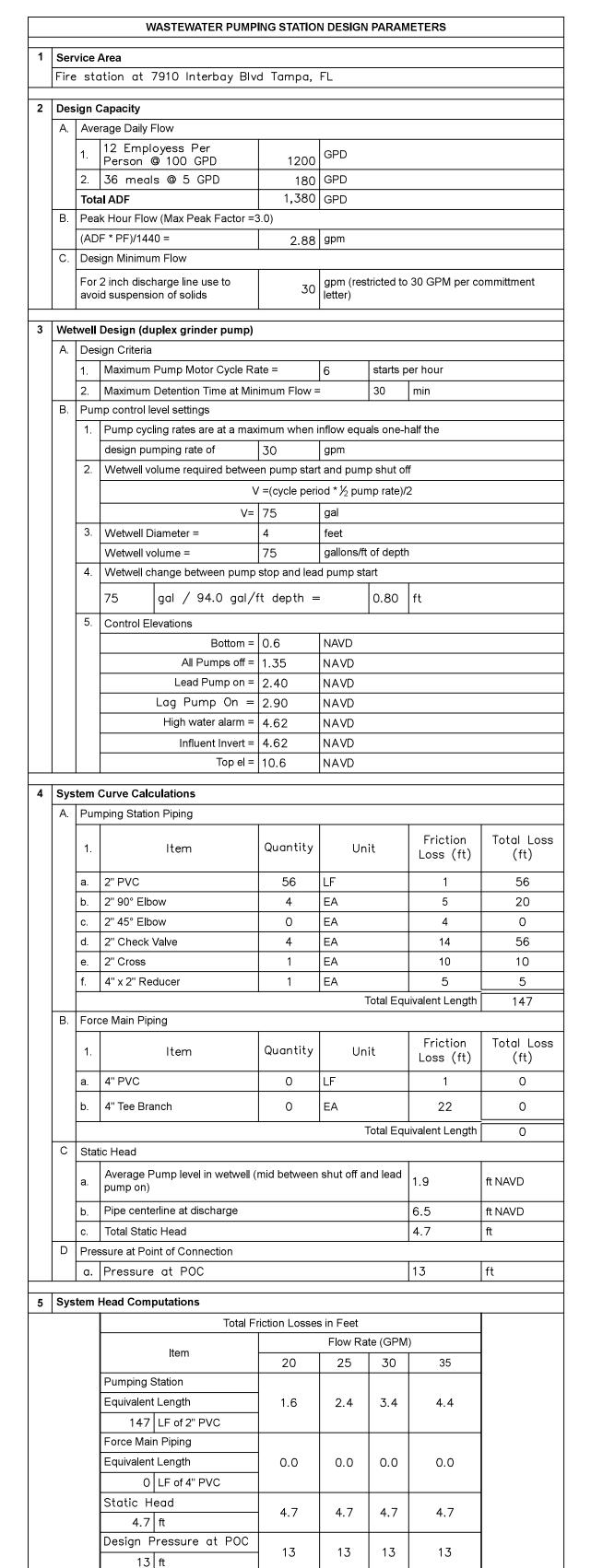
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JESUS A. MERLY P.E. NO. 58113 FLORIDA PROFESSIONAL ENGINEER

WASTEWATER **DETAILS**

SHEET No:



20.1 21.1

22.1

19.3

Total Losses System Curve

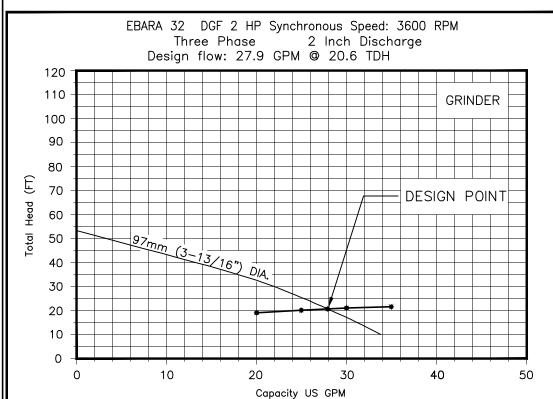
GENERAL NOTES

DESIGN CONDITION:

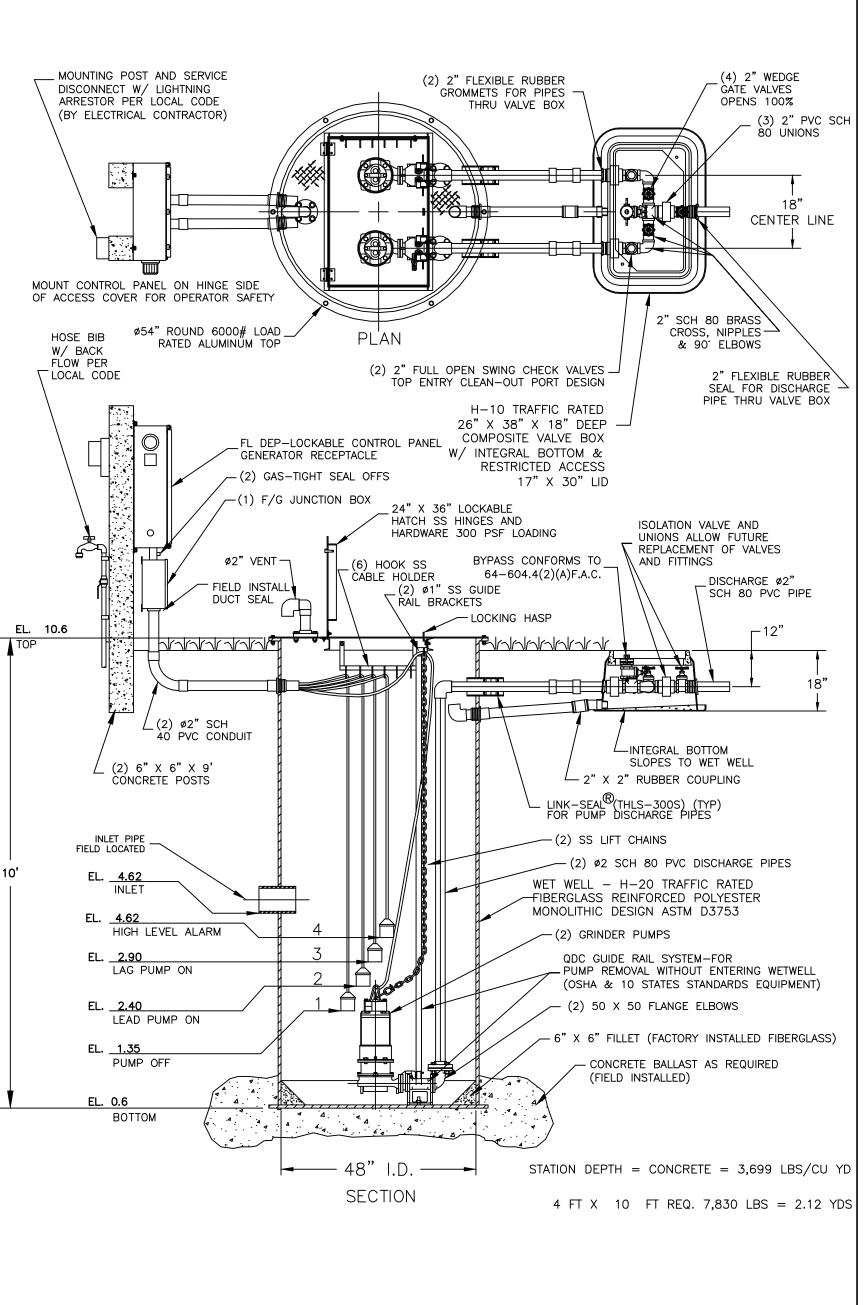
MODEL _	EBARA 32 DGF	2 HP	HP
GPM	27.9	20.6	FT/TDH
VOLTAGE	208/230/460	SINGLE/THREE	PHASE
DISCHARGE	2"	3 13/16"	— IMPFLLER

SEWAGE GRINDER PUMP: 1. RATED FOR TWENTY (20) STARTS PER HOUR. 2. AIR FILLED MOTOR DESIGNED FOR SEWAGE APPLICATION WITH CLASS F INSULATION. 3. DUAL MECHANICAL SHAFT SEALS (SILICON CARBIDE / SILICON CARBIDE) LOCATED OUT OF THE PUMPAGE, IN A SEPARATE OIL FILLED CHAMBER.

- 4. HIGH TEMPERATURE BALL BEARINGS B-10 RATING OF 60,000 HOURS, UPPER BEARING SINGLE ROW AND LOWER BEARINGS DOUBLE ROW TYPE.
- PUMP SHAFT HORSEPOWER (BHP) SHALL NOT EXCEED MOTOR RATED HORSEPOWER THROUGHOUT THE ENTIRE OPERATING RANGE OF THE PUMP PERFORMANCE CURVE.
- S. SINGLE PHASE MOTORS SHALL BE DUAL WOUND, CAPACITOR START-RUN AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260). THREE PHASE MOTORS SHALL BE DUAL WOUND AND CAPABLE OF ÒPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260) OR OPERATE ON 460 VOLT BY CHANGING THE MOTOR LEADS INSIDE THE PUMP
- <u>FIBERGLASS WET WELL:</u> SHALL BE A ONE PIECE UNIT WITH INTEGRAL BOTTOM, WALI 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.
- LUMINUM HATCH: TSC MODEL-54R (54") ROUND WITH 24" X 36" LOCKABLE HATCH. REINFORCED FOR LOAD RATING OF 300 LBS/FT WITH HOLD OPEN SAFETY ARM, LOCKING DEVICE FOR HASP TYPE PADLOCK AND STAINLESS STEEL HARDWARE.
- VALVE BOX: FIBERGLASS COMPOSITE (H-10 TRAFFIC RATED) WITH INTEGRAL BOTTOM. (FOR 1 1/4" AND 2" DISCHARGE PIPING SXS HEADER SYSTEM) SHALL BE 26" X 38" X 18" WITH 17" X 30" LIMITED ACCESS LID
- ACCESSORIES: #304 S/S GUIDE RAILS, UPPER GUIDE RAIL BRACKETS, CABLE HOLDER, ANCHOR BOLTS AND PUMP LIFTING CHAINS.
- <u>VALVES</u>: SHALL BE SEWAGE SERVICE DESIGN BRASS SWING CHECK VALVES WITH TOP ENTRY CLEAN-OUT PORT AND BRASS WEDGE GATE VALVES OPEN 100%. <u>PIPING:</u> 2" SCHEDULE 80 PVC.
- FLOAT SWITCHES: UL LISTED SJ ELECTRO MODEL (SJ 30 SWENO).
- PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, JUNCTION BOX, FLOAT SWITCHES, ALUMINUM HATCH AND ACCESSORIES TO INSURE PROPER OPERATION AND WARRANTY.
- THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, SLIDE RAIL ASSEMBLIES AND DISCHARGE PIPING ASSEMBLED BY TECHNICAL SALES CORPORATION READY TO SHIP FOR FIELD INSTALLATION.



PUMP PERFORMANCE CURVE



SEWAGE GRINDER PUMP 48" DUPLEX STATION - 2" PIPING WITH SLIDE RAIL SYSTEM, F.D.E.P. PANEL & B.B.U.

2. GROUT FILLET (1 TO 1 SLOPE TO "HOPPER" BOTTOM) 1. HOSE BIBB WITH REDUCED PRESSURE BACK FLOW PREVENTER FIELD INSTALL BY CONTRACTOR

48" DUPLEX GRINDER STATION WITH CONTROL PANEL NOT TO SCALE



CONTRACT ADMINISTRATION DEPARTMENT

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James E. Jackson, Jr. AIA, NOMA

SINGLE PHASE WIRING DIAGRAM

N GR

MOISTURE 2

5 1 2 4 5 6 ALTERNATOR

O HIGH ALARM

PANEL WIRING DIAGRAM

(4) SHAFT SEAL FAIL DETECTION

(5) ALTERNATOR W/TEST SWITCH

(6) BATTERY BACK-UP UNIT

B5 B6 CLAG/BOTH

8 9 10 11 12 CONTROLLER

6 BATTERY

PANELS SHALL CONFORM TO FLORIDA DEP 64-604.400

(1) GENERATOR RECEPTACLE FOR EMERGENCY

POWER CONNECTION WITH INTERLOCK

PROTECTION ON ALL INCOMING LEGS

(3) PHASE PROTECTION SHALL BE PROVIDED

PANEL MANUFACTURER SHALL BE A "UL" LISTED SHOP.

(2) SURGE PROTECTION AND LIGHTNING

U-RED V-WHITE Y-BLACK

RELAYS ARE

PANEL MOUNTED

OCONNECTION POINT "A"

→ CONNECTION POINT "A"

SEAL PROBE 1

R3 SEAL FAIL 2

R4 A3 AH A4

1A B15 SEAL PROBE 2

R2 SEAL FAIL 1

THREE PHASE WIRING DIAGRAM

U-RED V-WHITE W-BLACK

MB1 MS 1 OL'S SPM1

MB2 MS 2 OL'S

PUMP 2

PUMP 1

CONTROL PANEL -SHALL CONFORM TO FL DEP 64-604.42(A)

PROTECTION COMMISSION (EPC) AND LOCAL CODE REQUIREMENTS GOVERNING PRIVATE LIFT STATIONS.

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

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

CONTROL PANEL LAYOUT

DRB CCB MB1 MB2 MCB ECB

- SEAL FAIL 4

INDICATOR

LIGHTS

ALARM AND RUN LIGHTS

- (4) FLOAT LIGHTS

- POWER LIGHT

└ALTERNATOR W/ TEST SWITCH

OFF LEAD LAG HIGH #1 #2 #3 ALARM

FLOAT TERMINAL STRIP

TPUMPS-

---FLOATS

AH ALARM HORN

ALARM LIGHT

LEGEND

ALARM SILENCE BUTTON

DUPLEX RECEPTACLE

LIGHTNING ARRESTOR MOTOR BREAKER

PUMP TERMINAL STRIP

DISCHARGE RESISTOR PUMP RUN INDICATORS

REGULATOR TERMINAL STRIP START CAPACITOR

SURGE PROTECTOR THERMAL TERMINAL STRIP

NOT TO SCALE

MCB MAIN CIRCUIT BREAKER MOTOR STARTER

RUN CAPACITOR

SEAL FAIL (SHAFT) START RELAY

OL'S OVERLOAD HEATERS

3 PM PHASE MONITOR

ALTERNATOR W/TEST SWITCH

DUPLEX RECEPTACLE BREAKER EMERGENCY CIRCUIT BREAKER ELAPSED TIME METER

BATTERY (BACK-UP UNIT)

CONTROL CIRCUIT BREAKÉR

FLOAT SWITCH (REGULATOR)
GENERATOR RECEPTACLE

GROUND
HAND-OFF-AUTOMATIC SELECTOR

- INTERLOCK

SAFETY DOOR ALUMINUM INNER

DOOR REINFORCED

ON ALL SIDES

APPLETON TO PRÉVENT SEWER GAS ENTRY

1) FLOAT CONTROL CABLES
1) PUMP POWER CABLES

FURNISH (2) CONDUITS

TO WETWELL 2" MIN

CONTROL PANEL LAYOUT

INTO PANEL

SEPARATE CONDUITS

REQUIRED BY NEC

BATTERY BACK-UP ALARM SYSTEM TO BE INCORPORATED INTO

A JUNCTION BOX IS REQUIRED, WITH SHOP POURED SEALS BETWEEN BOX AND CONTROL PANEL TO PREVENT SEWER GAS

ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT

WITH LIGHTNING ARRESTOR MOUNTED PER LOCAL CODES.

CONTROL PANEL PER THE "10 STATES STANDARDS"

ETM1

0000

SILENCE

(5) ALTERNATOR—

DUPLEX

NEMA 4X — 12 X 12 X 6

FIBERGLASS

JUNCTION BOX W/ALUMINUM SUB

PÁNEL AND (5) TERMINAL STRIPS

SHOWN OPEN FOR CLARITY

ENTRY INTO CONTROL PANEL.

CONTROL PANEL SHALL BE TSC MODEL # 38-D IN NEMA 4X
STAINLESS STEEL ENCLOSURE. THE PANEL SHALL MEET STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), ENVIRONMENTAL

OFFICIENTS**

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**

OFFICIENT

City Architect Edward D. Rice, AIA Project Architect Kevin L. Henika, AIA Project Architect Thomas A. Hester, Sr., AIA, NOMA Project Architect David R. Pagitt Supervisor, Architectural Drafting **Drafting Technician** Jerry P. Sanders

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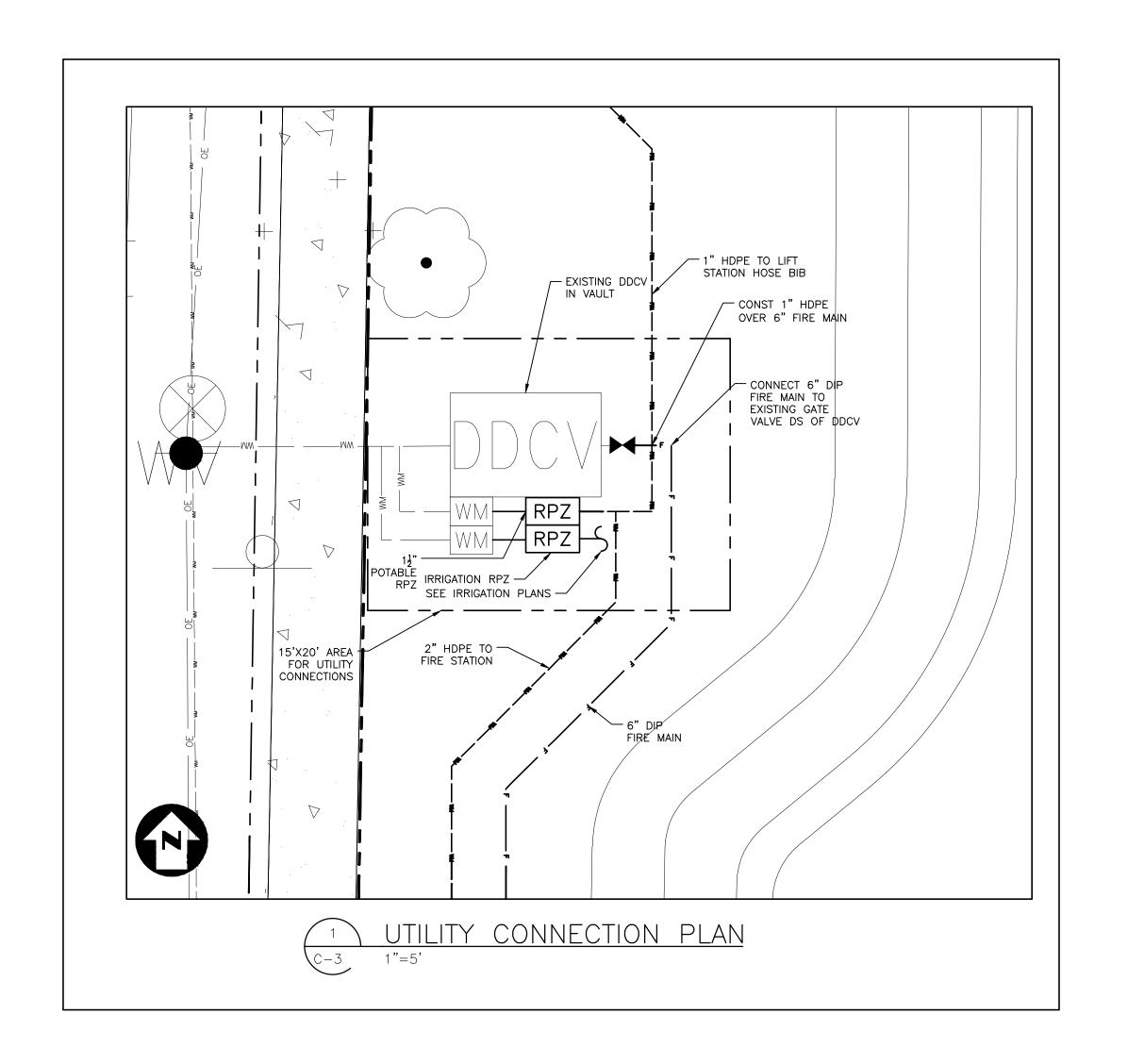
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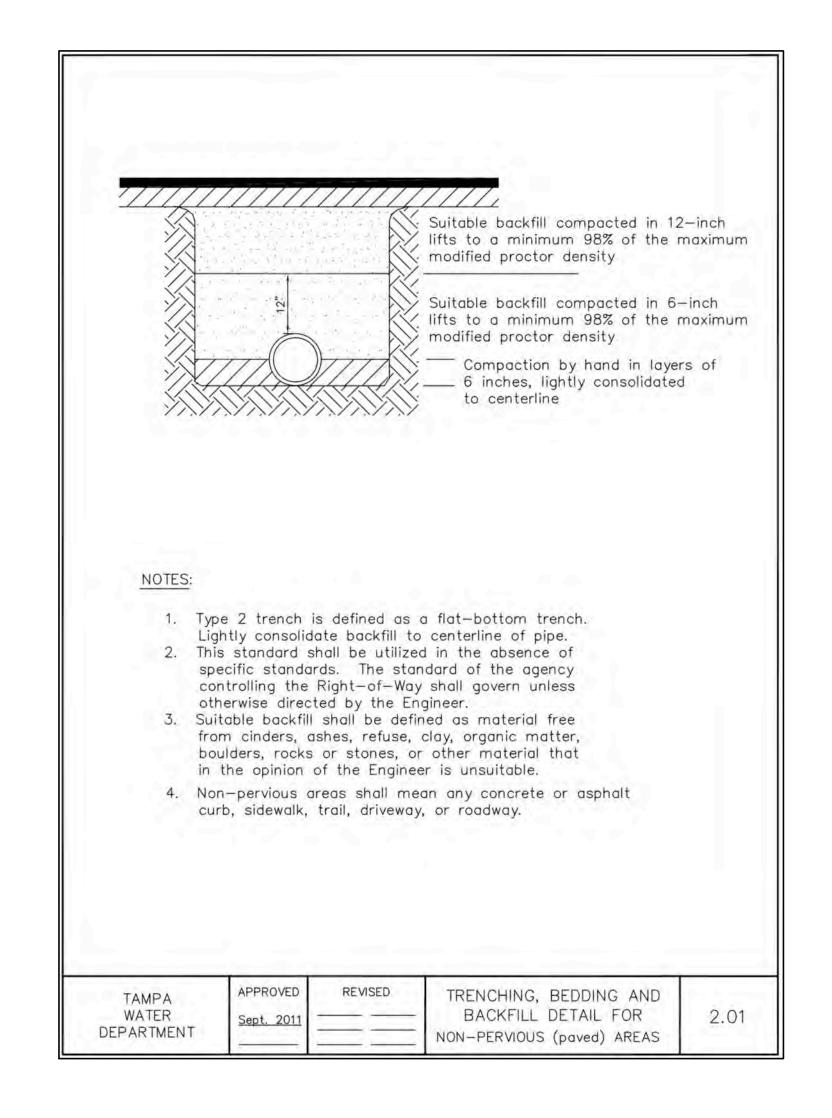
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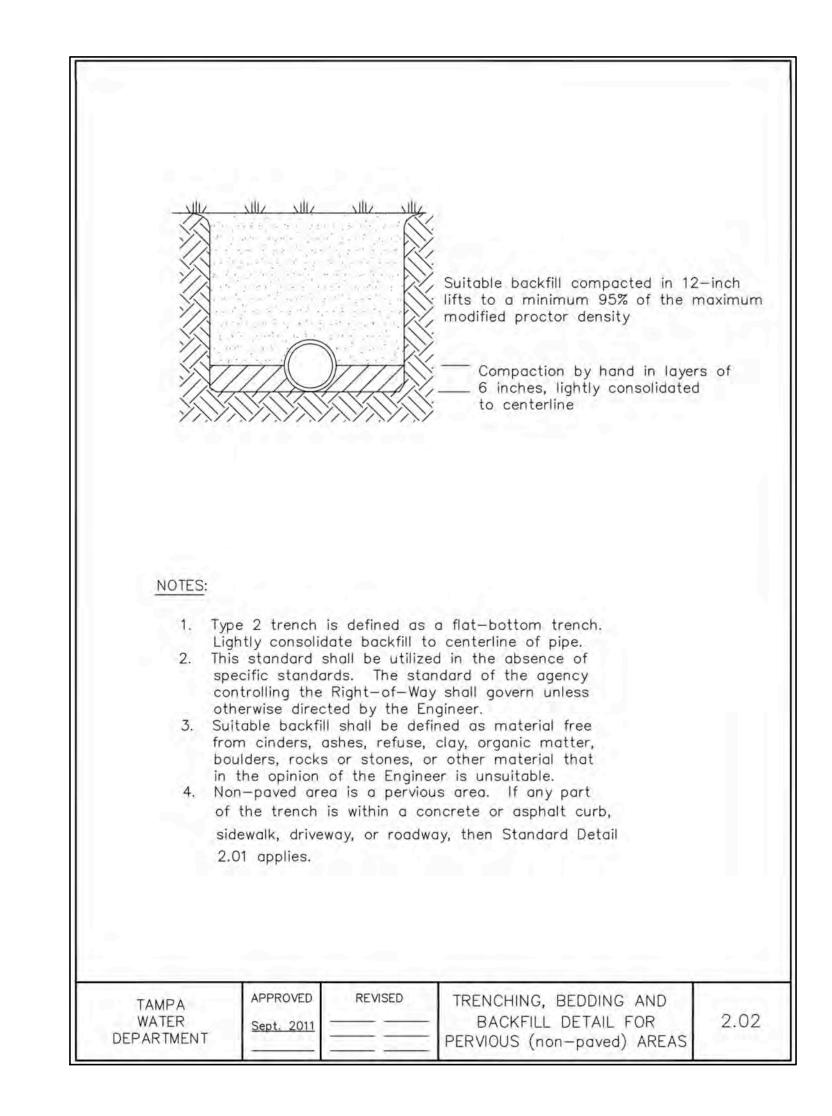
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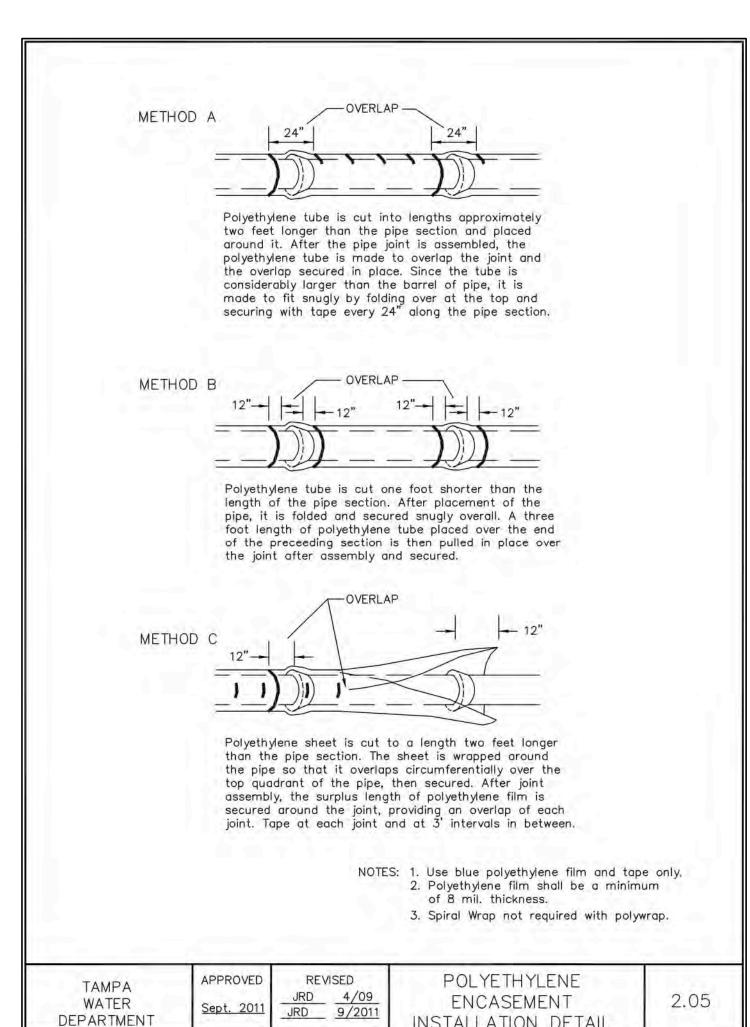
LIFT STATION **DETAILS**

