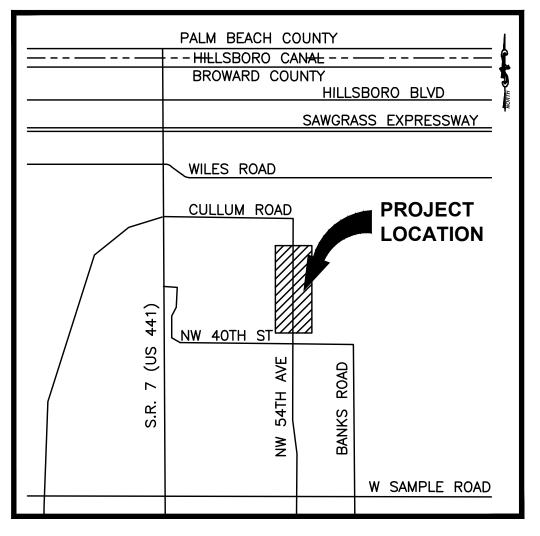