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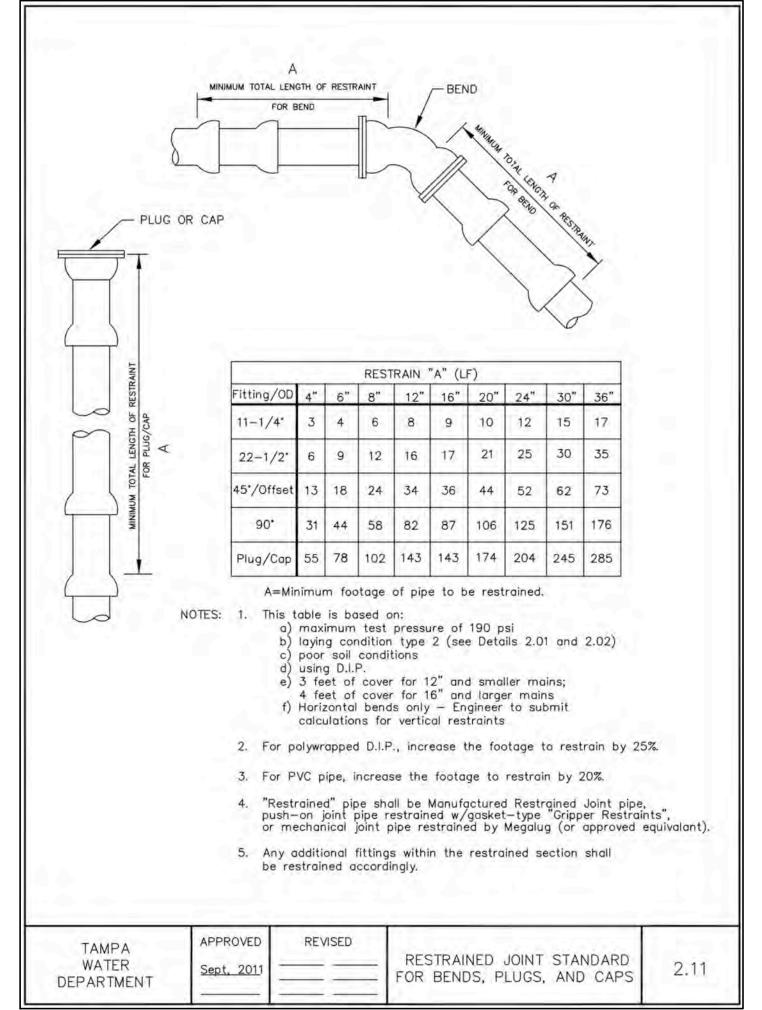


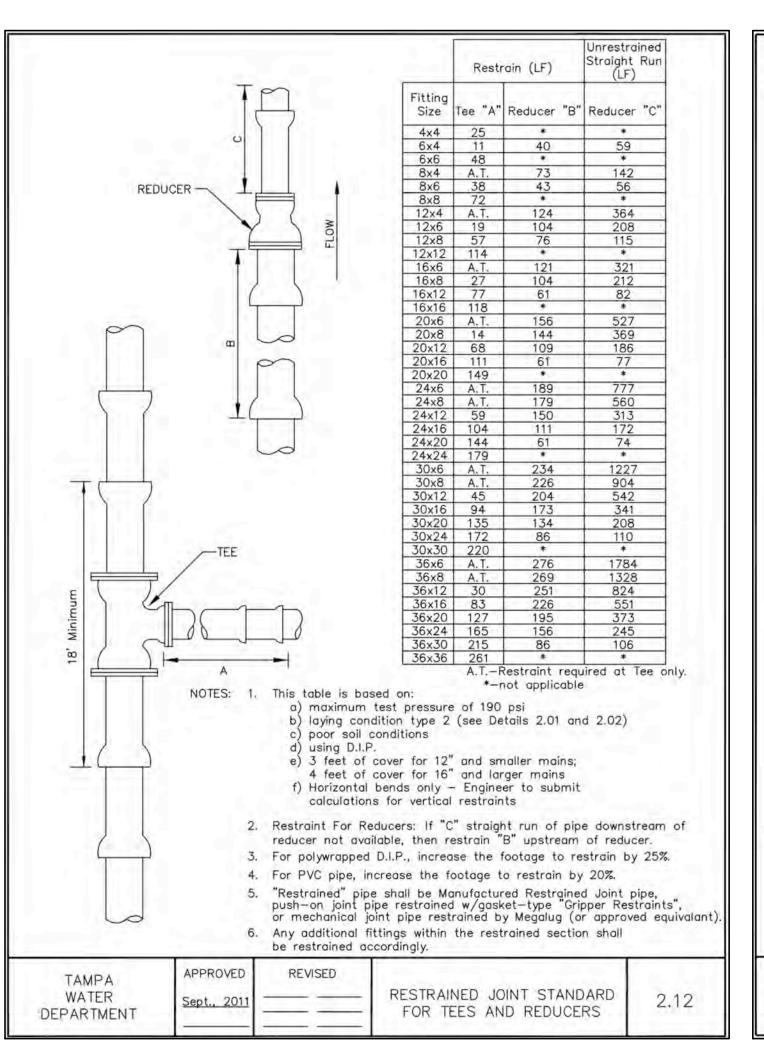


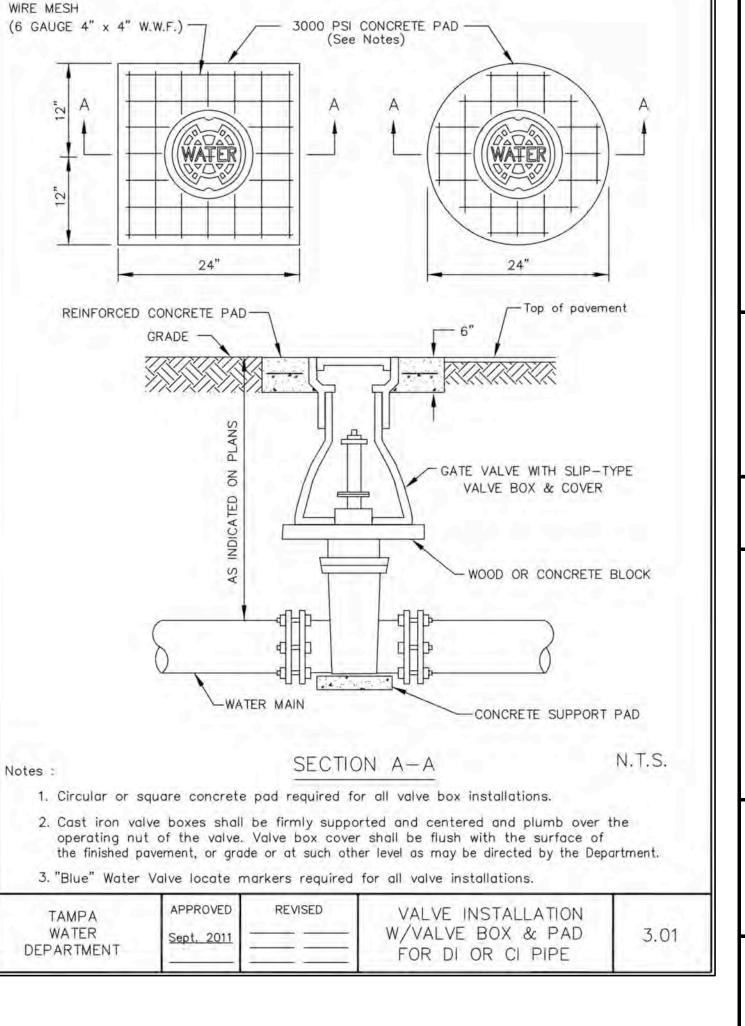




INSTALLATION DETAIL









CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT PLANNING AND DESIGN DIVISION

> 306 E. JACKSON STREET 4 NORTH TAMPA, FLORIDA 33602 p: 813. 274. 8456 - f: 813. 274. 8080 url: www.tampagov.net

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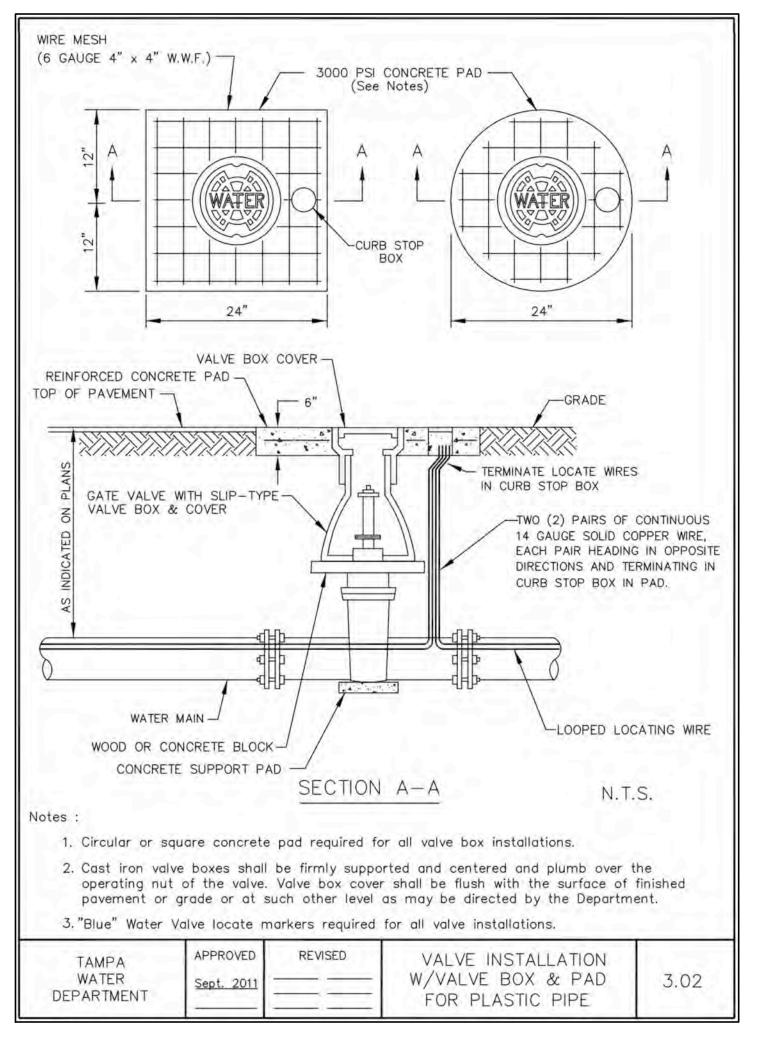


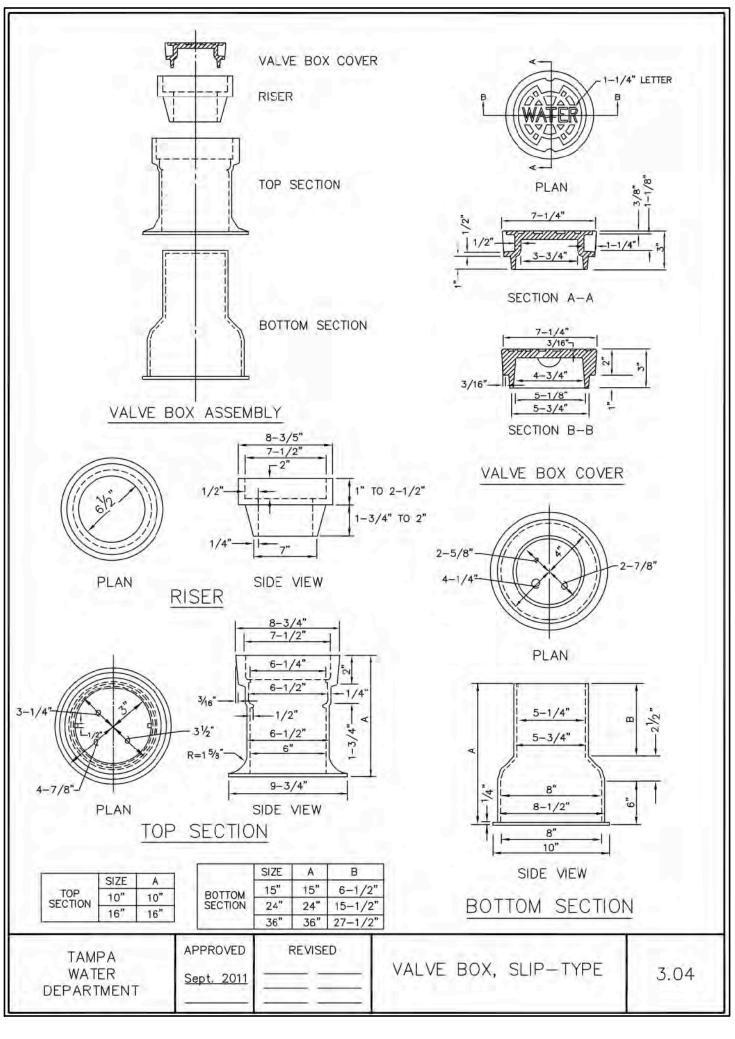
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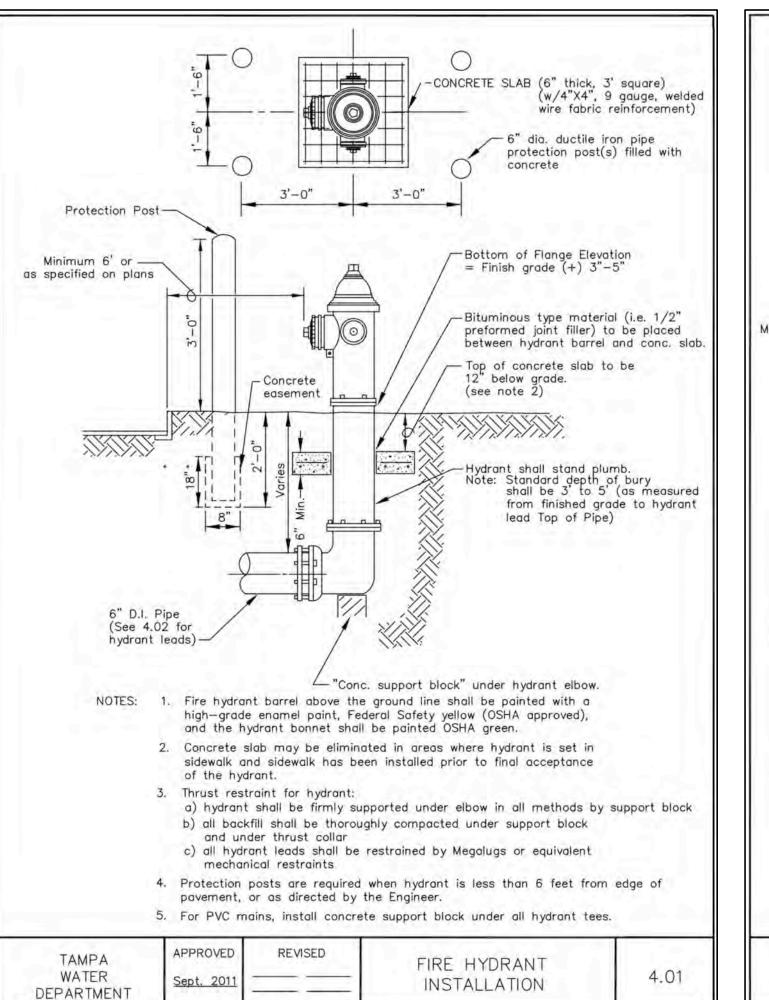
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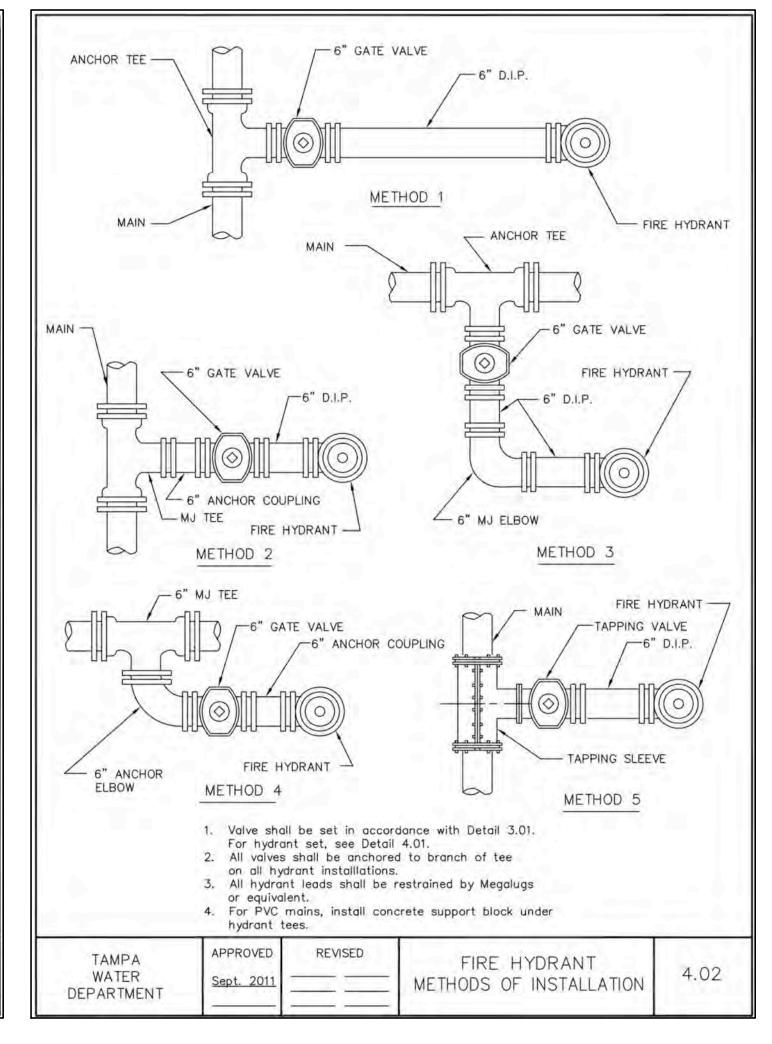
WATER DETAILS

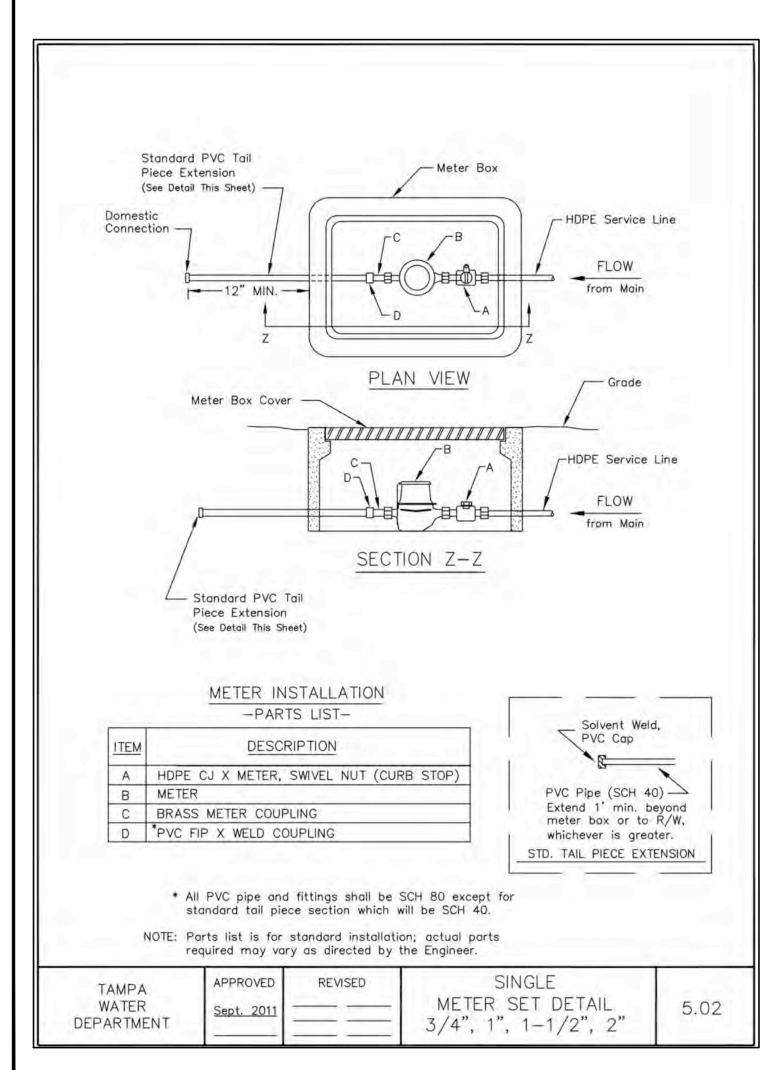
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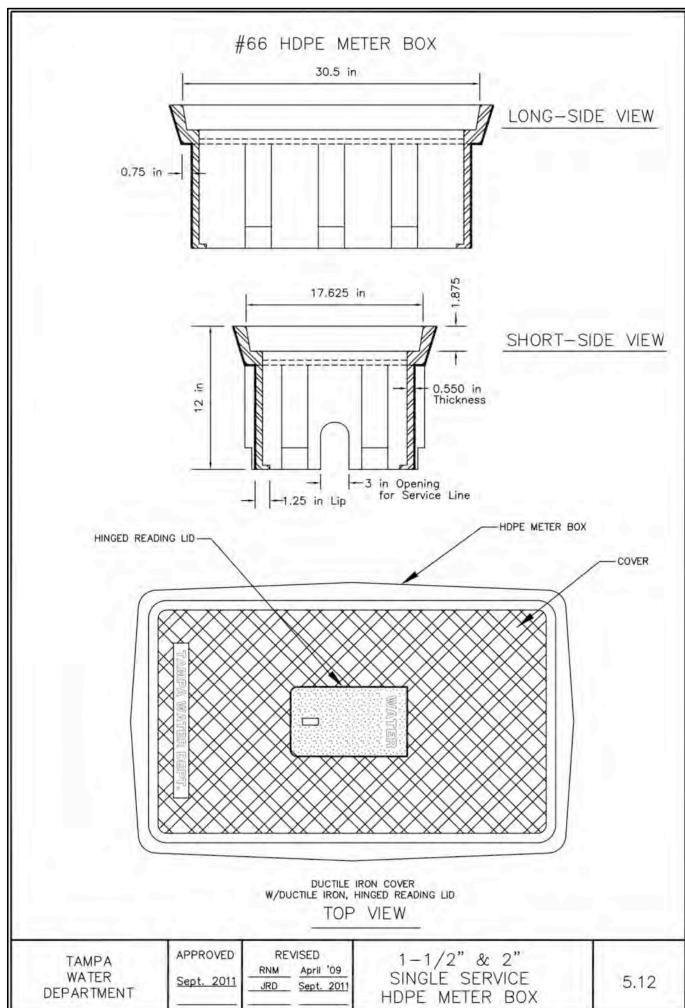


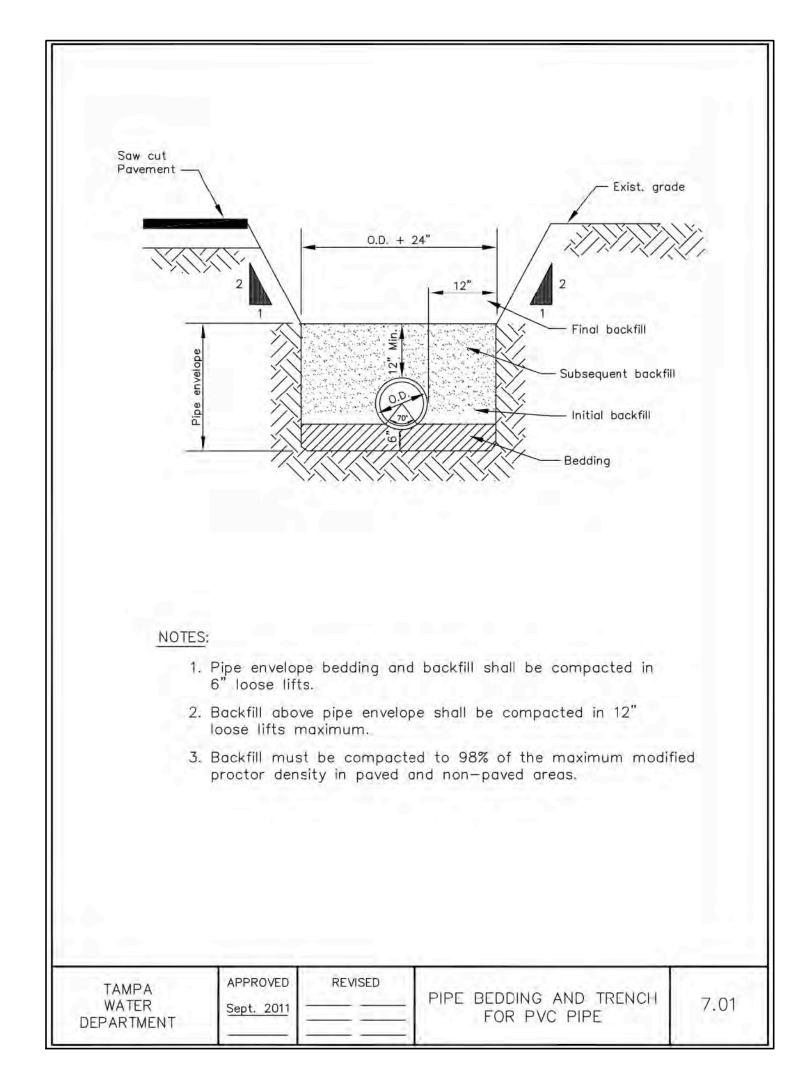


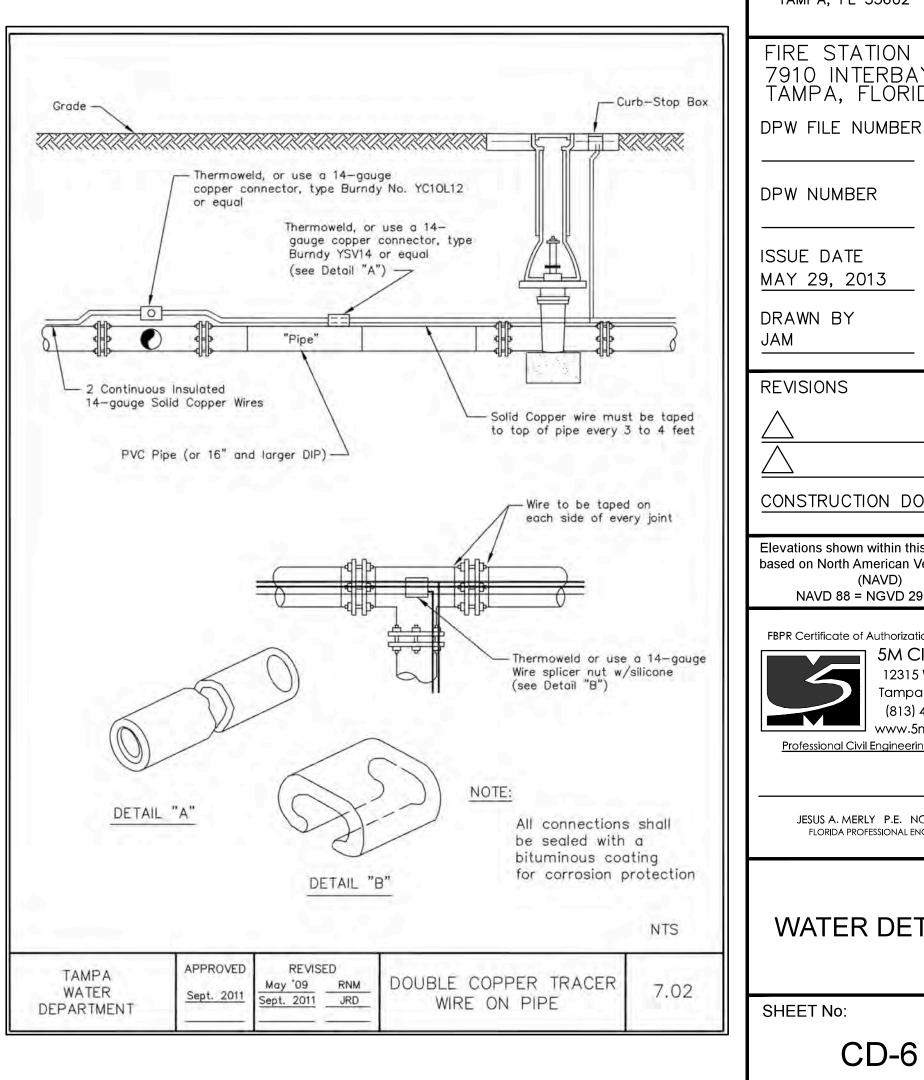














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WATER DETAILS

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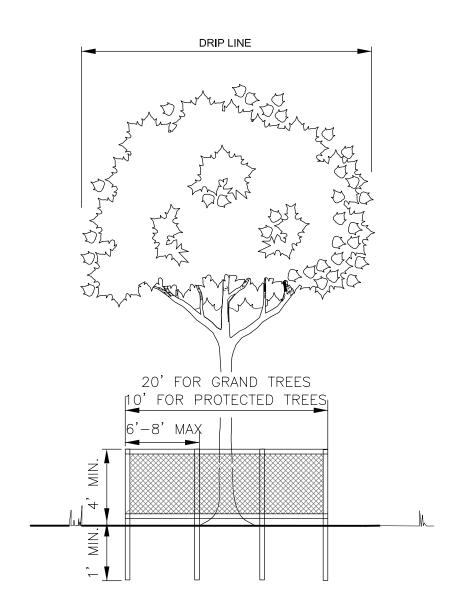
TREE PRESERVATION/PROTECTION/REMOVAL NOTES:

- 1. DESTRUCTION OR DISREGARD OF THE PROTECTIVE BARRICADES MAY REQUIRE THE FULL REPLACEMENT OF THE PROTECTED TREE
- 2. NO EXCESS SOIL OR ADDITIONAL FILL, BUILDING MATERIALS, DEBRIS, OR LITTER SHALL BE PLACED WITHIN THE PROTECTIVE BARRIERS. ANY DEMOLITION WITHIN THE PROTECTIVE BARRIERS SHALL BE ACCOMPLISHED BY HAND OPERATED EQUIPMENT. UNDER NO CIRCUMSTANCES SHALL TRACTORS OR HEAVY MACHINERY BE ALLOWED TO WORK, PARK, OR LOCATE WITHIN BARRIER AREAS.
- 3. BEFORE GRADING, PAD PREPARATION, OR EXCAVATION FOR PARKING AREA, CURBS, SIDEWALKS OR DRIVEWAYS, THE ROOTS OF IMPACTED TREES SHALL BE PRUNED IN ACCORDANCE SOUND ARBORICULTURAL PRACTICES. ROOT PRUNING SHALL BE LOCATED ONE FOOT OUTSIDE THE TREE BARRIERS OR AS DETERMINED BY THE PLANS. ALL ROOT PRUNING SHALL BE COMPLETED IN ACCORDANCE WITH AN APPROVED ROOT PRUNING REPORT COMPLETED BY A CERTIFIED ARBORIST LICENSED IN THE CITY OF TAMPA.
- 4. ALL DAMAGED ROOTS SHALL BE EXPOSED TO SOUND TISSUE AND SEVERED CLEANING. ROOTS SHALL BE PRUNED TO A DEPTH OF 18 INCHES BELOW THE EXISTING GRADE OR TO THE DEPTH OF DISTURBANCE IF LESS THAN 18 INCHES FROM THE EXISTING GRADE.
- 5. TREAT ALL ROOT PRUNING TRENCHES WITH FUNGICIDE AS RECOMMENDED BY CONSULTING ARBORIST.
- 6. DO NOT ROOT PRUNE WITHIN THE ROOT PLATE OF ANY TREE. ROOT PLATE SHALL BE CALCULATED AS 6 TIMES THE TREE TRUNK DIAMETER AT 4.5 FEET ABOVE GRADE.

SEC. 13-164. CITY OF TAMPA TREE PROTECTION STANDARDS.

DEVELOPMENT ON PARCELS SHALL COMPLY WITH THE FOLLOWING TREE PROTECTION REQUIREMENTS:

- 1. PROTECTIVE BARRICADES SHALL BE PLACED AROUND ALL PROTECTED TREES AND GRAND TREES DURING SITE CLEARING TO CREATE A PROTECTIVE ROOT ZONE AND SHALL REMAIN IN PLACE UNTIL LAND ALTERATION, SITE CLEARING AND CONSTRUCTION ACTIVITIES ARE COMPLETE. BARRICADES FOR THE PROTECTIVE ROOT ZONE SHALL BE ERECTED AT A MINIMUM DISTANCE OF TEN (10) FEET FROM THE EDGE OF TRUNK OF PROTECTED TREES AND TWENTY (20) FEET FROM THE EDGE OF TRUNK OF GRAND TREES.
- 2. A MINIMUM DISTANCE OF TEN (10) FEET FROM ALL PROTECTED TREES AND TWENTY (20) FEET FROM ALL GRAND TREES SHALL BE MAINTAINED WHEN INSTALLING UNDERGROUND UTILITIES. IF THIS RESULTS IN UNREASONABLE HARDSHIP, A SOIL AUGER SHALL BE USED TO TUNNEL UNDER THE ROOT SYSTEMS.
- 3. INSTALLATION OF ARTIFICIAL BARRIERS SUCH AS PROTECTIVE BARRICADES, FENCES, POSTS OR WALLS SHALL NOT DESTROY OR IRREVERSIBLY HARM THE ROOT SYSTEM OF PROJECTED TREES AND GRAND TREES. FOOTERS FOR WALLS SHALL END AT THE POINT WHERE LARGER ROOTS ARE ENCOUNTERED, AND THE ROOTS SHALL BE BRIDGED. POST HOLES AND TRENCHES LOCATED CLOSE TO PROTECTED TREES OR GRAND TREES SHALL BE ADJUSTED TO AVOID DAMAGE TO
- 4. ALL ROOTS TO BE REMOVED DURING THE SITE CLEARING PHASE SHALL BE SEVERED CLEAN AT THE PERIMETER OF THE DESIGNATED PROTECTIVE ROOT ZONE.
- 5. A TWO-INCH LAYER OF MULCH SHALL BE APPLIED OVER THE SURFACE OF EXPOSED ROOTS OF PROTECTED TREES AND GRAND TREES DURING THE SITE CLEARING PHASE.
- 6. A PROTECTIVE DRY WELL AND DRAINAGE/AERATION SYSTEM SHALL BE PROVIDED WHERE PROTECTED TREES OR GRAND TREES WILL BE ADVERSELY AFFECTED BY RAISING THE GRADE.
- 7. A PROTECTIVE RETAINING WALL SHALL BE CONSTRUCTED AT THE PERIMETER OF THE PROTECTIVE ROOT ZONE AROUND A PROTECTED TREE OR GRAND TREE WHERE THE PROTECTED TREE OR GRAND TREE WILL BE ADVERSELY AFFECTED BY LOWERING THE GRADE.
- 8. ALL TRIMMING OF PROTECTED TREES AND GRAND TREES DURING DEVELOPMENT SHALL BE DONE BY A QUALIFIED, LICENSED TREE SERVICE.



SPECIFICATIONS - CHAIN LINK FENCE

LEGEND

TREE TO BE REMOVED

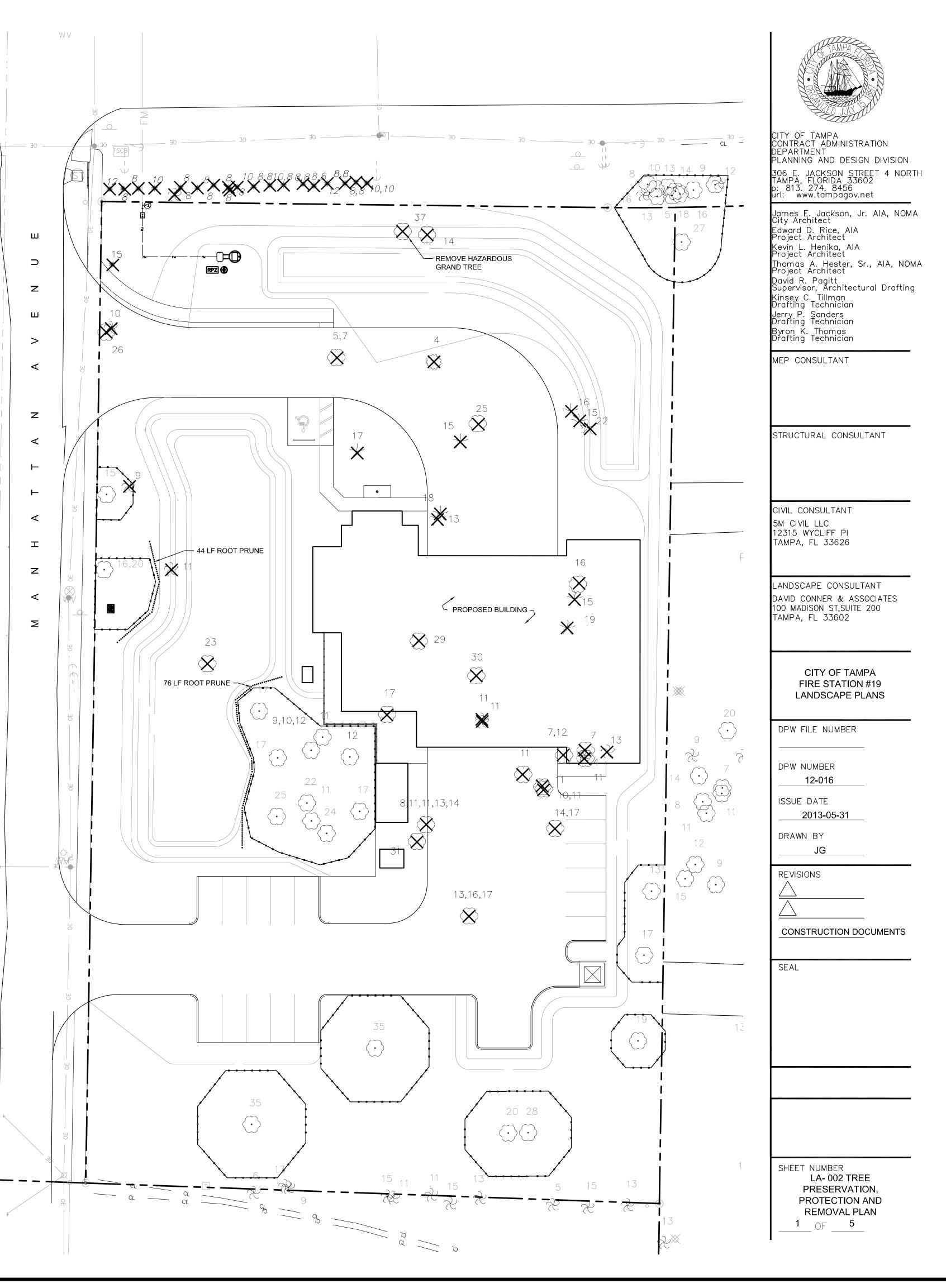
TREE PROTECTION FENCE.

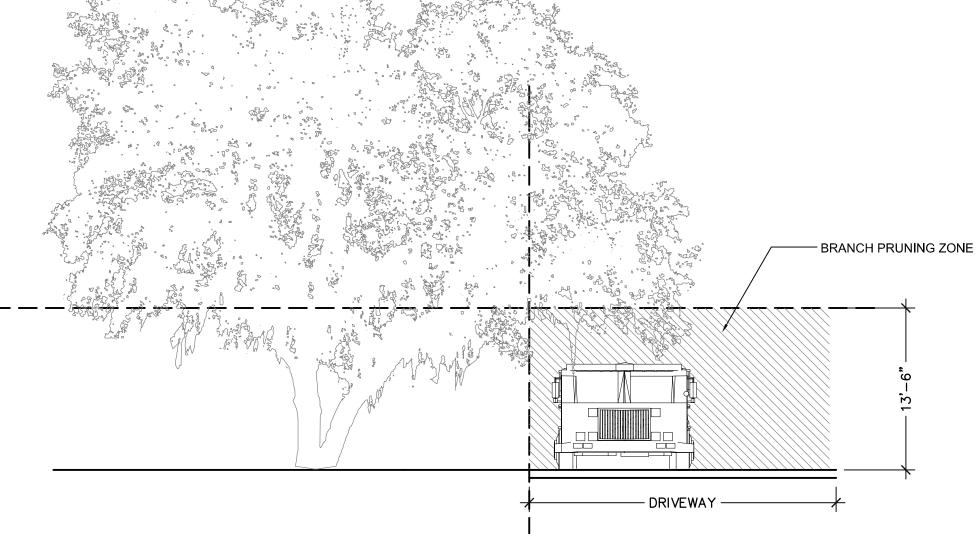
******* PROPOSED ROOT PRUNING CUT LINE

- 1. BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED TREES AND PALMS, AND INSPECTED BY CITY REPRESENTATIVE BEFORE CONSTRUCTION BEGINS.
- REPRESENTATIVE BEFORE CONSTRUCTION BEGINS.

 2. CHAIN LINK PANELS AND HARDWARE SHALL BE VINYL COATED BLACK







DRIVEWAY BRANCH PRUNING DETAIL

1/8" = 1'-0"

PLANT SCHEDULE

1 2/ (111 00)							
TREES ILE CA4	QTY 9	BOTANICAL NAME Ilex cassine	COMMON NAME Dahoon Holly	<u>CONT</u> #30	CAL 2.5"Cal	<u>SIZE</u> 8 - 10` Ht	REMARKS
PIN EX2	8	Pinus elliotti	Slash Pine	B & B	2.5"Cal	8 - 10` Ht x 4` Sp	
QUE VX6	4	Quercus virginiana	Southern Live Oak	B & B	6"Cal	16 - 18` Ht	RPG 6' CT
SAB PAL	35	Sabal palmetto	Cabbage Palm	Regen. Root	N/A	8` - 16` Hts	Straight Trunk, No boots, Stagger ht Regenerated Root
TAX DX2	21	Taxodium distichum	Bald Cypress	B & B	2.5"Cal	8 - 10` Ht x 4` Sp	
SHRUBS CRI AQ4	<u>QTY</u> 25	BOTANICAL NAME Crinum asiaticum `Queen Emma`	COMMON NAME Queen Emma Crinum Lily	<u>CONT</u> #15	SIZE 48" Ht x 36" Sp		<u>REMARKS</u>
NER OP2	34	Nerium oleander `Petite Salmon`	Petite Salmon Oleander Shrub	#3	24" Ht x 24" Sp		
SER RC3	59	Serenoa repens Cinerea	Silver Saw Palmetto	#7	24" Ht x 24" Sp		Full
VIB OM2	197	Viburnum obovatum `Mrs. Shillers Delight`	Walter's Viburnum 'Mrs. Shillers Delight'	#3	15" Ht x 15" Sp		
VIB SU2	44	Viburnum suspensum	Sandankwa viburnum	#3	18" Ht x 18" Sp		
ZAM PU2	66	Zamia pumila	Coontie	#3	15" Ht x 15" Sp		
ZAM PU3	30	Zamia pumila	Coontie	#7	24" Ht x 24" Sp		
SHRUB AREAS ALP ZV2	<u>QTY</u> 45	BOTANICAL NAME Alpinia zerumbet `Variegata`	COMMON NAME Variegated Shell Ginger	<u>CONT</u> #3@ 36" oc	SIZE 30"Ht x 20"W		REMARKS Full
MUH CA1	621	Muhlenbergia capillaris	Pink Muhly	#1@ 36" oc	15" Ht x 10" Sp		
SPA BA1	34	Spartina bakeri	Sand Cord Grass	#1@ 42" oc	18" Ht x 10" Sp		
GROUND COVERS ARA GLA	QTY 3,892 sf	BOTANICAL NAME Arachis glabrata `Eco Turf`	COMMON NAME Perennial Peanut	CONT sod	SIZE		REMARKS
DIE VE1	231	Dietes vegeta	White African Iris	#1@ 24" oc	15" Ht x 10" Sp		
DRY ER1	1,375	Dryopteris erythrosora	Autumn Fern	4" liner@ 18" oc	6"Ht x 8"Sp		

SITE CALCULATIONS

PAS NOA

PROJECT SITE AREA:	1.8 AC - 78,791 SF
BUILDING AREA:	8,666 SF
SITE PARKING AND VUA:	18,520 SF

16,433 sf Paspalum notatum 'Argentine'

CITY OF TAMPA CHAPTER 13 REQUIREMENTS

MINIMUM TREE REQUIREMENT FOR

VEHICULAR USE AREAS PER CHAPTER 13-161 1 TREE (2" CALIPER MIN) PER 1,500 SF OF V.U.A. AREA 18,520 SF / 1,500 SF= 12 TREES 1 TREE (2" CALIPER MIN) PER 40 LF OF V.U.A. FRONTAGE 358 LF/ 40 LF = 9 TREES TOTAL OF CHAPTER 13 TREES REQUIRED: 21 TOTAL OF CHAPTER 13 TREES PROVIDED: 21 % OF SHADE TREES REQUIRED: 50% % OF SHADE TREES PROVIDED: 50%* % OF NATIVE TREES REQUIRED: 60% % OF NATIVE TREES PROVIDED: 100%

MINIMUM LANDSCAPE AREAS REQUIREMENT FOR VEHICULAR USE AREAS PER CHAPTER 13-161

18,520 SF X .2 = 3,704 SF TOTAL AREA REQUIRED: 3,704 SF TOTAL AREA PROVIDED: 6,235 SF

TREE TABLES FOR CREDIT AND DEBIT

Diameter (inches)	# Retained on Site	Multiplier for Credit	Credit		
5"- 7"	0	0	0		Total Ch.13-161 Trees Requi
8"- 12"	0	-1	-5		Total Ch.27-130 Trees Requi
13"- 19"	7	-2	-16		Debit for hazardous grand tre
20"- 29"	7	-4	-28		Debit for trees removed
30" or more	2	-10	-20		Subtotal Debit
All Palms	3	-1	-3		Credit for trees to be retained
Total	19		-72*		TOTAL TREES REQUIRED
	•	TOTAL TREES PROVIDED			

Diameter (inches)	# Removed on Site	Multiplier for Debit	Debit
5"- 7"	0	0	0
8"- 12"	11	1	24
13"- 19"	18	2	32
20"- 29"	5	4	20
30" or more	2(61 =31)	Inch per inch/2	31
All Palms	8	1	8
Total	44		115

Argentine Bahiagrass

SUMMARY OF REQUIREMENTS

Required Number of 2" Trees		
Total Ch.13-161 Trees Required	21	
Total Ch.27-130 Trees Required	9	
Debit for hazardous grand tree removal (1 tree)*	4	
Debit for trees removed	115	
Subtotal Debit	149	
Credit for trees to be retained on site	-72	
TOTAL TREES REQUIRED TO BE PLANTED	73	
TOTAL TREES PROVIDED	73	

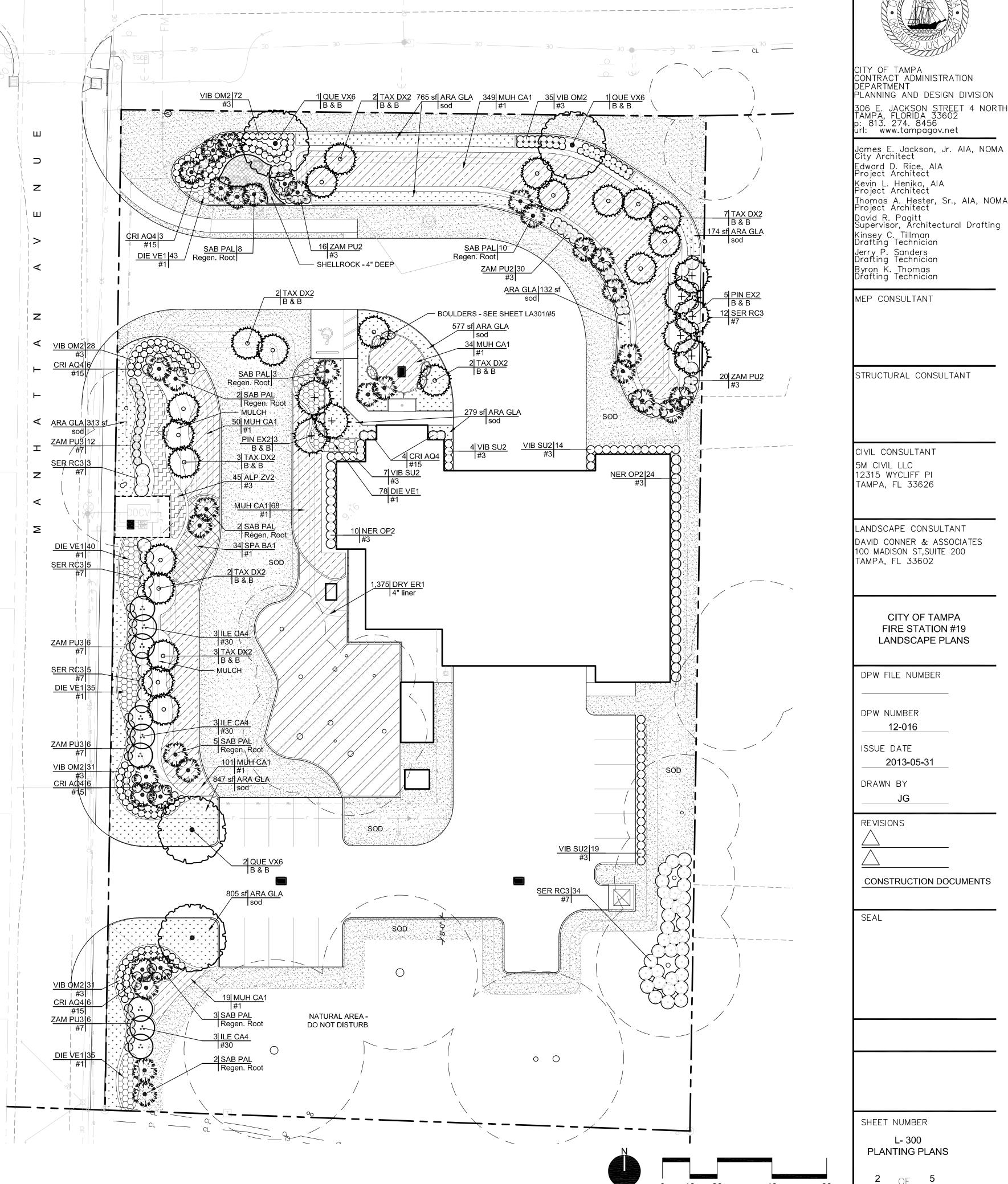
*Replacement Requirement for Hazardous Grand Tree Removed by Owner. City of Tampa Planning and Development, Planning Division requires that (4)2" caliper trees to be planted per hazardous grand tree removed.



TOTAL OF CHAPTER 27 TREES PROVIDED: 9

MINIMUM TREE REQUIREMENT FOR BUFFERS AND SCREENING PER CHAPTER 27-130

1 EVERGREEN TREE (#30 MIN) PER 20 LF OF BUFFER 177 LF/ 20LF = 9 EVERGREEN TREES TOTAL OF CHAPTER 27 TREES REQUIRED: 9





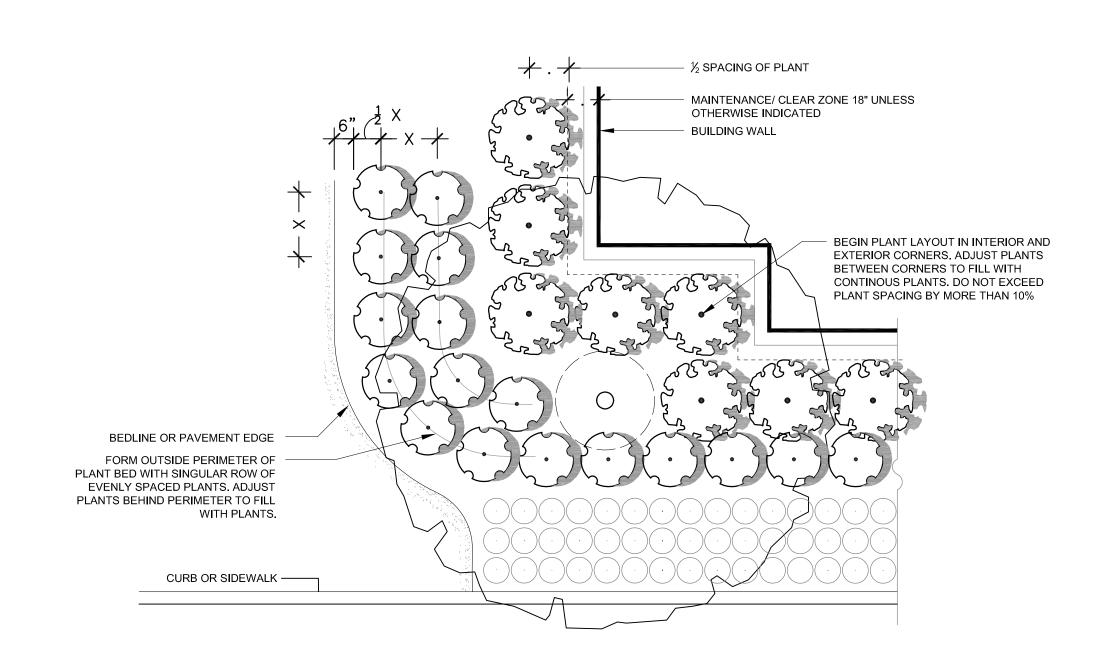
CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT LANNING AND DESIGN DIVISION 306 E. JACKSON STREET 4 NORTH TAMPA, FLORIDA 33602 b: 813. 274. 8456

Thomas A. Hester, Sr., AIA, NOMA Project Architect David R. Pagitt Supervisor, Architectural Drafting

ANDSCAPE CONSULTANT DAVID CONNER & ASSOCIATES 100 MADISON ST,SUITE 200

> CITY OF TAMPA FIRE STATION #19 LANDSCAPE PLANS

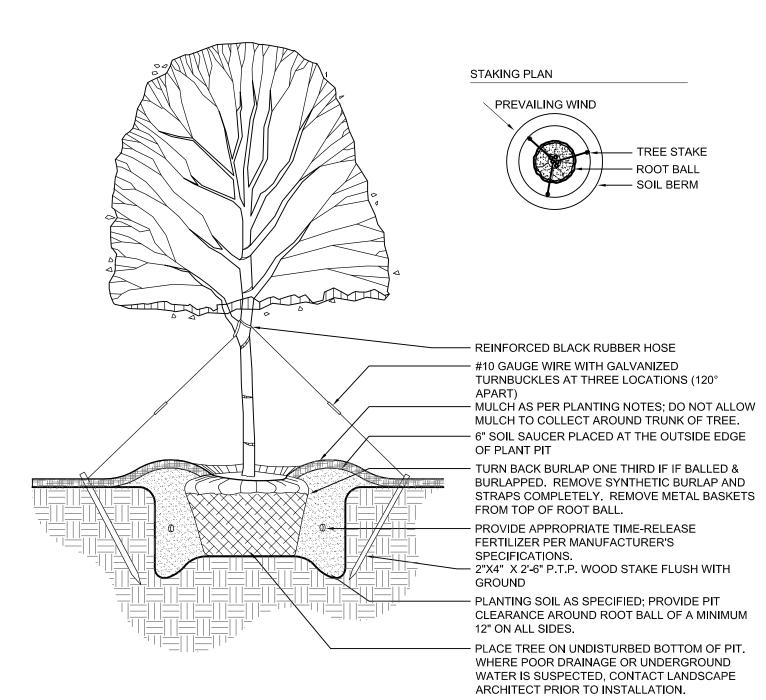
CONSTRUCTION DOCUMENTS



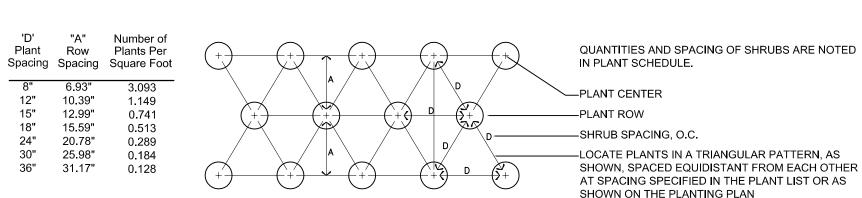
BROKEN FRONDS. NEVER CUT BUD. ALL TRUNKS SHALL BE PREPARED PRIOR TO DELIVERY. DATE PALM TRUNKS SHALL BE "CLASSIC CUT", SABAL PALMS SHALL BE BOOTED OR SHAVED AS SPECIFIED. STAKE PALMS UTILIZING THE "NO NAILS" METHOD. WRAP A TRIPLE LAYER OF BURLAP 2'-0" WIDE AROUND THE TRUNK AT APPROXIMATELY 4'-0" ABOVE THE GROUND. STRAP TWO SHORT 2X4 NAILERS AT THREE LOCATIONS 120 DEGREES APART TO THE TRUNK WITH PACKING STRAPS. DRIVE 2X4 STAKE 3'-0" INTO GROUND 3'-0" FROM TRUNK IN ALIGNMENT WITH NAILERS. NAIL 2X4 BRACES TO NAILER AND STAKE. PLANT ALL PALMS IN PURE SAND. RAISE ROOT BALL SO THAT IT WILL BE 2" ABOVE SURROUNDING GRADE AFTER SETTING. PROVIDE WATERING RING 8" WIDE AND 4" HIGH AROUND PLANTING PIT. COVER WITH MINIMUM 2" MULCH, OR AS SPECIFIED. KEEP MULCH 3" AWAY FROM TRUNK. STAKING PLAN PRUNED AND TIED FRONDS OR HURRICANE CUT IF PERMISSION GRANTED BY OWNER. THREE (3) LAYERS OF BURLAP TO PROTECT 6' -0" M**IN**IMUM PALM TRUNK THREE 2" x 6" x 12" P.T. WOOD BATTENS WITH TWO STEEL BANDS TO SECURE BATTENS THREE 2" x 4" P.T. WOOD BRACES TOE NAIL TO BATTENS. DRIVE BRACES TO UNDISTURBED 2" MULCH MINIMUM PROVIDE APPROPRIATE TIME-RELEASE FERTILIZER PER MANUFACTURER'S RECOMMENDATIONS PURE SAND. CONTRACTOR TO SUBMIT ANY PROPOSED SUBSTITUTE FOR APPROVAL. PROVIDE CLEARANCE AROUND ROOTBALL OF 12" ON ALL SIDES. SET PALM ROOT BALL ON STABLE NATIVE SOIL TO PREVENT SETTLING.

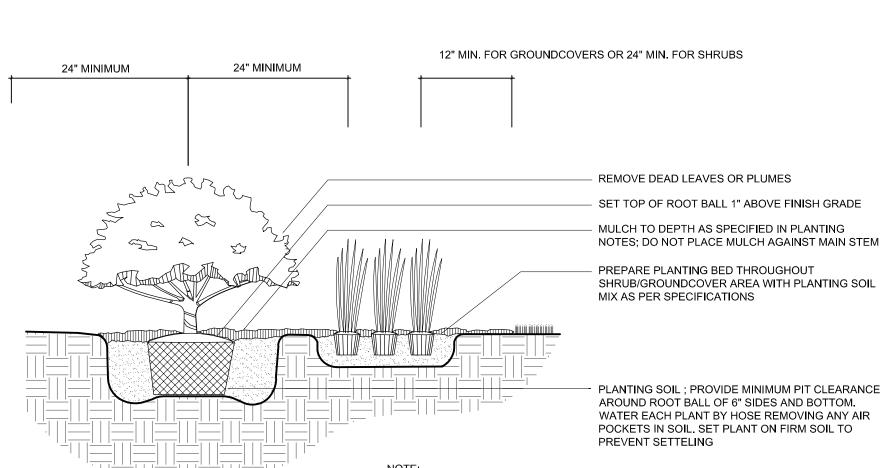
<u>CROWN AND TRUNK</u>
PALM FRONDS SHALL BE TIED UP UNTIL AFTER PLANTING. TIES SHALL BE

REMOVED AFTER PLANTING AS FOLLOWS: DATE PALM, ONE WEEK; WASHINGTON PALM, IMMEDIATELY; QUEEN PALM, IMMEDIATELY; SABAL PALMS WHICH ARE NOT "HURRICANE CUT" SHALL REMAIN TIED FOR SIX MONTHS. REMOVE ALL DEAD OR



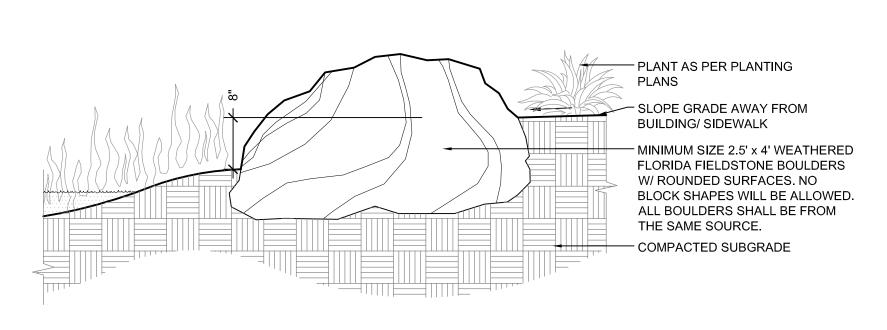
SHRUB AND GROUNDCOVER LAYOUT AT FOUNDATION





PREPARE PLANTING BED, PLANT HOLE AND BACKFILL MATERIAL IN ACCORDANCE WITH THE DETAIL AND WRITTEN SPECIFICATIONS. SLOPE FINISH GRADE OF PLANTING AREA 1/4" PER FOOT TO DRAIN TO EDGE OF BED. SET THE PLANT SO THAT THE TOP OF THE ROOTBALL IS 1/2" ABOVE FINISH GRADE ADJACENT TO THE PLANT. ALIGN EACH SHRUB AND GROUNDCOVER PLANT SO THAT THEY ARE PLANTED IN STRAIGHT ROWS, AND EQUALLY SPACED AT THE DISTANCE SPECIFIED. COVER PLANTING BED WITH SPECIFIED DEPTH OF MULCH. KEEP MULCH AWAY FROM THE TRUNK OF PLANT.

SHRUB AND GROUNDCOVER SPACING



GENERAL LANDSCAPE NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, IN "FULL", ALL LANDSCAPE PLANTING AREAS AFTER RECEIPT OF WRITTEN ACCEPTANCE BY THE OWNER. "IN FULL" MEANS WATERING, WEEDING, PEST CONTROL, MULCHING, MOWING AND FERTILIZING. MAINTENANCE PERIOD SHALL BE 90 DAYS..

2.THE CONTRACTOR SHALL PROVIDE A ONE YEAR WRITTEN GUARANTEE FOR ALL INSTALLED PLANT MATERIAL..

VARIATION FROM THE EXISTING CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3.THE CONTRACTOR SHALL STAKE THE LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED LINES FOR REVIEW BY THE OWNERS REPRESENTATIVE PRIOR TO START OF ANY PLANTING.

4.THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL WRITTEN PLANT QUANTITIES PRIOR TO INITIATION OF THE WORK. IN THE EVENT THAT THE PLANS CONTRADICT THE PLANT LIST, THE PLANS RULE.

5.THE CONTRACTOR SHALL BE FAMILIAR WITH AND ACCEPT THE EXISTING SITE CONDITIONS PRIOR TO INITIATION OF THE WORK. ANY

6.THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. DRAINAGE STRUCTURES, CURBS,

SIDEWALKS AND ANY OTHER OBJECTS WHICH MIGHT BE DAMAGED DURING THE WORK.

8.THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER SUBCONTRACTORS ON THE PROJECT. THE CONTRACTOR

7.THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL NECESSARY REPAIRS TO DAMAGE CAUSED BY HIS WORK AT NO

SHALL NOT PROCEED WITH PLANT INSTALLATION PRIOR TO THE INSTALLATION AND OPERATION OF THE LANDSCAPE IRRIGATION SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO PLANT MATERIAL CAUSED BY INSUFFICIENT WATER.

9.THE CONTRACTOR IS RESPONSIBLE FOR ALL PREPARATION OF PLANTING BEDS FROM FINISH GRADE. PREPARATION SHALL INCLUDE APPLICATION OF PRE-EMERGENT HERBICIDES, LOOSENING SOIL TO A DEPTH OF 8", AND INCORPORATION OF PROPER SOIL AMENDMENTS INCLUDING PLANTING MIX, FERTILIZERS, AND pH ADJUSTERS AS RECOMMENDED BY SOILS TEST.

10.THE CONTRACTOR SHALL TEST THE EXISTING SOILS FOR SOIL COMPOSITION, ORGANIC CONTENT AND SOIL ph. SOIL TEST SHALL SERVE AS THE BASIS FOR CONTRACTOR RECOMMENDED SOIL AMENDMENTS. PROVIDE PROPOSAL FOR SOIL AMENDMENTS AS RECOMMENDED IN SOIL TEST. PROVIDE LANDSCAPE ARCHITECT A COPY OF SOIL TEST WITH LOCATION, DATE, AND LABORATORY CLEARLY LABELED.

LANDSCAPE PLANTING NOTES:

1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL FREE OF PESTS AND DISEASE.

ADDITIONAL COST TO THE OWNER OR LANDSCAPE ARCHITECT.

2.ALL PLANTS SHALL BE FLORIDA NO. 1 OR BETTER, AS GRADED IN FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.

3.ALL PLANTS ARE SUBJECT TO APPROVAL BY THE OWNERS REPRESENTATIVE, BEFORE, DURING AND AFTER INSTALATION AS PER SPECIFICATIONS.

4.ALL SINGLE-TRUNKED TREES SHALL BE STRAIGHT TRUNKED WITH ONE CENTRAL LEADER AND FULLY CROWNED.

5.STAKE AND GUY TREES AS SHOWN IN PLANTING DETAILS WHEN TREE IS SUSCEPTIBLE TO SHIFTING SOILS OR HIGH WIND CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR INSURING THAT TREES ARE STABLE AND DO NOT REPRESENT A HAZARD TO THE PUBLIC. GUYS TO BE REMOVED AFTER ONE COMPLETE GROWING SEASON.

6.ALL MULCH PLANTING AREAS SHALL BE A MINIMUM OF 3" MINI PINE BARK NUGGETS...

7.ALL PLANTING AREAS SHALL HAVE A MINIMUM 12" OF NON COMPACTED NATIVE SOIL INCORPORATED INTO TOPSOIL. REMOVE SOIL DAMAGED WITH BUILDING CONSTRUCTION DEBRIS WITHIN 12" OF THE FINISH GRADE IN PLANTING AREAS PRIOR TO FINAL GRADING. LAWN AREAS SHALL HAVE A MIN OF 3" TOPSOIL ROTO-TILLED INTO TOP 8" OF CLEAN FILL.

8.ALL TREES SHALL BE FREE OF OPEN WOUNDS AND WOUND SCARS IN THE CLEAR TRUNK AREA.

9.SYNTHETIC BURLAP MUST BE TOTALLY REMOVED PRIOR TO INSTALLATION OF PLANT MATERIAL. IF NATURAL BURLAP IS USED, IT MAY BE TURNED DOWN 1/3 OF THE ROOTBALL. WIRE BASKETS AND STRAPS SHALL BE REMOVED FROM THE TOP OF THE ROOTBALL.

10.ALL SHADE TREES SHALL HAVE A MIN. OF 7' CLEAR TRUNK OVER SIDEWALKS (UNLESS OTHERWISE NOTED).

11.CONTRACTOR SHALL NOT DEVIATE FROM PLANT SCHEDULE SPECIFICATIONS FOR PLANT MATERIAL.



CONTRACT ADMINISTRATION DEPARTMENT LANNING AND DESIGN DIVISION 06 E. JACKSON STREET 4 NORTH AMPA, FLORIDA 33602 : 813. 274. 8456

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> CITY OF TAMPA FIRE STATION #19 LANDSCAPE PLANS

DPW FILE NUMBER

DPW NUMBER 12-016

ISSUE DATE

2013-05-31 DRAWN BY

REVISIONS

CONSTRUCTION DOCUMENTS

SEAL

SHEET NUMBER LA- 301

PLANTING NOTES AND DETAILS

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>
EST LCS RCS CST SST	RAIN BIRD 1806 15 STRIP SERIES TURF SPRAY 6" POPUP.	28
$\bigcirc\hspace{-0.1cm} \bigcirc \hspace{-0.1cm} \bigcirc -$	RAIN BIRD 1806 8 SERIES MPR TURF SPRAY 6" POPUP.	12
Δ	RAIN BIRD 1806 15 STRIP SERIES TURF SPRAY 6" POPUP.	14
Q T H F	RAIN BIRD 1806 10 SERIES MPR TURF SPRAY 6" POPUP.	12
$\bigcirc \hspace{-0.2cm}\bigcirc -0.2c$	RAIN BIRD 1806 12 SERIES MPR TURF SPRAY 6" POPUP.	62
Q T H TT TQ F	RAIN BIRD 1806 15 SERIES MPR TURF SPRAY 6" POPUP.	5
© © © © © © 1 4 6 8 10 12 15 18	RAIN BIRD 1806 ADJ TURF SPRAY 6" POPUP.	33
	HUNTER MP1000 PROS-06-CV TURF ROTATOR, 6" (15.24 CM) POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.	2
⟨K ⟩⟨ G ⟩⟨ R ⟩	HUNTER MP2000 W/ RAINBIRD 1806-PRS TURF ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON 1806 PRS BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	11
⟨B⟩⟨Y⟩⟨ A ⟩	HUNTER MP3000 W/ RAINBIRD 1806 PRS TURF ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON 1806 PRS BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	14
	HUNTER MP CORNER W/ RAINBIRD 1806 PRS TURF ROTATOR, 6" (15.24CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON 1806 PRS BODY. T=TURQUOISE ADJ ARC 45-105.	1
₩ © ◎	HUNTER MP1000 W/ RAINBIRD 1812 PRS SHRUB ROTATOR, 12" (30.48 CM) POP-UP, MP ROTATOR NOZZLE. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC ON 1806 PRS BODY.	2
KGR	HUNTER MP2000 W/ RAINBIRD 1812 PRS SHRUB ROTATOR, 12" (30.48 CM) POP-UP, MP ROTATOR NOZZLE. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC ON 1806 PRS BODY.	14
® ØØ	HUNTER MP3000 W/ RAINBIRD 1812 SHRUB ROTATOR, 12" (30.48 CM) POP-UP, MP ROTARY NOZZLE. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC ON PRS40 BODY.	5
№ № © 25 50 10 20	HUNTER PCB FLOOD BUBBLER, 1/2" FIPT.	78

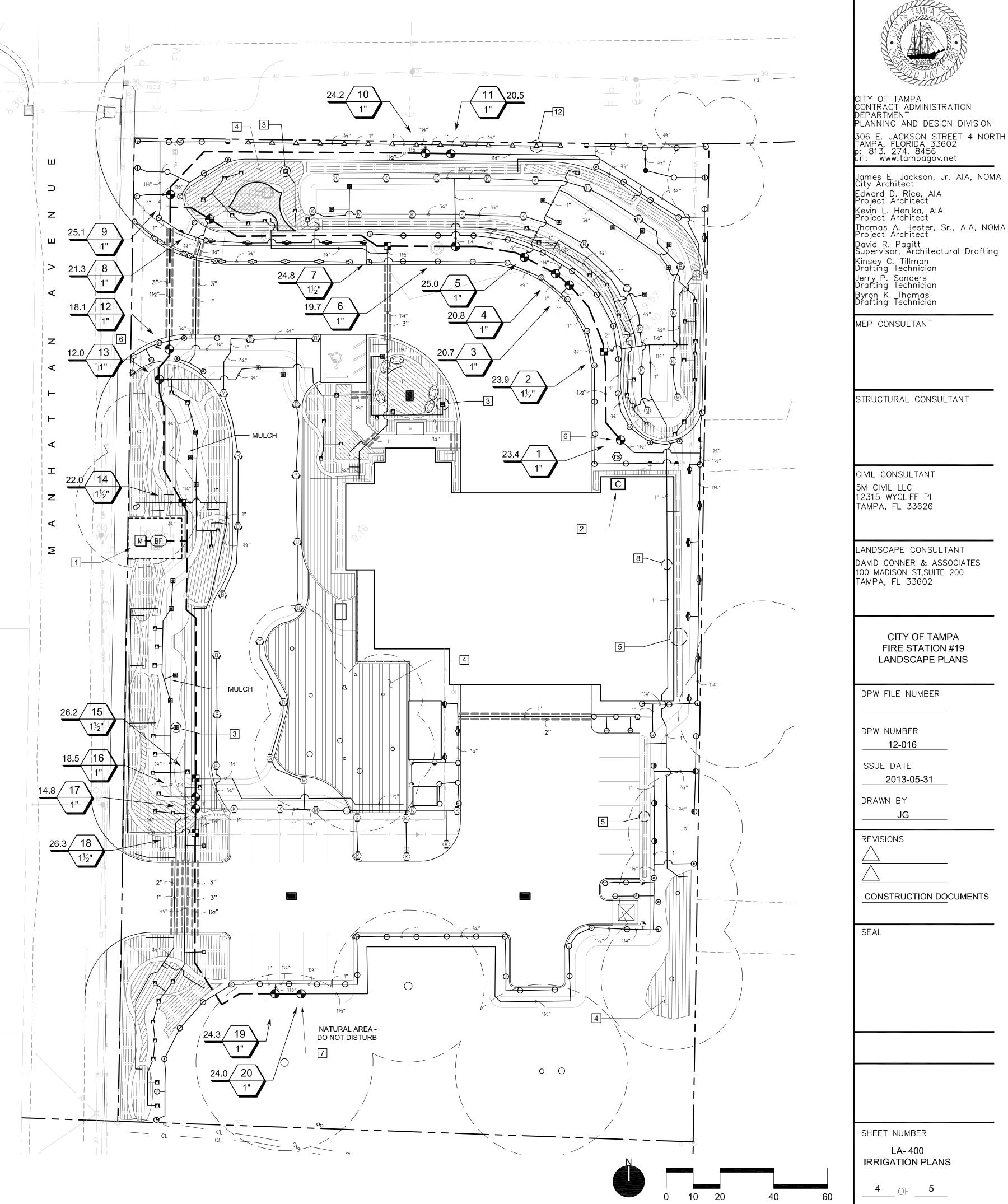
IRRIGATION SO	CHEDULE	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD XCZ-150-COM HIGH FLOW CONTROL ZONE KIT WITH 1-1/2" PESB VALVE, TWO 1" FILTERS AND TWO 40PSI PRESSURE REGULATORS.	5
	AREA TO RECEIVE DRIPLINE RAIN BIRD LD-09-12 (18) LANDSCAPE DRIPLINE WITH 0.92GPH EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN.	5,835 S.F.
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFD-09-12 (22) XFD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.9GPH EMITTERS AT 12.0" O.C. DRIPLINE LATERALS SPACED AT 22.0" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV RESISTANT.	7,357 S.F.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
•	RAIN BIRD PESB ELECTRIC REMOTE CONTROL SCRUBBER VALVE	15
BF	WATTS 007 1-1/2" MAX. FLOW RATE IS 7.5 FT/S.	1
С	HUNTER IC-2400-PL MODULAR CONTROLLER, 24 STATIONS, OUTDOOR MODEL, PLASTIC CABINET. COMMERCIAL USE. WITH THREE ICM-600 MODULES INCLUDED.	1
(B)	HUNTER WSS-SEN WIRELESS SOLAR, RAIN FREEZE SENSOR WITH OUTDOOR INTERFACE, CONNECTS TO HUNTER X-CORE AND ACC CONTROLLERS, INSTALL AS NOTED. INCLUDES GUTTER MOUNT BRACKET. MODULE NOT INCLUDED.	1
M	WATER METER 1" 28 GPM AT 60 PSI REQUIRED	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 PVC SCHEDULE 40 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE.	5,189 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40	690.5 L.F.
V	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION. 'alve Callout Valve Number	245.6 L.F.
# # # •	Valve Flow	
#" •	—— Valve Size	

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	<u>DETAIL</u>
1	PROPOSED IRRIGATION METER - 28 GPM AT 60 PSI REQ'D	
2	PROPOSED IRRIGATION CONTROLLER AND WEATHER SENSOR - COORDINATE LOCATION WITH OWNER	
3	BUBBLER FOR NEW TREES (TYP) REFER TO LANDSCAPE PLAN	
4	DRIP LINE FOR LANDSCAPED BEDS (TYP) REFER TO LANDSCAPE PLAN	
5	DRIP LINE FOR HEDGE ROW (TWO LINES 18" O.C. MIN.) - REFER TO LANDSCAPE PLAN	
6	VALVE LOCATIONS ARE DIAGRAMMATIC, INSTALL VALVES IN "LOW TRAFFIC" AREAS WITH A MIN. CLEARANCE OF 12" BETWEEN THE VALVE BOX AND ANY FENCE, WALL, SIDEWALK, PAVEMENT OR SODLINE	

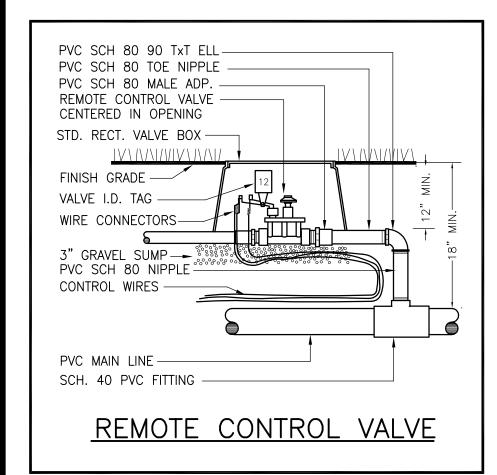
- STUB OUT TWO SPARE WIRES IN VALVE BOX
- SHOWN FOR GRAPHIC CLARITY INSTALL PIPE WITHIN
- SHOWN FOR GRAPHIC CLARITY INSTALL MAINLINE AND VALVES WITHIN PROPERTY LINE
- NON-IRRIGATED SOD
- ISOLATION GATE VALVE LINE SIZE
- 9` X 18` SIDE STRIPS SPACED 9` O.C.

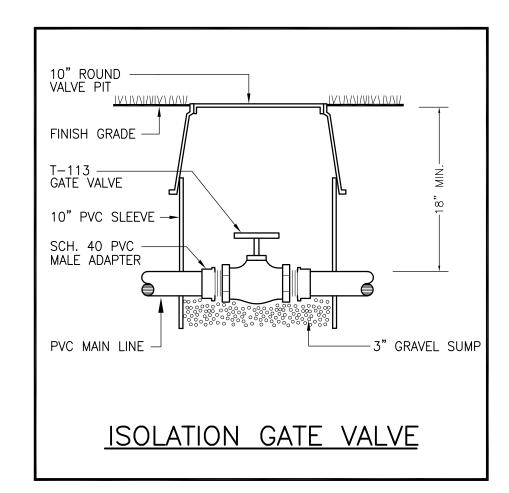


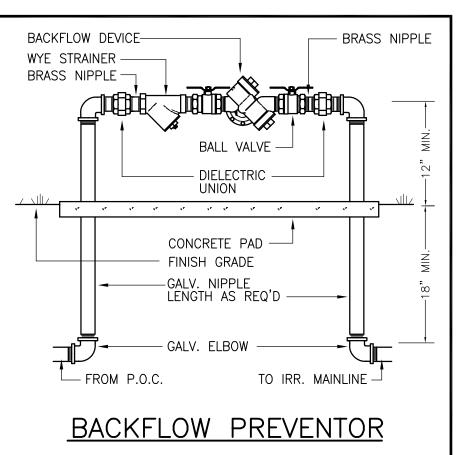


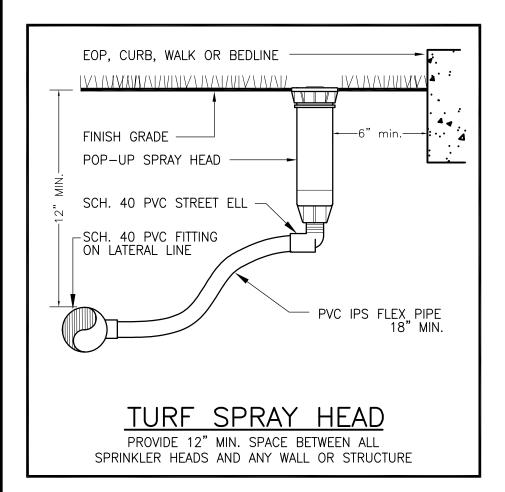


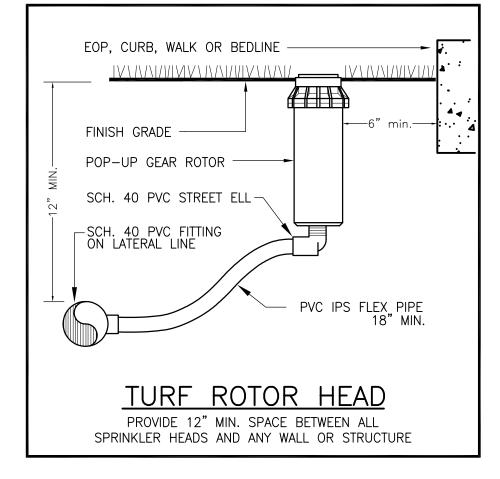
Thomas A. Hester, Sr., AIA, NOMA Project Architect

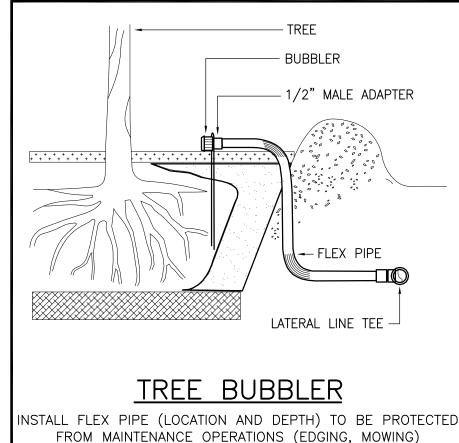


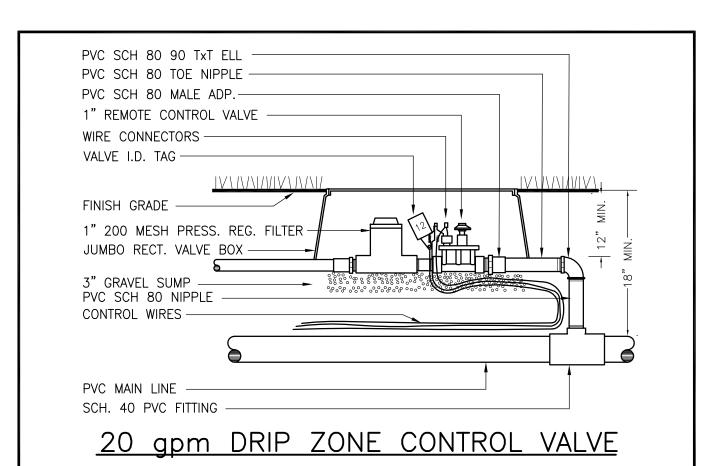


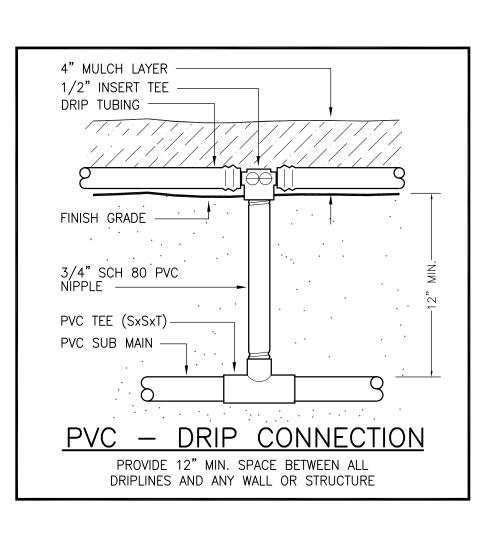


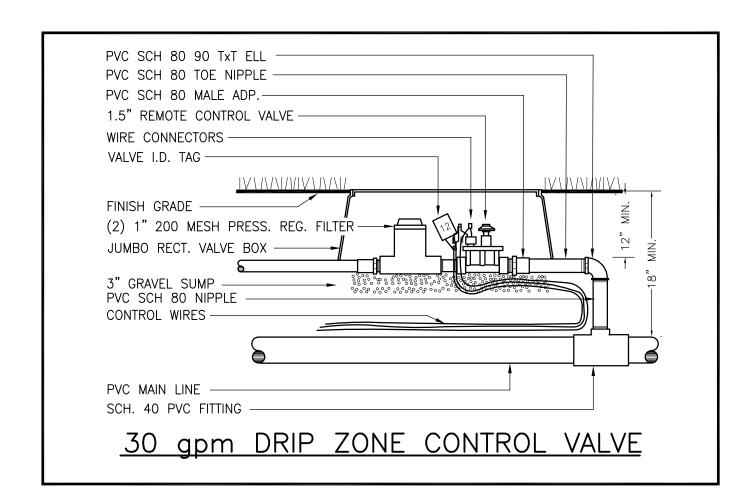


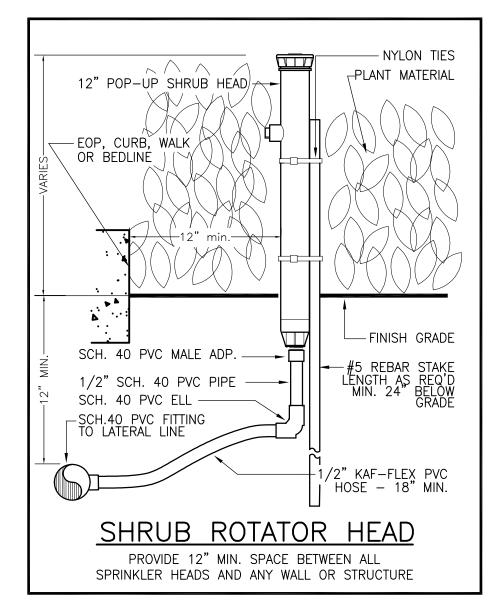


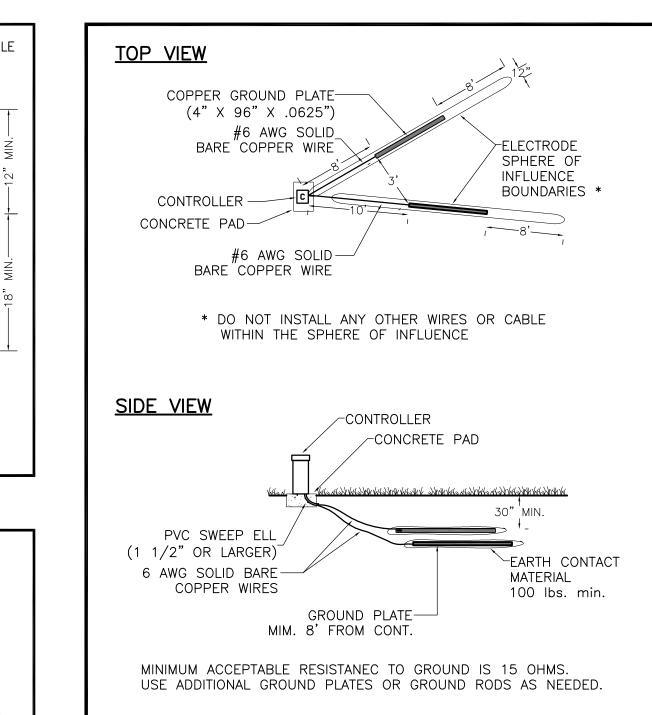


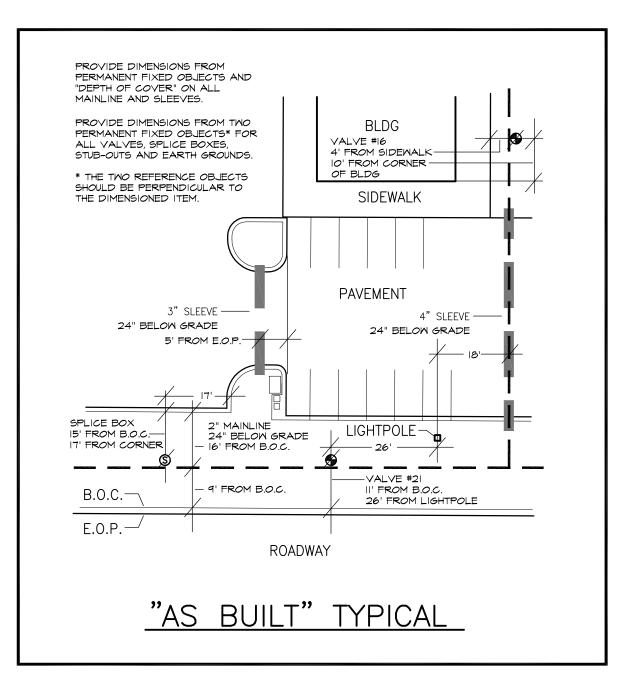












CONTROLLER GROUNDING

IRRIGATION NOTES:

- I. Irrigation system design requirements: 28 GPM @ a minimum of 60 PSI at the point of connection.

 The Irrigation Contractor shall verify the available GPM and PSI prior to installation of the system.
- 2. Do not willfully install the irrigation system as shown on the drawings when it is obvious in the field that conditions exist that might not have been considered in the design process. For example: obstructions, grade differences, water levels, dimensional differences, etc. Refer to the Landscape Plan to avoid conflicts with proposed trees or shrubs.
- 3. Piping may sometimes be indicated as being located in unlikely areas: i.e., under buildings or pavement, outside of property lines, in lakes or ditches, etc. This is done for graphic clarity only. Whenever possible, piping is to be installed in open, green areas.
- 4. If required, the Irrigation Contractor shall provide the necessary "Right of Way" use permits.
- 5. Pipe sizes shall conform to those on the drawings. Substituting with smaller pipe sizes will not be permitted.
- 6. Mainline is to be installed with a minimum of 18" depth of cover. Lateral lines are to be installed with a minimum of 12" depth of cover.
- 7. Unless otherwise indicated, all sleeves are to be PVC Sch 40 and two (2) nominal sizes larger than the pipe to be sleeved. For example: The sleeve for a 2" pipe shall be 3". No irrigation sleeve shall be smaller than 2".
- 8. Wherever practical, install valves in mulched beds and/or out of high traffic areas. All valves, flush valves and wire splices shall be installed in Rain Bird wide flanged, structural foam "plastic" valves boxes as follows:

Remote Control Valves #VB-STD, 12" std. rect. box
Isolation Gate Valves #VB-10RND, 10" round box
Wire Splices #VB-10RND, 10" round box
Drip Zone Valve / Filter Assy #VB-SPR, Super Jumbo Rect. box

- 9. Refer to Valve Designation Symbols for controller, station number and designed flow rate for each remote control valve.
- 10. All 24 volt control cable to be UL Listed, single strand, type UF 600 Volt control cable. Size and color as follows:

Common Wires - size AWG #14 or larger and WHITE in color.

Hot Wires - size AWG #16 or larger and RED in color.

Spare Wires - size AWG #16 or larger and BLUE in color.

- 11. All splices to the 24 volt control wiring shall be made with Rain Bird #DBTWC 24-600 volt, direct bury splice kits.
- 12. All control valve wires shall be bundled and taped together at 20' intervals and placed along the side of the mainline pipe.
- 13. All pop-up sprinkler heads shall be installed level and flush to grade. Mount all sprinklers on flexible connections as follows:

1/2" inlet spray heads
18" of Heavy Wall PVC IPS Hose
3/4" inlet rotor heads
18" of Heavy Wall PVC IPS Hose

- 14. The tops of all shrub sprinklers shall be installed 12" above the height of the surrounding plant material. For plant heights of 12" or more, support the riser with a #5 rebar stake and nylon cable ties. All risers shall be placed a minimum of 12" from any sidewalk, edge of pavement or structure.
- I5. Location of all sprinkler heads shall be site adjusted to minimize water overthrow onto building surfaces and walkways. Throttle valves on spray zones as required to prevent fogging.
- I G. Install drip tubing at grade and cover with mulch. Typical spacing for drip tubing is 18" to 24" on center. Spacing to be determined by plant layout. Refer to Landscape Plan. Anchor tubing every 7' with 8" long wire tubing stakes. Install flush valve assemblies at all tubing "dead ends".
- 17. Exact controller location(s) shall be coordinated with an Owner's Representative prior to installation.

 Unless otherwise stated, the General Contractor shall provide 110 volt power to the controller location(s). The Irrigation Contractor is responsible for the connection from the power source to the controller(s)
- 18. At each irrigation controller, install a "secondary surge arrester" to the incoming (120 volt) power supply (Intermatic #AG2401 or equal).
- 19. At each irrigation controller, install an "supplementary earth ground grid" with a minimum of two (2) 4" x 96" grounding plates. Test the resistance to earth per NFPA Standard #780. A acceptable earth ground should have 15 ohms or less resistance. Use more plates or grounding rods as needed to achieve the desired resistance reading.
- 20. A weather based sensor with interface shall be connected to the irrigation controller. The sensor/ interface shall adjust the irrigation program based on daily weather readings. The sensor shall be installed to meet local codes and/or minimum manufacturer's recommendations. Obstructions, vandalism and ease of service shall be considered in locating the device.
- 21. The IRRIGATION CONTRACTOR shall prepare an AS-BUILT drawing on reproducible paper detailing the actual installation of the irrigation system. The AS-BUILT drawings shall locate all main line piping, control wires, wire splices, sleeves and valves by showing exact measurements from permanent features (buildings, edge of pavement, power poles, fire hydrants, etc.). Include depth of cover on mainline and sleeves.
- 22. No product substitutions will be permitted without the written permission of the Owner's Representative. Irrigation Contractor to provide submittals to the Owner's Representative for approval prior to installation.
- 23. Any other equipment required that is not other wise detailed or specified shall be installed as per manufacturer's recommendations and local code.



CITY OF TAMPA
CONTRACT ADMINISTRATION
DEPARTMENT
PLANNING AND DESIGN DIVISION
306 E. JACKSON STREET 4 NORTH
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LANDSCAPE CONSULTANT
DAVID CONNER & ASSOCIATES
100 MADISON ST,SUITE 200
TAMPA, FL 33602

CITY OF TAMPA FIRE STATION #19 LANDSCAPE PLANS

DPW FILE NUMBER

DPW NUMBER
______12-016

ISSUE DATE **2013-05-31**

DRAWN BY **JG**

REVISIONS

CONSTRUCTION DOCUMENTS

SEAL

SHEET NUMBER

LA- 401 IRRIGATION NOTES AND DETAILS

5 OF 5

FIRE STATION 19

CONSTRUCTION DOCUMENTS

May 31, 2013

PROJECT LOCATION 7910 INTERBAY BLVD TAMPA, FL 33616

LEGAL DESCRIPTION

THE WEST 213.96 FEET OF THE FOLLOWING DESCRIBED PARCEL

(OFFICIAL RECORD BOOK 20090 PAGE 1294 OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA)

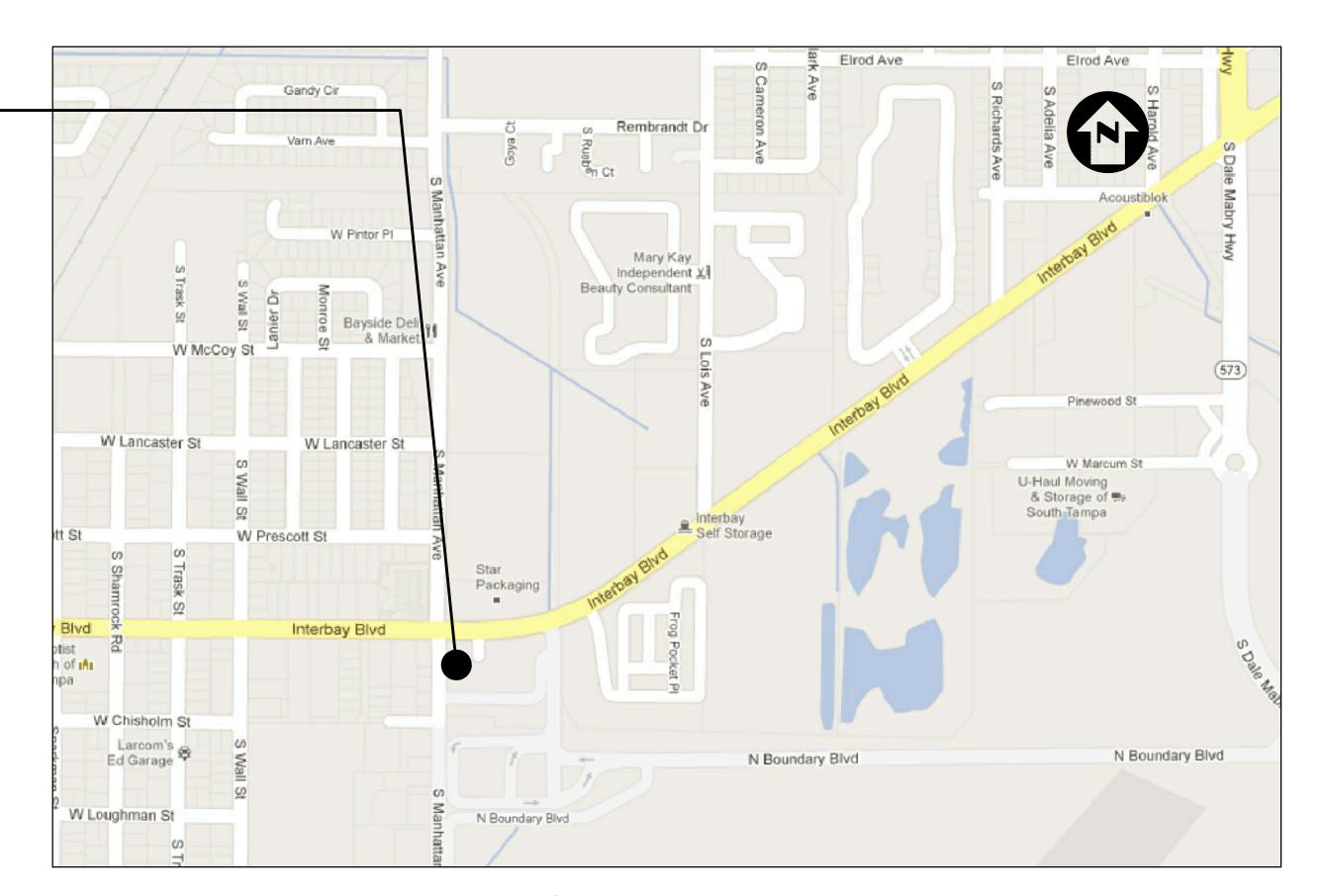
FROM THE SOUTHWEST CORNER OF SECTION 16, TOWNSHIP 30 SOUTH, RANGE 18 EAST, RUN THENCE NORTH 50 FEET, ALONG THE WEST BOUNDARY OF SAID SECTION 16, THENCE SOUTH 88'55'00" EAST, 30 FEET, PARALLEL WITH THE SOUTH BOUNDARY OF SAID SECTION 16, FOR A POINT OF BEGINNING; THENCE NORTH 365.29 FEET, PARALLEL TO THE WEST BOUNDARY OF SAID SECTION 16, TO THE SOUTHERLY RIGHT-OF-WAY LINE OF INTERBAY BOULEVARD (50 FEET FROM CENTER LINE), THENCE NORTH 89'40'00" EAST, 194.73 FEET, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE TO A POINT OF CURVATURE THENCE NORTHEASTERLY ALONG A 4"47.5" CURVE TO THE LEFT AN ARC DISTANCE OF 327.11 FEET, (CHORD NORTH 81"23'00" EAST, 326.44 FEET) TO THE WESTERLY RIGHT-OF-WAY LINE OF MACDILL FIELD SPUR TRACK (25 FEET FROM CENTER LINE; THENCE SOUTHERLY, 475.5 FEET MORE OR LESS, ALONG THE WESTERLY RIGHT-OF-WAY LINE OF MACDILL FIELD SPUR TRACK, AND THE WESTERLY RIGHT-OF-WAY LINE OF THE WESTERLY SIDING BRANCHING FROM SAID SPUR TRACK (25 FEET FROM CENTER LINE), TO THE SOUTH BOUNDARY OF SAID SECTION 16, THENCE NORTH, 88' 55'00" WEST, 257.6 FEET, ALONG THE SOUTH BOUNDARY OF SAID SECTION 16, THENCE NORTH 50 FEET, THENCE NORTH 88'55'00' WEST 220 FEET TO THE POINT OF BEGINNING AND BEING A PORTION OF THE SW 1/4 OF THE SW 1/4 OF SECTION 16, TOWNSHIP 30 SOUTH RANGE 18 EAST, HILLSBOROUGH COUNTY, FLORIDA, EXCEPT THE EASEMENT FOR SIDEWALK PURPOSES OF THE EAST 6 FEET OF THE WEST 36 FEET OF THE SOUTHWEST 1/4 OF SECTION 16, TOWNSHIP 30 SOUTH, RANGE 18 EAST, AND EXCEPT THE PROPERTY DESCRIBED IN THE JUDGMENT ON THE DECLARATION OF TAKING, RECORDED IN THE OFFICE OF THE CLERK OF THE UNITED STATES DISTRICT COURT, TAMPA DIVISION, IN THE CIVIL ORDER BOOK 7, PAGE 105, OF THE RECORDS OF SAID OFFICE.



Professional Civil Engineering Services

12315 Wycliff Pl Tampa, FL 33626 PHONE: (813) 404-8872 www.5mcivil.com

FBPR Certificate of Authorization No: 26,929



VICINITY MAP

HILLSBOROUGH COUNTY, FLORIDA Section 16, Township 30S, Range 18E

OWNER

City of Tampa 306 E. Jackson Street Tampa, FL 33602 813-274-8773

DRAWING INDEX

(TOTAL NUMBER OF SHEETS = 17)

GENERAL

- **Cover Sheet**
- Construction Notes, Legend & Symbology
- **Existing Conditions/Demolition Plan**

CIVIL

- Master Site Plan
- Paving, Grading and Drainage Plan
- **Utility Service Plan**

CIVIL DETAILS

- CD-1 PGD Details
- **CD-2** Wastewater Details
- CD-3 Wastewater Details
- CD-4 Lift Station Details
- CD-5 Water Details
- CD-6 Water Details

LANDSCAPING

- LA-002 Tree Preservation, Protection and Removal Plan
- LA-300 Planting Plans
- LA-301 Planting Notes and Details
- LA-400 Irrigation Plans
- LA-401 Irrigation Notes and Details

REFERENCE (FDOT Design Standard Indexes)

- 001 Standard Abbreviations
- 102 Temporary Erosion and Sediment Control
- 300 Curb & Curb and Gutter
- 304 Public Sidewalk Curb Ramps
- 310 Concrete Sidewalk

5/31/13	CONSTRUCTION DOCUMENTS
DATE	REVISION

FIRE STATION 19

Engineer of Record: Jesus A. Merly, PE FL Reg No. 58113

CONSTRUCTION NOTES

- Specific requirements of CITY OF TAMPA (COT) specifications and standards are incorporated into the contract documents by reference
- Specific requirements of the Florida Department of Transportation's Roadway and Traffic Design Standards, and Standard Specifications for Road and Bridge Construction are incorporated into the contract documents by reference.
- All specifications and documents referred to in these plans shall be of the
- The Contractor shall maintain copies of all applicable permits on—site and shall
- be responsible to adhere to all permit conditions during construction. The Contractor shall become familiar with the permit and inspection requirements specified by the various governmental agencies. The Contractor shall obtain all necessary permits prior to construction, and schedule any
- All work performed shall comply with the regulations and ordinances of the various governmental agencies having jurisdiction over the work.

necessary inspections according to agency instructions.

- Contractor shall submit shop drawings on all precast and manufactured items to the owner's engineer for approval. Failure to obtain approval before installation may result in removal and replacement at Contractor's expense.
- . Contractor shall locate all existing utilities before ordering materials and casting
- Work performed under this contract shall interface smoothly with other work being performed on site by other Contractors and utility companies. It will be necessary for the Contractor to coordinate and schedule activities, where necessary, with other Contractors and utility companies, including electric, cable, telephone and utility company subcontractors
- 10. It shall be the responsibility of the Contractor to obtain the required permits to perform work in the public right-of-way.
- . Contractor shall provide appropriate signage for construction traffic in accordance with FDOT Standard Index 600 and the United States Department of Transportation Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
- 2. The Contractor shall endeavor to protect private and public property. An damage caused by the Contractor in the performance of his work shall be corrected to the satisfaction of the engineer in a timely manner. Payment shall not be made for this work.
- 13. Overall cleanup shall be accomplished by the Contractor in accordance with county standards or as directed by the engineer. Any and all expenses incurred for this work shall be included in the price bid for other items.
- 14. Any damage to state, county, or local roads caused by the Contractor's hauling or excavation equipment shall be repaired by the Contractor in a timely manner to the satisfaction of the Engineer. Payment shall not be made for this work.

<u>SAFETY</u>

- During the construction and maintenance of this project, all safety regulations are to be enforced. The Contractor or his representative shall be responsible for the control and safety of the traveling public and the safety of Contractor's personnel.
- . Labor safety regulations shall conform to the provisions set forth by OSHA.
- Contractor shall provide and maintain its own safety equipment in accordance with its health & safety program and all other applicable legal and health and safety requirements. The Contractor is also responsible for providing its employees and subcontractors with adequate information and training to ensure that all employees and subcontractors and subcontractors' employees comply with all applicable requirements. Contractor shall remain in compliance with all occupation safety and health regulations as well as the environmental protection laws. The following is not to be perceived as the entire safety program but iust basic requirements
- All excavations by the Contractor shall conform to the requirements of the Department of Labor's Occupational Safety and Health Administration rules and regulations. Particular attention must be paid to the construction standards for excavations, 29 CFR Part 1926, subpart P
- The minimum standards as set forth in the current edition of "The State Of Florida, Manual On Traffic Control And Safe Practices For Street And Highway Construction, Maintenance and Utility Operations" shall be followed in the design application, installation, maintenance and removal of all traffic control devices warning devices and barriers necessary to protect the public and workmen from hazards within the project limits.
- It shall be the sole responsibility of the Contractor to comply and enforce all applicable safetyregulations. The above information has been provided for the Contractor's information only and does not imply that the owner or engineer will inspect and/or enforce safety regulations.

SURVEY

- Contractor shall protect property markers, monuments temporary benchmarks and other survey control points. The contractor's registered surveyor shall replace to existing or better condition any disturbed property markers, monuments and temporary benchmarks to their original condition at the Contractor's expense.
- All points and monuments shall be surveyed upon mobilization to verify their accuracy. Any discrepancies discovered must be brought to the attention of the engineer in writing.
- Upon completion of construction, the contractor shall furnish the owner's engineer with complete "as-built" information certified by a registered land surveyor. This "as-built" information shall include invert elevations, location of fittings, location of structures for all utilities installed. as well as top of bank. toe of slope and grade break locations and elevations for pond and ditch construction. No engineer's certifications for certificate of occupancy purposes will be made until this information is received and approved by the owner's
- The topographical survey depicted within this plan set was based on a field survey date of 6/30/2011. Existing topography and features shown are indicative of field conditions at that time.
- All utilities depicted hereon are from visible evidence only. Surveyor did not contact subsurface utility locator service.
- No underground foundations or footers were excavated or located for this

THE BASIS OF BEARING IS REFERENCED FROM THE SOUTH LINE OF THE SUBJECT PARCEL AS SHOWN ON THE MAP OF SURVEY BEING N87.56'57"W.

THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, FILE # 15871, EFFECTIVE DATE: MAY 30, 2011 AT 8:00 A.M., ISSUED THROUGH THE ÖFFICE OF: SOUTHLAND TITLE COMPANY, 3321 W. KENNEDY BLVD. TAMPA, FL 33609, PHONE: 813-879-8882.

3. SHEET 10 OF 15 OF A BOUNDARY SURVEY OF MACDILL AIR FORCE BASE NVZR-02-0109, PREPARED BY GEORGE F. YOUNG, INC., 8621 MARTIN LUTHER KING BOULEVARD, TAMPA, FL 33610, PHONE 813-223-1747, DATED 5/21/03 WAS UTILIZED IN THE PREPARATION OF THIS SURVEY.

4. ELEVATIONS ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88) CONTROL BENCHMARK USED IS A = CITY OF TAMPA BENCHMARK, DESIGNATED HV-02 0058 HAVING A PUBLISHED ELEVATION OF 10.301 (FEET).

LIMITATIONS:

- THERE MAY BE ITEMS DRAWN OUT OF SCALE AND / OR MOVED ON THE MAP OF SURVEY TO GRAPHICALLY SHOW THEIR LOCATION. PRINTED DIMENSIONS SHOWN ON THE SURVEY SUPERSEDE SCALED DIMENSIONS.
- 2. UNDERGROUND FOUNDATIONS AND THEIR LOCATIONS HAVE NOT BEEN DETERMINED. IRRIGATION EQUIPMENT AND / OR THEIR APPURTENANCES HAVE NOT BEEN LOCATED UNLESS OTHERWISE SHOWN HEREON.
- 4. ALL NON EXOTIC TREES 4 INCHES IN DIAMETER AND ABOVE HAVE BEEN LOCATED WITH COMMON NAME AND APPROXIMATE DIAMETER BREAST HIGH. SMALLER TREES. NON-PROTECTED SPECIES (INCLUDING ORNAMENTALS) AND TREES WITHIN JURISDICTIONAL AREAS (IF ANY) HAVE NOT BEEN LOCATED. TREES BY NATURE ARE IRREGULAR IN SIZE AND SHAPE. EVERY EFFORT IS MADE TO ACCURATELY LOCATE TREES. THE TREE LOCATION IS THE CENTER OF THE TREE. THIS LOCATION MAY BE DIFFERENT IF LOCATED FROM A DIFFERENT DIRECTION. ALL TREE LOCATIONS SHOULD BE FIELD CHECKED IF CRITICAL TO DESIGN.

GENERAL EROSION AND TURBIDITY CONTROL NOTES

- The Site Subcontractor shall be responsible for installation and maintenance of all erosion and turbidity controls and the quality and quantity of offsite or
- wetland discharges. Prior to construction, the Site Subcontractor is responsible for having hi dewatering plan and turbidity control plan approved by the applicable reviewina agencies. Refer to the project's permit approvals and permit conditions for agencies requiring such review and approval. Questions concerning appropriate techniques should be addressed to those agencies and/or discussed with the project engineer and owner.
- The appropriate turbidity and erosion control methodologies selected by the Site Subcontractor for this project should be made following assessment of the plans and project site specific factors and after consultations as needed with the project engineer and appropriate agencies. The Site Subcontractor will be responsible for obtaining any and all necessary permits for such activity. At the onset of construction, the Site Subcontractor, as the party responsible
- for implementation of the erosion and sediment control plan, shall assess the above described conditions and factors with respect to relative cos effectiveness and select the appropriate methods of protection. A fairly extensive list of techniques are presented below but it must be stressed that any or all of the following may be necessary to maintain water quality and quantity standards. The construction sequencing should be thought out advance of initiation to provide adequate protection of water quality.
- Discharges which exceed 29 N.T.U.'s over the background levels are i violation of state water quality standards. Discharges of water quantities which affect offsite properties or may damage wetlands are also prohibited by
- The erosion and turbidity control measures shown hereon are the minimum required for agency approval. Additional control and measures may be required due to the Site Subcontractor's construction sequence & unforeseen weather conditions. Any additional measures deemed necessary by the Site Subcontractor shall be included in the lump sum bid with no extras for materials and labor allowed.
- Hay bales or silt screens shall be installed prior to land clearing to protect water quality and to identify areas to be protected from clearing activities and maintained for the duration of the project until all soil is stabilized Floating turbidity barriers shall be in place in flowing systems or in open water lake edges prior to initiation of earthwork and maintained for the
- No clay material shall be left exposed in any stormwater storage facility. clay or sandy-clays are encountered during stormwater storage excavation, the Site Subcontractor shall notify the Engineer immediately before proceeding with further excavation. If the Engineer of Record has determined that such soils are non-confining and must be excavated to meet permit and design conditions, excavation may proceed after obtaining written authorization from the appropriate governing agency. If said soils are left exposed at the permitted and designed depth, the Site Subcontractor shall over-excavate the pond's bottom and side slopes by a minimum of twelve (12") inches and backfill with clean sands to help prevent suspension of fine particles in the

duration of the project until all soil is stabilized.

- water column. The installation of temporary erosion control barriers shall be coordinated with the construction of the permanent erosion control features to the extent necessary to assure effective and continuous control of erosion and water pollution throughout the life of the construction phase.
- The type of erosion control barriers used shall be governed by the nature of the construction operation and soil type that will be exposed. Silty and clayey material may require solid sediment barriers to prevent turbid water discharge, while sandy material may need only silt screens or hay bales to prevent erosion. Floating turbidity curtains should generally be used in open water situations. Diversion ditches or swales may be required to prevent turbid stormwater runoff from being discharged to wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches, and other erosion/turbidity control measures if conditions warrant.
- . Where pumps are to be used to remove turbid waters from construction areas, the water shall be treated prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate upland vegetated areas (other than upland preservation areas and wetland buffers), sediment basins, or confined by an appropriate enclosure such as turbidity barriers or low berms, and kept confined until turbidity levels meet State Water Quality Standards.
- The Permittee shall schedule his operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operation, and the duration of exposed uncompleted construction to the elements shall be as short as practicable. Clearing and grubbing shall be so scheduled and performed such that grading operations can follow immediately thereafter. Grading operations shall be so scheduled and performed that permanent erosion control features can follow immediately thereafter if conditions on the project permit.
- . Water derived from various dewatering methods should be passed through sufficiently wide areas of existing upland vegetation to filter out excess turbidity. If this is not sufficient, the water shall be retained in previously constructed permanent stormwater ponds or else retained in temporary sedimentation basins until the clarity is suitable to allow for its discharge. Plugging the outfalls from completed stormwater ponds may be needed avoid discharge. However, such situations should be monitored closely to preclude berm failure if water levels rise too high.
- Water can be transported around the site by the use of internal swales or b pumps and pipes. Sheet flow of newly filled or scraped areas may be controlled or contained the use of brush barriers, diversion swales, interceptor ditches or low berms.

Flow should be directed toward areas where sediments can sufficiently settle

- . Exposed soils shall be stabilized as soon as possible, especially slopes leading to wetlands. Stabilization methods include solid sod, seeding and mulching or hydromulching to provide a temporary or permanent grass cover mulch blankets, filter fabrics, etc., can be employed to provide vegetative cover.
- 3. Energy dissipaters (such as rip rap, a gravel bed, hay bales, etc.) shall be installed at the discharge point of pipes or swales if scouring is observed. . Attempt to install roadway curb and gutters as soon as possible to reduce the surface area for erosion to occur.
- . Implement storm drain inlet protection (hay bales or gravel) to limi sedimentation within the stormwater system. Perform inspections and periodic cleaning of sediments which wash out into the streets until all soil is stabilized. . Water discharge velocities from impounded areas and temporary sedimentation basins shall be restricted to avoid scouring in receiving areas.
- . If water clarity does not reduce to state standards rapidly enough in holding ponds, it may be possible to use chemical agents such as alum to flocculate or coagulate the sediment particles. . Hay bales, silt screens, or gravel beds can be added around the pipe o
- swale discharge points to help clarify discharges. Spreader swales may help dissipate cloudy water prior to contact with wetlands. 4. All fuel storage areas or other hazardous storage areas shall conform accepted state or federal criteria for such containment areas.
- 5. Vehicle or equipment washdown areas will be sufficiently removed from wetlands or offsite areas. 6. Fugitive dust controls (primarily by using water spray trucks) shall be employed as needed to control windborn emissions.
- 7. If the above controls remain ineffective in precluding release of turbid water, especially during pond or utility line dewatering, then the contractor may be compelled to use a vertical dewatering system such as well points or sock drains to withdraw groundwater which may already be clear enough to allow for
- direct discharge to wetlands. 8. Ongoing inspections and periodic maintenance by the CONTRACTOR/SUBCONTRACTOR shall occur throughout construction as necessary to insure the above methods are working suitably. This may be needed daily, if conditions so warrant.
- 29. The contractor will perform daily inspections of all on—site wetlands within the construction area to ensure that water levels within those wetlands are not excessively impounded prior to the time when the permitted control structure or outfall is built. Water levels significantly above normal should be corrected at a frequency that prevents a change in the vegetative character or health of any wetlands.

STREET & DRAINAGE CONSTRUCTION NOTES:

- Grass and mulch, or solid sod, all areas in existing rights— of—way disturbed by construction. Contractor is to coordinate all work within, but not limited to adjacent
- lines and making of adjustments to same, if required. curb in the vicinity of the respective inlet for alignment and grade, and the prevent vegetation from clogging them. Contractor shall construct the inlet allowing for a concrete throat between the back of the curb and the face of the inlet. Any inlets constructed incorrectly | Wetland plants, if intentionally installed, should be monitored and maintained as
- allowed for removing and/or correcting the inlets. Fill obtained through excavation of detention pond shall be placed on site and adjacent land in accordance with the Drainage and Grading Plan as directed by the Engineer.
- Sod/Seed & Mulch shall be placed in accordance with applicable City/County standards as well as in accordance with standard and specific conditions in re—dug to the original design specifications, if silted in the SWFWMD permit, if applicable. At a minimum this shall include sodding o all pond embankments of a slope 5:1 or greater to the NW line, as well as | For percolation treatment ponds/swales, the owner of the facility shall inspect the seeding and mulching of the balance of the pond tracts (including pond | pond bottom periodically after heavy rainfall events to check for persistent ponding berms, excluding the area below NW), sodding at a minimum of 2' from the back of curb, and seeding and mulching of any project area with a slope of
- 5:1 or steeper. Building downspouts to be directed to the on-site storm drainage system. Future expansion areas, if disturbed to be grassed and mulched or sodded to prevent erosion to existing pavement surfaces. Site clearing shall be performed per the approved construction plans and in
- the required barricading and erosion control shall be the responsibility of the notes should always be kept which describe maintenance activities undertaken site development Contractor unless otherwise designated. Prior to beginning construction, Contractor shall expose all existing utility and adequacy of these inverts.

WATER AND SEWER CONSTRUCTION NOTES:

- Prior to construction, the Contractor shall obtain from the Engineer or Owner a copy of all pertinent permits related to this project. It is the Contractor's responsibility to assure that all construction activities are in compliance with the conditions of all permits and approvals.
- All construction, materials and workmanship are to be in accordance with CITY OF TAMPA Water and Wastewater Technical Manual, latest edition, unless otherwise noted herein.
- Sod all areas in existing rights—of—way disturbed by construction.
- Contractor is to coordinate all work within, but not limited to, City of Tampa rights—of—way with utility companies in order to prevent damage to utility lines and the making of adjustments to same, if required.
- Contractor shall contact the engineer and/or the owner prior to construction that may damage trees.
- Contractor shall verify locations and depths of existing water and sewer lines prior to beginning construction
- and/or utility permits. 8. The existing underground utility lines shown hereon were taken from documents furnished by others and not field verified, therefore, the engineer

Contractor shall be responsible for obtaining any and all road crossing

- cannot guarantee the accuracy of same nor that all are shown. The contractor shall expose all underground utility lines in coordination with the owners to his satisfaction and make adjustments to same in the event there are conflicts with new construction. Adjusting manhole tops to match grade and slope of the finish paving shall
- be included in the respective contract unit price for manholes, payment of CONSTRUCTION SITE WORK TESTING which will constitute full compensation for the construction and completion of the manhole, and no additional payment will be allowed or made for 1. adjusting manhole tops.
- 10. The locations and elevation of all service lines are to be determined in the field by owner and/or contractor prior to construction of same.
- 11. All 6" sanitary sewer pipe shall be constructed at a 1.0% minimum slope. 12. All 4" sanitary sewer pipe shall be constructed at a 1.2% minimum slope.
- 13. All PVC pressure pipe shall have a minimum 36" cover.
- 14. All PVC water main pressure pipe shall conform to the requirements found in AWWA Standard C-900. latest edition at the time of plan approval. All fittings and required appurtenances shall meet the requirements of the CITY OF TAMPA Water and Wastewater Technical Manual, latest edition, unless otherwise noted herein
- 15. All water main pipe and fittings installed under this project shall be color coded or marked in accordance with subparagraph 62-555.320(21)(b)3, Florida Administrative Codes, using blue as the predominant color.
- 16. Sanitary sewers, force mains and storm sewers should cross under water mains. Sanitary sewers, force mains and storm sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the invert of the upper pipe and the crown of the lower pipe whenever
- 17. When sanitary sewers, force mains and storm sewers must cross a water main with less than 18 inches vertical distance, both the sewer and the water main shall be constructed of ductile iron pipe (DIP) at the crossing. (DIP is not required for storm sewers if it is not available in the size proposed.) Sufficient lengths of DIP must be used to provide a minimum separation of 10 feet between any two joints. All joints on the water main within 20 feet of the crossing must be leak free and mechanically restrained. A minimum vertical clearance of 6 inches must be maintained at the
- Where there is no alternative to sewer pipes crossing over a water main, the criteria for minimum separation of 18 inches between lines and 10 feet between joints shall be required.
- 19. All crossings shall be arranged so that the sewer pipe joints and the water main pipe joints are equidistant from the point of crossing (pipes centered on the crossing).
- 20. Where a new pipe conflicts with an existing pipe, the new pipe shall be constructed of DIP and the crossing shall be arranged to meet the requirements above
- 21. A minimum 10-foot horizontal separation shall be maintained between any
- 22. In cases where it is not possible to maintain a 10-foot horizontal separation between any type of parallel sewer and water main, the water main must be laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer or force main at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.
- 23. Where it is not possible to maintain a vertical distance of 18 inches or a horizontal distance of 10 feet in parallel installations, the water main shall be constructed of DIP and the sewer or the force main shall be constructed of DIP (if available in the size proposed) with a minimum vertical distance of 6 inches. The water main should always be above the sewer. Joints on the water main shall be located as far apart as possible from joints on the sewer or force main (staggered joints).
- 24. All DIP shall be class 50 or higher. Adequate protective measures against corrosion shall be used.
- 25. Bends shall be installed in force main and/or water main to avoid unforeseen conflicts in existing or proposed structures. Thrust blocking may be used in lieu of joint restraint as approved by the Engineer of Record.
- 26. The joint deflection method shall be used where practical in lieu of installing 27. Fire hydrant, gate valve and blow-off valve assemblies shall consist of all
- complete, working unit. 28. The location of new fire hydrants shall be identified with a blue reflective pavement marker installed on the roadway. The reflective marker shall be located perpendicular to the hydrant, in the center of the lane closest to the

pipe, valves, tees, fittings, and any and all other appurtenances comprising a

- 29. All valve box assemblies located within roadways or parking areas shall be protected from truck traffic by use of 6" thick reinforced concrete pads poured around valve boxes (see detail).
- 30. All subsurface construction shall comply with the "Trench Safety Act." The Contractor shall insure that the method of trench protection and construction is in compliance with the Occupational Safety and Health Administration (OSHA) regulations.

DWNER'S INSTRUCTIONS FOR MAINTENANCE AND INSPECTION OF STORMWATER

The entire stormwater system should be inspected on at least a semi-annual basis. This should include a visual inspection of the pond, pond banks, rights—of—way with utility companies in order to prevent damage to utility | bleed—down orifices, other control structures, and discharge pipes. These should be kept free of debris and cleaned on a frequency as required to keep them Prior to curb inlet construction, the Engineer shall lay out the back of the | functional, as designed. Mowing/clearing around the structures may be required to

by deviating from this sequence of inlet construction shall be the sole | required on the approved construction plans. Areas of littoral shelving, which are responsibility of the Contractor and no additional payment shall be made or required to be vegetated but not intentionally planted, should not be cleared of the wetland plants. These areas should have as high a plant coverage as possible, for maximum water filtration.

> Sediment sumps, if designed and installed, should have sediment removed as necessary to allow them to efficiently remove suspended particles. They should be

scarify the surface. If required, the soil in the area of ponding shall be removed and replaced with clean sandy, non-cohesive soils Please check the construction plans to see if written reports on monitoring or accordance with City of Tampa Ordinances. Installation and maintenance of plant survival rates are required to be sent to any reviewing agencies. Written

lf prolonged ponding persists, i.e., in excess of 72 hours, the owner shall rake or

or pooling of water. All large debris shall be removed and disposed of elsewhere.

during each inspection. inverts to which a tie—in is proposed and have Engineer verify the elevation | Specific conditions of all permits may require additional maintenance activities above and beyond those outlined above. Please be aware of all permit conditions as issued by regulatory agencies to ensure permit compliance.

TREE PROTECTION AND TREE REMOVAL Trees to be protected and/or removed are to be determined during construction plan submittal.

- All trees to remain, where indicated on the returned site plan, must be protected by tree protection barricades meeting the minimum standards shown. Protective barricades shall remain in place until land alteration and construction activities are completed. Pruning of a Grand Oak, with the exception of minor pruning, is prohibited unless conducted in accordance with the ANSI—A—300 Pruning Standards, and performed
- by an Arborist certified by the International Society of Arborists (ASCA). A notarized affidavit affirming an ISA Certified Arborist or an ASCA Registered Consulting Arborist will conduct or provide onsite supervision of the pruning shall be submitted to the County prior to the pruning of a Grand Oak. An ISA Certified Arborist or an ASCA Registered Consulting Arborist contracted by a property owner to prune a Grand Oak shall assume full responsibility for all pruning activities determined in non—compliance with standards specified within the Land Development

During land alteration and construction activities, it shall be unlawful to remove vegetation by grubbing or to place soil deposits, debris, solvents, construction

- material, machinery or other equipment of any kind within the dripline of a tree to remain on the site unless otherwise approved by the County. In order to minimize soil erosion, proposed land alteration activities shall not unnecessarily remove existing vegetation and alter existing topography. Adequate protection measures (i.e., hay bales, baffles, sodding and sandbagging) shall be provided, as necessary, to minimize erosion and downstream sedimentation caused
- by surface water runoff on exposed land surfaces All tree roots existing within proposed improvement areas and originating from a protected tree shall be severed clean at the limits of the preserved area as
- All trimming undertaken on a tree to be retained according to the permitted construction plans shall be pruned in accordance with the National Arborist Association (NAA) standards. Failure to conform to these pruning standards may result in a delay in issuance of the Certificate of Occupancy (C/O).

identified on the approved construction plans. Utilization of root pruning equipment producing a clean, non-tattered cut is required.

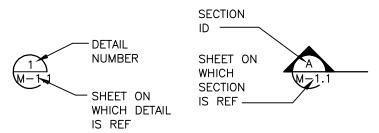
Minor Pruning: Minor Pruning is the pruning of a tree by the removing branches measured no greater than three inches in diameter at the point of connection to a supporting branch and shall be in accordance to the American National Standards

The Contractor is responsible for coordinating applicable testina with the soils engineer. Tests will be required pursuant with the table below. Upon completion of the work, soils Engineer will submit certifications to the Owner's Engineer stating that all requirements have been met.

A qualified testing laboratory shall perform all testing necessary to assure compliance of the in place materials as required by these plans and the various agencies. Should any retesting be required due to the failure of any tests to meet the requirements, the Contractor will bear all cost of said retesting.

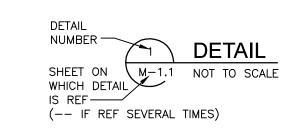
ITEM	TEST	TEST FREQUENCY
	Optimum moisture/maximum density	Per soil type
Embankment	100% of maximum density as determined by AASHTO T, Method C	One per 500 ft
Utility Trench Backfill	Optimum moisture/maximum density	Per soil type
and Around Structures	100% of maximum density as determined by AASHTO T, Method C	One per 500 ft
	Optimum moisture/maximum density	Per material type
Stabilized Subgrade	98% of maximum density as determined by FM 1—T 180, Method D.	One per 500 ft
	LBR	One per 1000 ft
	Optimum moisture/maximum density	Per material type
Base	98% of maximum density as determined by FM 1—T 180, Method D.	One per 500 ft
	LBR	Per source
	Aggregate Analysis	One per design
	Design Mix	One per type
	Gradation Stability Flow	One per day
Asphaltic Concrete	Properties of in place materials (Marshal)	One per day
Aspiratic Concrete	Thickness	One per 500 ft
		or 1 per street
	95% of Lab	One per 500 ft
	Density	or 1 per street

TYPICAL SECTION & DETAIL NUMBERING SYSTEM



— FM— FM— EXISTING FORCE MAIN

STANDARD DESIGN INDEX 001 SHEETS 1 AND 2.

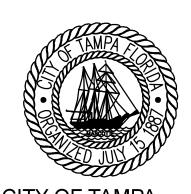


SECTION SHEET ON WHICH SECTION IS CUT-

LECEND & SYMBOLOCY

		LEG	END &	SYMBOL	. O G Y		
	EXIS	TING			FIN	ISHED	
DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
BUSH	\odot	GUY WIRE ANCHOR	>				
HEDGE	00 <u>0</u> 00				TOPSOIL	<u> </u>	SPOT ELEVATION
PALM TREE	\mathcal{X}	MAIL BOX FOUND IRON PIPE	<u></u> ⊚		101 0012		
PINE TREE		FOUND IRON ROD	•		ACODECATE	/-MEG	MATCH EXISTING GRADE
		FOUND PK NAIL & DISK	<u> </u>		AGGREGATE OR	•	
OAK TREE	(•)	FOUND CONCRETE MONU	IMENT •		RIP RAP	~~~	FLOW ARROW
SPRINKLER CONTROL VALVE	S ICV ⊠	SET X-CUT SCRIBE	*				
YARD DRAIN	₩	AIR RELEASE VALVE BOLLARD	⊗	A A 44	CONCRETE	(C)	CLEANOUT
FLAG POLE	P	GRANT INLET		4 4	OONONETE		
MITERED END SECTION		SANITARY SEWER MANHO	OLE SS				SANITARY MANHOLE
CURB INLET		STORM SEWER MANHOLE			ASPHALT		
COLUMN	+70'00	ELECTRIC METER	EM			— ⟨ OR (○	MITERED END SECTIO
GRADE ELEVATION		TRAFFIC SIGNAL CONTROL				0.08	J
RECLAIMED WATER PAINT MARK WATER PAINT MARK	RPM × WPM ×				COMPACTED FILL	2.0%	GRADE
SANITARY PAINT MARK	SPM ×	ABBREVIATION LEGEND:					
GAS PAINT MARK	GPM ×	(C) = CALCULATED DATA			DITCH BOTTOM INLET	4:1	SLOPE
TELEPHONE PAINT MARK	TPM × FDM	C = CENTERLINE					
FIBER OPTIC PAINT MARK ELECTRIC PAINT MARK	'X' EPM	CLF = CHAIN LINK FENCE CONC = CONCRETE					
CABLE PAINT MARK	× CPM ×	(F) = FIELD DATA					
PULL BOX	^ B	F/T = FENCE-TIE FB = FIELD BOOK			<u>LINETYPE</u>		DESCRIPTION
TELEPHONE SINGLE PULL BOX	TSB	FCIR = FOUND CAPPED IRON	N ROD				CENTERLINE
TELEPHONE PULL BOX	T	FIR = FOUND IRON ROD FLOP = FOUND OPEN ENDED	PIPE	_ · · · _	· · — · · — · · —	- · ·	SWALE
TELEPHONE SINGLE POLE FIBER OPTIC CABLE BOX	TSP FC	FPK&D = FOUND PK NAIL A	AND DISC	<u> </u>	60	- ·	WATER SURFACE MAJOR CONTOUR LINE
GAS METER	G	FRRS = FOUND RAILROAD S (L) = LEGAL DESCRIPTION D			59 <i></i>		MINOR CONTOUR LINE
WATER METER	M	OR = OFFICIAL RECORDS BO	00K				EDGE OF PAVEMENT
BACK FLOW PREVENTER	BFP	(P) = PLAT DATA (SEE DATE PB = PLAT BOOK	TA SOURCE #3)				CURB & GUTTER
DETECTOR CHECK VALVE	8	PF = PLASTIC FENCE					STORM SEWER
DOUBLE DETECTOR CHECK VALV	Æ SS (M)	PG = PAGE R/W = RIGHT-OF-WAY					C/L ROADWAY
WATER MANHOLE FIRE HYDRANT	(MIN)	SÉC = SECTION					·
CABLE TV BOX	CTV	SIR = SET IRON ROD & CAI SPK&D = SET PK NAIL AND			-		SANITARY SEWER
LIGHT POLE	¤	SR = STATE ROAD			WM	— ww—	WATER MAIN
POWER POLE	•	WF = WOOD FENCE			RC RC		RECLAIMED WATER MAIN
<u>LINETYPE</u>		DESCRIPTION			WF WF	<u> </u>	WOOD FENCE
		PROPERTY LINE				-0	TREE-BARRICADE
		RIGHT-OF-WAY (EXISTINE EASEMENT LINE	·			- ·-	ROOT PRUNE
60		WETLAND JURISDICTION WETLAND SETBACK LINE MAJOR CONTOUR LINE		-00-			SILT FENCE
— — — — -		TOP OF BANK OR TOE				•	FLOATING TURBIDITY BARRIER
		EDGE OF PAVEMENT OF EDGE OF DIRT/GRAVEL					DANNEN
ww w	/M	EXISTING WATER MAIN					
		EVICTING FORCE MAIN					

ABBREVIATIONS WITHIN THIS PLAN SET ARE IN ACCORDANCE WITH THE STANDARD ABBREVIATIONS SHOWN IN THE FDOT



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LANDSCAPE CONSULTANT DAVID CONNER & ASSOCIATES

FIRE STATION 19 7910 INTERBAY BLVD.

100 EAST MADISON STREET

DPW FILE NUMBER

TAMPA, FLORIDA

SUITE 200

TAMPA, FL 33602

DPW NUMBER

ISSUE DATE MAY 31, 2013

DRAWN BY

REVISIONS



CONSTRUCTION DOCUMENTS

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> FBPR Certificate of Authorization No.: 26929 5M CIVIL LLC 12315 Wycliff Pl Tampa, FL 33626 (813) 404-8872 www.5mcivil.com

> > JESUS A. MERLY P.E. NO. 58113 FLORIDA PROFESSIONAL ENGINEER

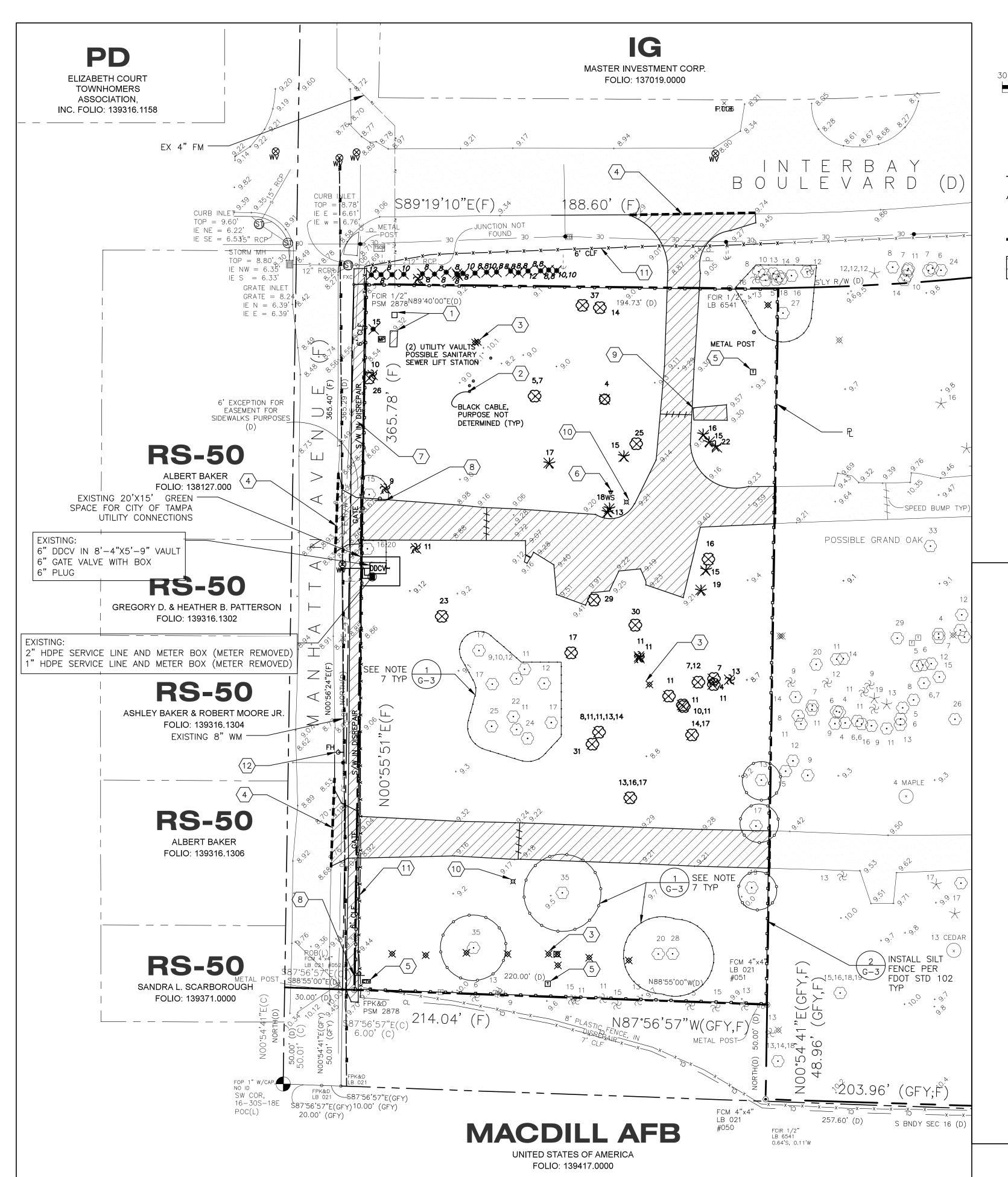
Professional Civil Engineering Services

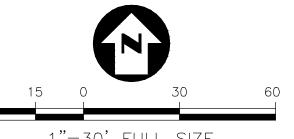
CONSTRUCTION NOTES LEGEND &

SYMBOLOGY

SHEET No:

G-2





1"=30' FULL SIZE 1"=60' 11' X 17'

DEMOLITION LEGEND

KEY NOTE — SILT FENCE TURBIDITY BARRIER

--- SAWCUT LINE

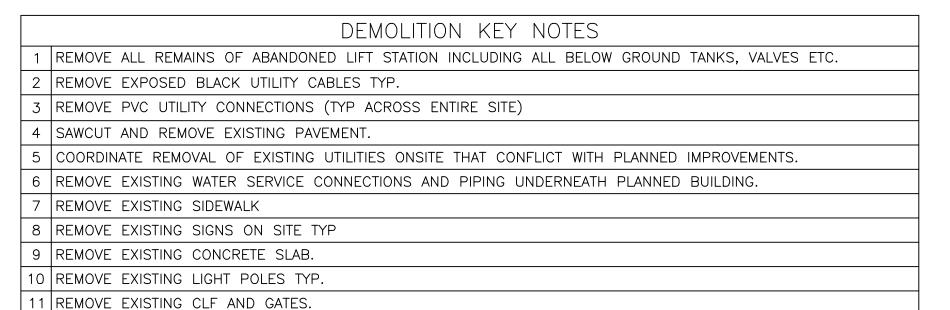
PAVEMENT AND/OR STRUCTURE REMOVAL

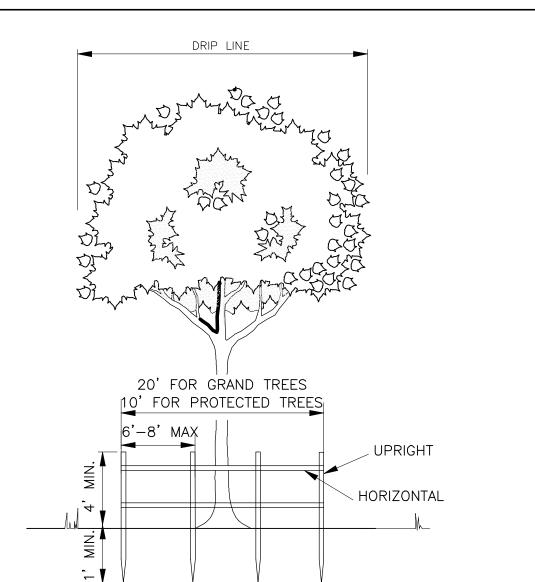
TREE REMOVAL

DEMOLITION NOTES:

12 REMOVE AND RELOCATE FIRE HYDRANT. SEE SHEET C-3.

- 1. SITE CONSISTS OF AN ABANDONED MOBILE HOME PARK. THERE IS THE POTENTIAL FOR EXISTING IMPROVEMENTS THAT ARE NOT SHOWN ON THE SURVEY INCLUDING CONCRETE SLABS, UTILITY CONNECTIONS, ETC. CONTRACTOR SHALL INCLUDE REMOVAL OF ANY IMPROVEMENTS NOT SHOWN ON THE SURVEY AT NO ADDITIONAL COST. CONTRACTOR SHALL PERFORM A SITE VISIT PRIOR TO SUBMITTING A BID TO EVALUATE EXISTING CONDITIONS ON-SITE.
- 2. CONTRACTOR SHALL MAINTAIN SILT FENCING AND TREE BARRICADES IN PROPER FUNCTIONING CONDITION THROUGHOUT CONSTRUCTION.
- 3. INSTALL OFFSITE SOIL TRACKING PREVENTION DEVICE AT CONSTRUCTION ACCESS/INGRESS. SEE DETAIL 2 SHEET G-3.
- 4. ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED BY THE PROVISIONS OF THE LAND DEVELOPMENT CODE SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
- 5. ALL DISTURBED AREAS SHALL BE SODDED.
- 6. CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH FDOT TRAFFIC CONTROL STANDARD INDICES 600, 602 AND 605.
- 7. REFER TO LANDSCAPE DRAWINGS FOR TREE PROTECTION, TREE BRANCH PRUNING AND TREE PRUNING REQUIREMENTS.

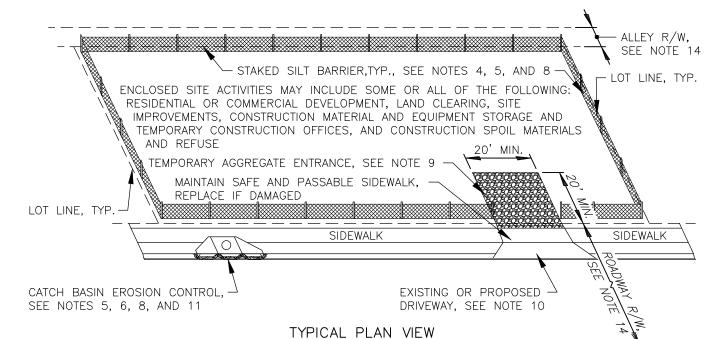




<u>SPECIFICATIONS - WOOD BARRIER</u>

- 1. MINIMUM RADIUS TO BE PROTECTED: A. HARDWOODS - 2/3 DRIPLINE B. CONIFERS & SABAL PALMS - ENTIRE DRIPLINE.
- 2. UPRIGHTS NO LESS THAN 2" X 2" LUMBER.
- 3. HORIZONTALS NO LESS THAN 1" X 4" LUMBER.
- 4. BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED TREES AND PALMS, AND INSPECTED BY CITY REPRESENTATIVE BEFORE CONSTRUCTION BEGINS.

tree barricade detail NOT TO SCALE



- 1. NON-CONFORMANCE WITH THE ITEMS LISTED OR SHOWN ON THIS DETAIL MAY RESULT IN A "STOP WORK"
- 2. THE PURPOSE OF THIS DETAIL IS TO ASSIST THE DEVELOPER, BUILDER, AND/OR CONTRACTOR TO MEET THE MINIMUM REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) 3. THIS DETAIL IS APPLICABLE FOR ALL CONSTRUCTION SITES AS DESCRIBED ABOVE OF LESS THAN ONE (1) ACRE; THOSE SITES GREATER THAN ONE (1) ACRE ALSO MUST OBTAIN COVERAGE UNDER AN NPDES
- 4. THE SILT BARRIER SHALL BE INSTALLED ONE FOOT INSIDE THE PROPERTY LINE OR TWO FEET FROM THE SIDEWALK AS SHOWN ABOVE. FOR SILT BARRIER REQUIREMENTS AND INSTALLATION REQUIREMENTS, SEE STANDARD DETAIL-STAKED SILT BARRIER
- 5. INSPECT AND MAINTAIN ALL EROSION CONTROL DEVICES DAILY AND/OR AFTER A RAINFALL. . FOR CATCH BASIN FILTER REQUIREMENTS, SEE FDOT STANDARD INDEX 102.
- 7. EXISTING GRASS VEGETATION SHALL BE MAINTAINED AT A 10 INCH HEIGHT OR LESS 8. ALL SOIL EROSION CONTROL DEVICES MUST REMAIN IN PLACE UNTIL NEW VEGETATION IS ESTABLISHED.
- ALL DISTURBED AREAS SHALL BE SODDED AFTER FINAL GRADING. 9. TEMPORARY AGGREGATE ENTRANCE SHALL BE A MINIMUM 6" THICK OF STANDARD GRADATION SIZE #1 OR #2 RANGE AS PER FDOT SECTION 901, AND SHALL BE COMPACTED. AGGREGATE SHALL BE QUARTZ OR
- RUSHED GRANITE. LIMEROCK, DOLOMITE OR SANDSTONE SHALL NOT BE ACCEPTABLE 10. IF THERE IS NO EXISTING DRIVEWAY OR AN ALTERNATE INGRESS/EGRESS IS TO BE USED DURING CONSTRUCTION, THE METHOD OF ACCESS SHALL CONFORM TO THE "TEMPORARY AGGREGATE ENTRANCE"
- AS DESCRIBED ABOVE. 11. REGULARLY REMOVE COLLECTED SEDIMENT AND DEBRIS FROM THE SILT BARRIERS AND GUTTER FLOW LINE. 12. FOR ALL SAND AND SOIL STOCKPILES DUST/EROSION CONTROL MEASURES SHALL BE IMPLEMENTED. 13. KEEP CONSTRUCTION SITE LITTER/DEBRIS, AND LEAKING CONTAINERS IN ORDERLY CONTAINMENT AREAS.
- 14. SWEEP ENTRANCE AND ADJACENT ROADWAY WEEKLY TO KEEP FREE OF CONSTRUCTION DEBRIS. 15. SWEEP PAVED SURFACES ONLY. DO NOT WASH DOWN UNTIL SITE IS FINISHED. 16. SINGLE FAMILY INFILL LOTS MAY REQUIRE SILT FENCE AS ORDERED OR DIRECTED

SITE DEVELOPMENT AND/OR CONSTRUCTION STAGING

SITE EROSION CONTROL DETAIL



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DAVID CONNER & ASSOCIATES 100 EAST MADISON STREET SUITE 200 TAMPA, FL 33602

FIRE STATION 19 7910 INTERBAY BLVD. TĂMPA, FLORIDA

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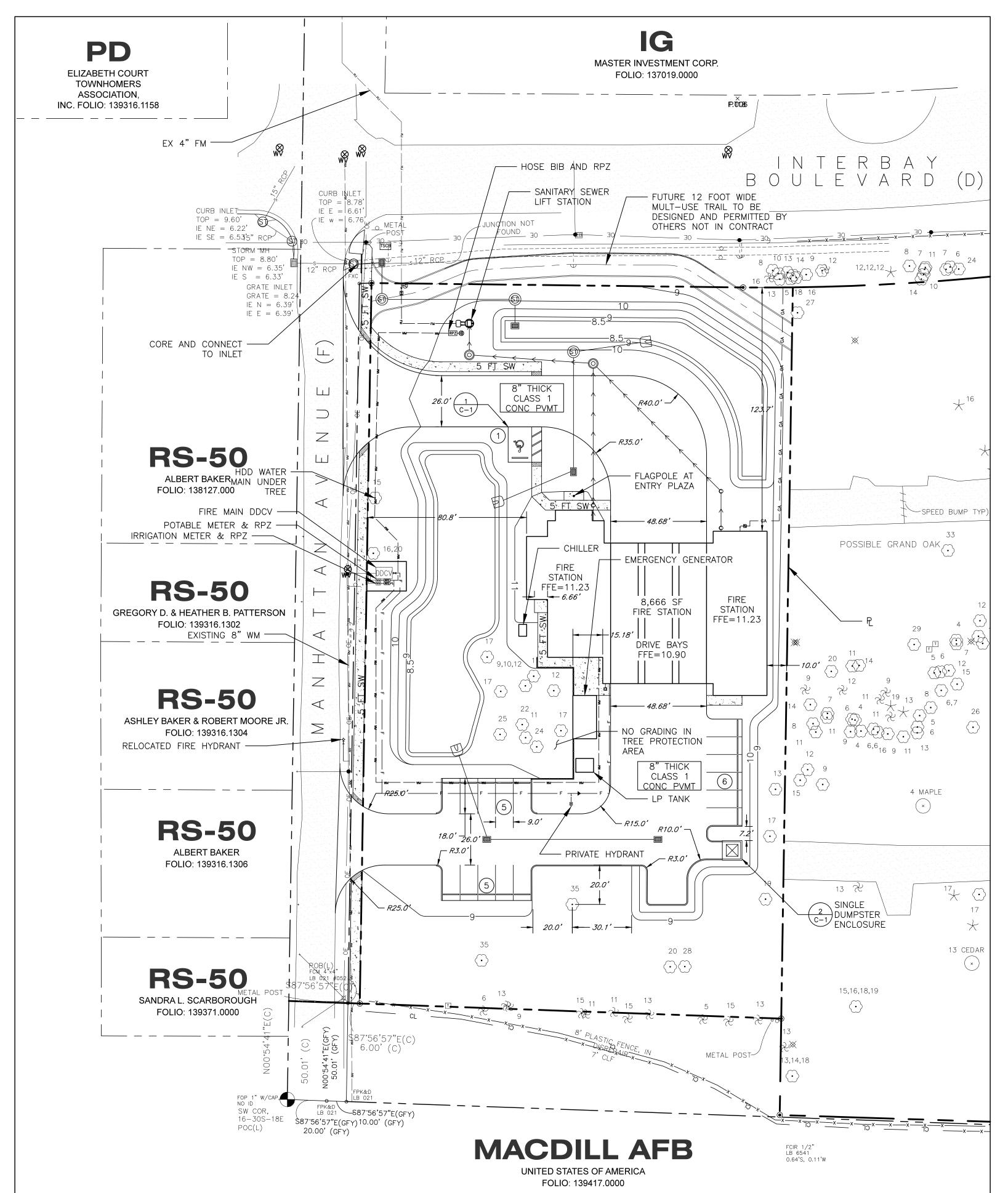
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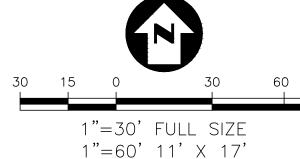
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EXISTING CONDITIONS/ **DEMOLITION PLAN**

SHEET No:

G-3





SITE DATA TABL	.E	
Total Contiguous Area	78,790	sf
Total Contiguous Area	1.81	acres
Proposed Bldg GFA	8,666	sf
Finished Floor Elevation	11.5±	ft NAV
Number of Floors	1	story
Current Building Use		N/A
Proposed Building Use		Station titution)
Number of Units (Residential Use)	· ·	N/A
Density (Residential Use)	1	N/A
Minimum Setback Front	10	ft
Minimum Setback Side	0	ft
Minimum Setback Rear	0	ft
Assumed Property Lines	1	N/A
		l
Parking Required	12	space
Parking Provided	17	space
H/C Parking Required	1	space
H/C Parking Provided	1	space
Existing Site Impervious Area	19,831	sf
Proposed Site Impervious Area		sf
Existing Paved VUA	11,992	sf
Proposed Paved VUA		sf
		Г
Required Mulit—Family/Townhouse Green Space	N/A	sf
Provided Mulit—Family/Townhouse Green Space	N/A	sf
Current Zoning	RN	и—16
Land Use	MULTI	I-FAMILY
Folio Number	1370	37.0000
Floor Area Ratio	1	1.0%
FEMA Panel Number	1205	7C0457H
Potable Water	City c	of Tampo

SITE PLAN NOTES:

Sanitary Sewer

Fire Protection

Stormwater

Solid Waste

1. Fire flow is provided by an existing hydrant west of the site on Manhattan Ave. A private hydrant is also proposed.

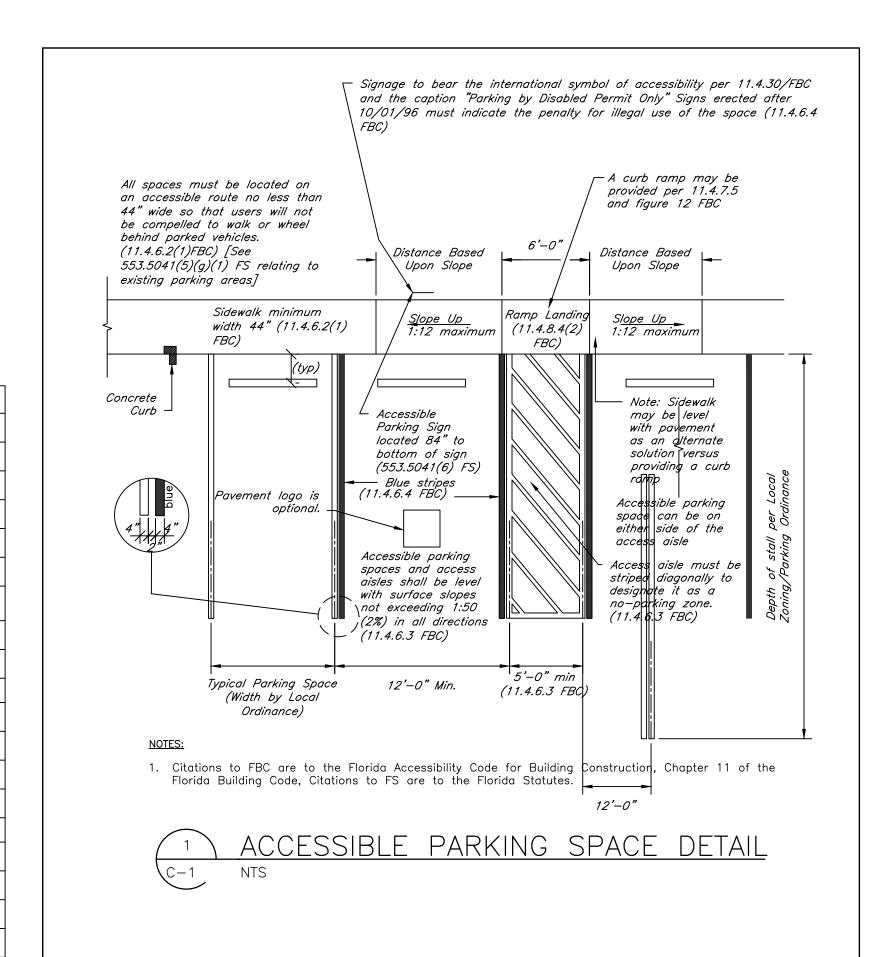
City of Tampa

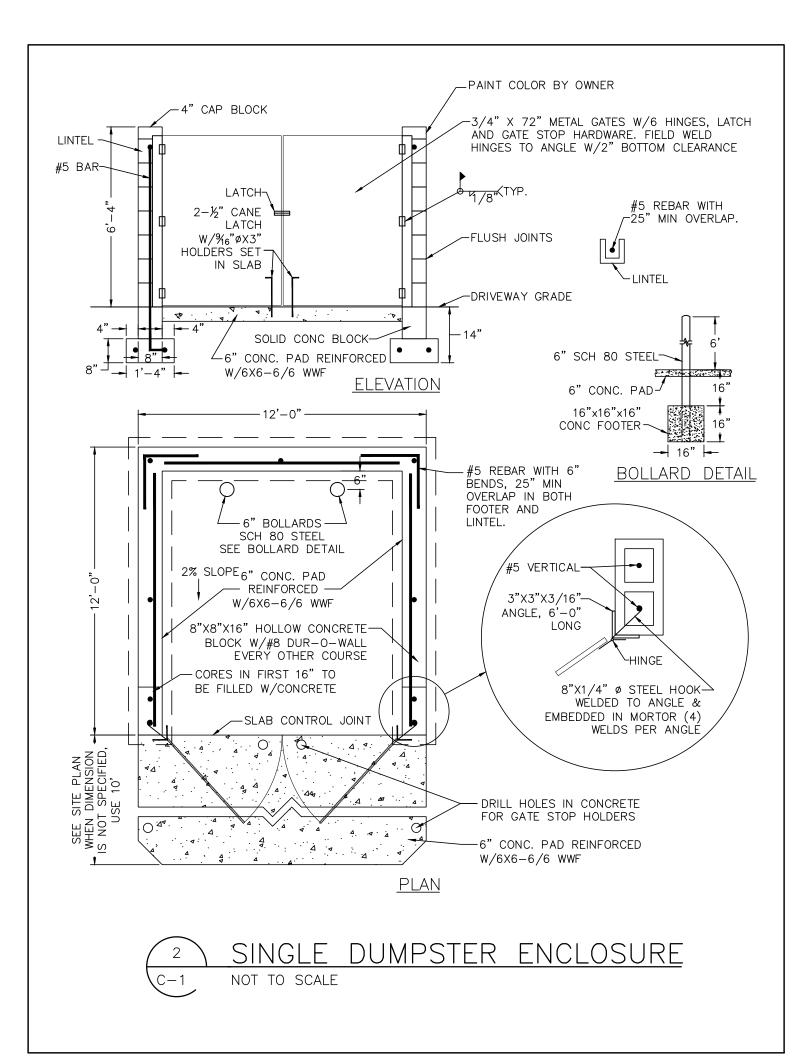
City of Tampa

City of Tampa

City of Tampa

- 2. This is not a phased project.
- 3. There are no wetlands on—site.
- 4. Typical parking space size is 9' by 18'. ADA space size is 12' by 18'. Cross aisle width is 26' minimum.
- 5. The subject property is located in flood zone AE according to Flood Insurance Rate Map Community Panel No. FEMA 12057C0457H bearing an effective date of August 28, 2008. The base flood elevation is 9.0 NAVD.







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CONTRACT ADMINISTRATION
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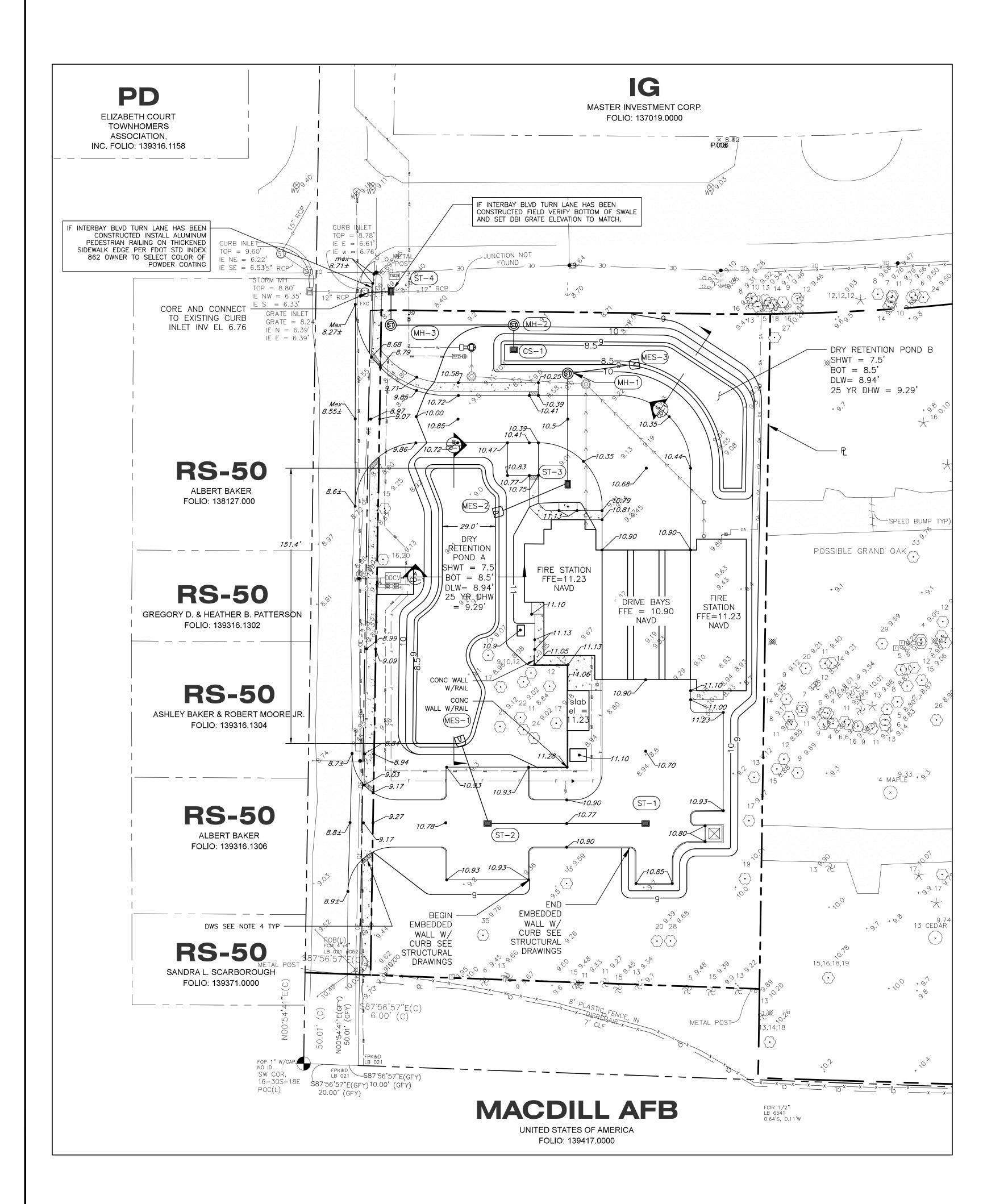
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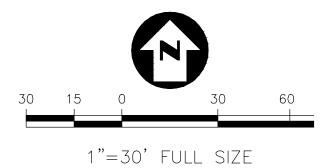
JESUS A. MERLY P.E. NO. 58113 FLORIDA PROFESSIONAL ENGINEER

MASTER SITE PLAN

SHEET No:

C-1





PAVING, GRADING AND DRAINAGE NOTES:

- UNLESS DESIGNATED OTHERWISE ALL SPOT ELEVATIONS REFERENCE FINISHED PVMT ELEVATIONS. BACK OF CURB ELEVATIONS SHALL BE EQUAL TO THE FINISHED PAVEMENT ELEVATION PLUS THE HEIGHT OF THE PLANNED CURB.
- 2. CENTER OF CONCRETE BUMPBER GUARD (WHEEL STOP) SHALL BE SET 30" FROM END OF PARKING STALL.
- 3. UNLESS DESIGNATED OTHERWISE ALL CURB SHOWN SHALL BE TYPE D PER FDOT STD INDEX 300.
- 4. DETECTABLE WARNING SURFACE (DWS) SHALL CONSIST OF RAISED TRUNCATED DOMES IN ACCORDANCE WITH FDOT DESIGN STANDARD INDEX 304. THE DWS SYSTEM SHALL CONSIST OF VANGUARD EPOXY SYSTEM, OR SIMILAR PRODUCT ON THE FDOT QUALIFIED PRODUCT LIST FOR SPECIFICATION SECTION 527. COLOR SHALL BE RED.

	STORM DRAINAGE STRUCTURE SCHEDULE						
STRUCTURE	TYPE	INV (N)	INV (S)	INV (W)	INV (E)	RIM OR GRT EL	DOWNSTREAM PIPE
ST-1	TYPE C DBI FDOT STD INDEX 232			7.70		10.51	12"X18" ERCP
ST-2	TYPE C DBI FDOT STD INDEX 232	7.60			7.60	10.55	12"X18" ERCP
MES-1	MES FDOT STD INDEX 272 SHEET 4 OF 6	7.50					CONST SUMP
MES-2	MES FDOT STD INDEX 272 SHEET 4 OF 6				7.50		CONST SUMP
ST-3	TYPE C DBI FDOT STD INDEX 232	7.70		7.70		10.26	12"X18" ERCP
MH-1	TYPE P-7 MANHOLE FDOT STD INDEX 200 AND 201		7.60		7.50	10.00	12"X18" ERCP
MES-3	MES FDOT STD INDEX 272 SHEET 4 OF 6	7.50			7.50		CONST SUMP
CS-1	CONTROL STRUCTURE	SEE SHEET CD-1					
MH-2	TYPE P-7 MANHOLE FDOT STD INDEX 200 AND 201		7.06	7.06		9.50	12"X18" ERCP
MH-3	TYPE P-7 MANHOLE FDOT STD INDEX 200 AND 201	6.96			6.96	9.00	12"X18" ERCP
ST-4	TYPE C DBI FDOT STD INDEX 232		6.86	6.86		8.0±	12"X18" ERCP

CONCRETE PAVEMENT NOTES AND SPECIFICATIONS

CONVENTIONAL CONCRETE NOTES

GENERAL NOTES

- 1. USE AMERICAN CONCRETE INSTITUTE (ACI) CERTIFIED FLATWORK FINISHER.
- 2. USE ACI 330 GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS.
- 3. USE ACI 330.1 STANDARD SPECIFICATION FOR UNREINFORCED CONCRETE PARKING LOTS.
- 4. ALL CONCRETE USED IN PARKING LOT, UNLESS OTHERWISE INDICATED, SHALL HAVE A COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
- 5. PREPARE THE SUBGRADE IN ACCORDANCE WITH GEOTECHNICAL ENGINEEER'S RECOMMENDATIONS FOR RIGID PAVEMENTS. SUBGRADE SOIL DENSITY TESTING MUST BE COMPLETED AND VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.
- IMPORTED SOIL USE FOR BACK FILL SHOULD BE FREE OF HEAVY CLAY, SILTS, STONES, PLANT ROOT OR OTHER FOREIGN MATERIAL GREATER THAN 17 IN DIAMETER IN ORDER TO ACHIEVE ADEQUATE COMPACTION AROUND ANY FIXED OBJECT IN GROUND. ALTERNATE WILL BE TO USE FLOWABLE FILL.
- 7. CURE CONCRETE IMMEDIATELY AFTER FINISHING OPERATION IS COMPLETED BY USING ONE OF THE FOLLOWING METHODS: WATER, PIGMENTED WATER-BASED CURING COMPOUND OR VISQUEEN AND BURLAP.

COMPACTED SUBGRADE

8. SUBGRADE FOR PAVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR FOR A MINIMUM DEPTH OF 12 INCHES.

SUBBASE

9. PER ACI 330, IMPORTED SUBBASE MATERIAL OR TO CHEMICALLY TREAT THE SUBGRADE MAY BE USED TO IMPROVE THE CONTRACTOR'S WORKING PLATFORM OR TO REDUCE SUBGRADE SUSCEPTIBILITY TO PUMPING AND EROSION.

JOINT SPACING DETERMINATION

10. KEEP ALL JOINTS CONTINUOUS.

- 11. CONTROL JOINTS SHALL BE FORMED OR SAWED WITHIN 12 HOURS FROM TIME OF PLACEMENT.
- 12. MAXIMUM SPACING IS 15 FEET.

- 13. ALL CURBING SHALL BE CONSTRUCTED OF CONCRETE THAT WILL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS
- 14. ALL CONCRETE CURBS SHALL BE SPACED WITH A FULL—DEPTH, ½" WIDTH ISOLATION JOINT MATERIAL PRIOR TO PLACEMENT OF ADJACENT CONCRETE PAVEMENT
- 15. THERE SHALL BE CONTROL JOINTS, EITHER TOOL OR SAW-CUT, MATCH PAVEMENT JOINTS, UNLESS OTHERWISE SPECIFIED; JOINTS SHALL BE FORMED WITHIN 12 HOURS OF PLACEMENT.
- 16. ALL CURB ENDS THAT DO NOT TIE INTO OTHER FACILITIES SHALL TRANSITION DOWN TO PAVEMENT GRADE IN 24 INCHES.
- 17. CONSTRUCTION JOINT SHALL BE TIED WITH A No.4 TIE BAR EXTENDED 6 INCHES INTO EACH CURB SECTION AND SHALL BE SPACED WITH A FULL-DEPTH 1" WIDTH ISOLATION JOINT MATERIAL.



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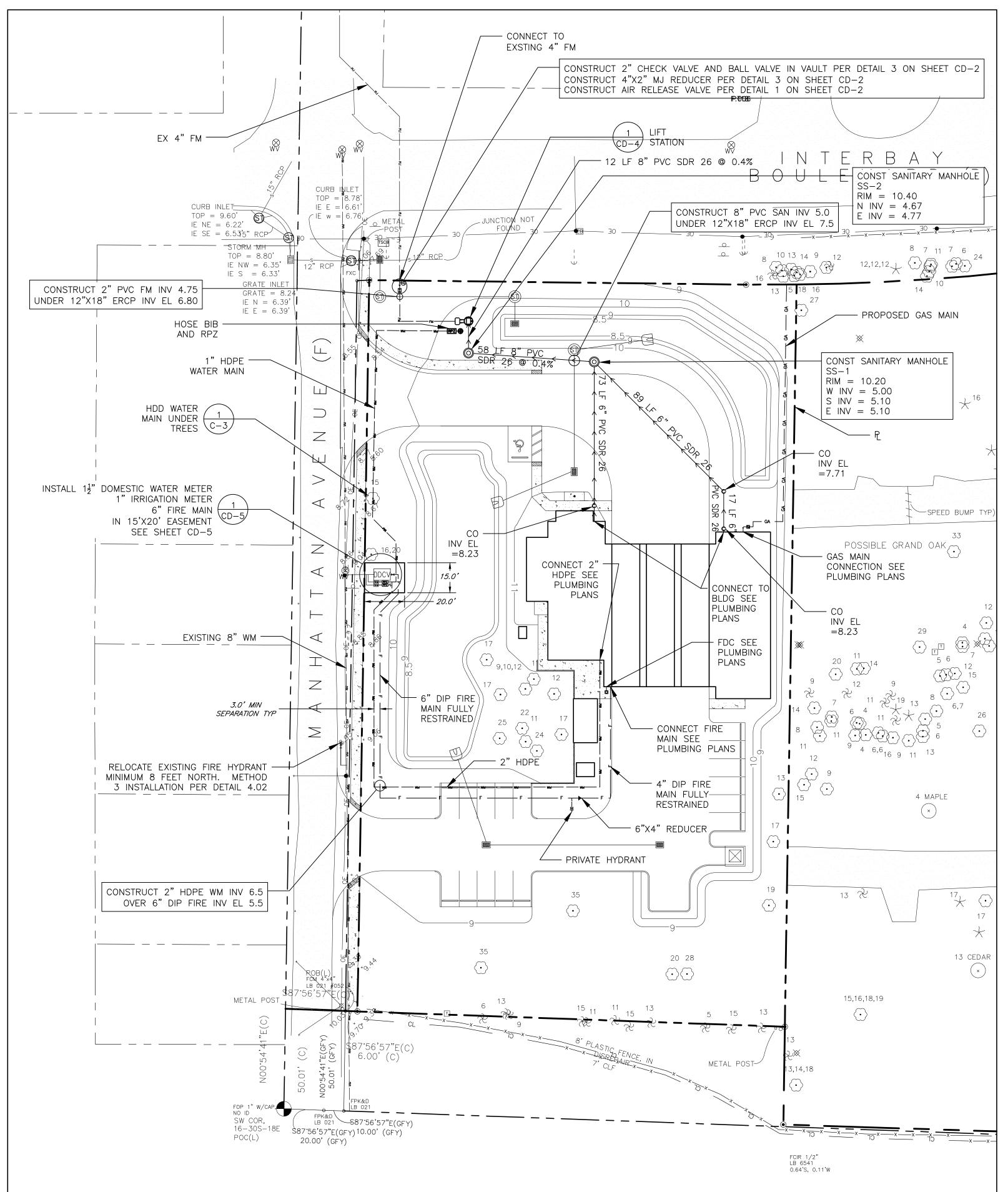
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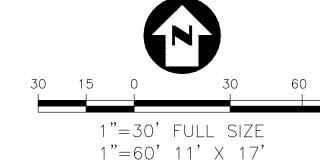
JESUS A. MERLY P.E. NO. 58113 FLORIDA PROFESSIONAL ENGINEER

PAVING, GRADING AND DRAINAGE PLAN

SHEET No:

C-2





WATER NOTES

- 1. ALL WATER SYSTEM WORK SHALL CONFORM WITH THE CITY OF TAMPA "TAMPA WATER DEPARTMENT TECHNICAL MANUAL" DATED MAY 2002.
- 2. ALL SANITARY SEWER WORK SHALL CONFORM WITH APPLICABLE AGENCY STANDARDS AND SPECIFICATIONS, LATEST EDITION THEREOF.
- 3. WATER SERVICE LINE SHALL BE HDPE IN ACCORDANCE WITH THE CITY OF TAMPA TAMPA WATER DEPARTMENT TECHNICAL MANUAL MATERIAL SPECIFICATIONS FOR HIGH DENSITY POLYETHYLENE TUBING.
- 4. HDPE SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER.
- 5. FOR PARALLEL AND CROSSING REQUIREMENTS SEE NOTES ON SHEET G-2.
- 6. CONTRACTOR SHALL VERIFY EXISTING WATER MAIN MATERIAL PRIOR TO PURCHASING TAPPING MATERIALS.

FIXTURE TABLE						
FIXTURE	RE QTY FIXTURE VALUE (35 PSI)					
BATHTUB	4	6	24.0			
KITCHEN SINK	1	1.6	1.6			
OTHER SINK	2	3	6.0			
URINAL WALL FLUSH VALVE	2	12	24.0			
SHOWER	5	1.8	9.0			
WATER CLOSET-TANK	5	3	15.0			
DISHWASHER	1	1.5	1.5			
WASHING MACHINE	1	4	4.0			
HOSE CONNECTION	5	6	30.0			
LAVATORY	5	1.1	5.5			
COMBINED FIXTURE VALUE	120.6					
REQUIRED METER			1 1/2"			

CITY OF TAMPA STANDARD WASTEWATER SERVICE NOTES:

- A. AT LEAST 3 WEEKS PRIOR TO CONSTRUCTION, THE DEVELOPER'S REPRESENTATIVE SHALL NOTIFY THE RESIDENT ENGINEER AND THE CITY OF TAMPA, DEPARTMENT OF SANITARY SEWERS FIELD ENGINEERING OFFICE (242-5363) AND SUPPLY THEM WITH ALL THE REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE AND OTHER INFORMATION AS REQUIRED. THE FIELD ENGINEERING OFFICE SHOULD ALSO BE CONTACTED 5 DAYS PRIOR TO CONSTRUCTION TO ENSURE AVAILABILITY OF INSPECTION PERSONNEL. ANY WORK PERFORMED PRIOR TO NOTIFYING FIELD ENGINEERING OR WITHOUT A DEPARTMENT INSPECTOR PRESENT MAY BE SUBJECT TO REMOVAL AND REPLACEMENT.
- B. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS AND A PRESSURE TEST ON ALL FORCE MAINS (AS APPLICABLE) IN ACCORDANCE TO CITY OF TAMPA REGULATIONS. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE CITY OF TAMPA DEPARTMENT OF SANITARY SEWERS FOR APPROVAL. THE SCHEDULING. COORDINATION AND NOTIFICATION TO ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
- C. ONE OR MORE OF THE FOLLOWING CERTIFICATES/SHOP DRAWINGS, DEPENDING ON THE TYPE OF CONNECTIONS, WILL BE REQUIRED. THIS SHOULD BE REVIEWED WITH THE DESIGN DIVISION PRIOR TO APPROVAL FOR CONSTRUCTION AND SUBMITTED IN ACCORDANCE WITH THE ABOVE NOTE #1.
- a) DIP/PVC CERTIFICATE OF MANUFACTURE.
- b) MANHOLE SHOP DRAWINGS AND STRENGTH REPORT.
- :) FRAME AND COVER SHOP DRAWINGS.
- d) FLEXIBLE COUPLING SHOP DRAWINGS. e) CASING PIPE CERTIFICATE.
- JACKING PIT DETAIL.
-)) CRUSHED STONE SUBMITTAL.
- h) VALVE SHOP DRAWING.
- MANHOLE DROP CONNECTION DETAIL.
- D. THE CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THE FOLLOWING HAS BEEN
- a) FINAL INSPECTION IN CONJUNCTION WITH DEPARTMENT PERSONNEL COMPLETED.
- b) AS-BUILTS HAVE BEEN SUBMITTED AND ACCEPTED.
- c) ALL NECESSARY TESTING COMPLETED AND CERTIFIED.
- d) PAYMENT OF ALL CAPACITY FEES.
- e) ISSUANCE OF FDEP CERTIFICATION OF COMPLETION APPROVAL (IF APPLICABLE)

SANITARY SEWER DESIGN FLOW CALCULATIONS (per FAC 64E-6.008)							
TYPE OF ESTABLISHMENT	GPD/	UNITS	GPD				
PUUBLIC INSTITUTION	UNIŤ	UNITS	GPD				
(a) per person	100	12	1200	GPD			
(b) add per meal prepared	5	36	180	GPD			
A ¹	1380	GPD					
MAX DAILY FLOW = ADF X 3.0 PEAK FACTOR 4140 GPD							
PEAK HOURLY FLOW = ADF GPE)/24 HR,	/60 MIN =	2.9	GPM			

EXCAVATIONS

When deep soil cuts are made over the entire area occupied by the roots, it is difficult to main train the health of trees. Lowering the grade 6-8 inches will remove a major portion of the top soil and most of the feeder roots. A loss of 1/2 to 1/3

of these surface roots will kill the tree. To preserve the tree and avoid root damage

when cutting a grade, curve or zig-zag around the roots as much as possible. The area of the dripline Water frequently until the tree becomes should be sufficient. Top soil is an extremely important factor in the survival of a tree.

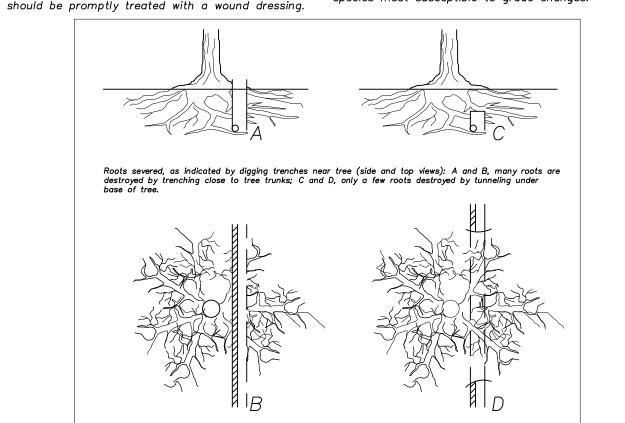
Deep grade changes will require a retaining wall. The wall should be porous to allow for aera tion. Construction is similar to dry well. Top pruning will aid in retaining tree vigor

when roots are cut, and fertilization will stimulate new growth.

established. Severe root damage will reguire 6 months to a year for the tree to fully recover.

Roots should be cut cleanly. Large roots

Oaks, maples, bays, and conifers are among the species most susceptible to grade changes.



Trees can be protected when excavation for water and sewer lines is performed. Start by considering the location of the trenches. If the trenches cannot be routed around the trees and outside the dripline, the next best

thing is to tunnel under them.

for this purpose. Tunneling under the trees has been shown to minimize root kill. Tun neling should be offset to one side of the trunk to prevent damage to the main tap

TREE PROTECTION FOR UTILITY EXCAVATIONS



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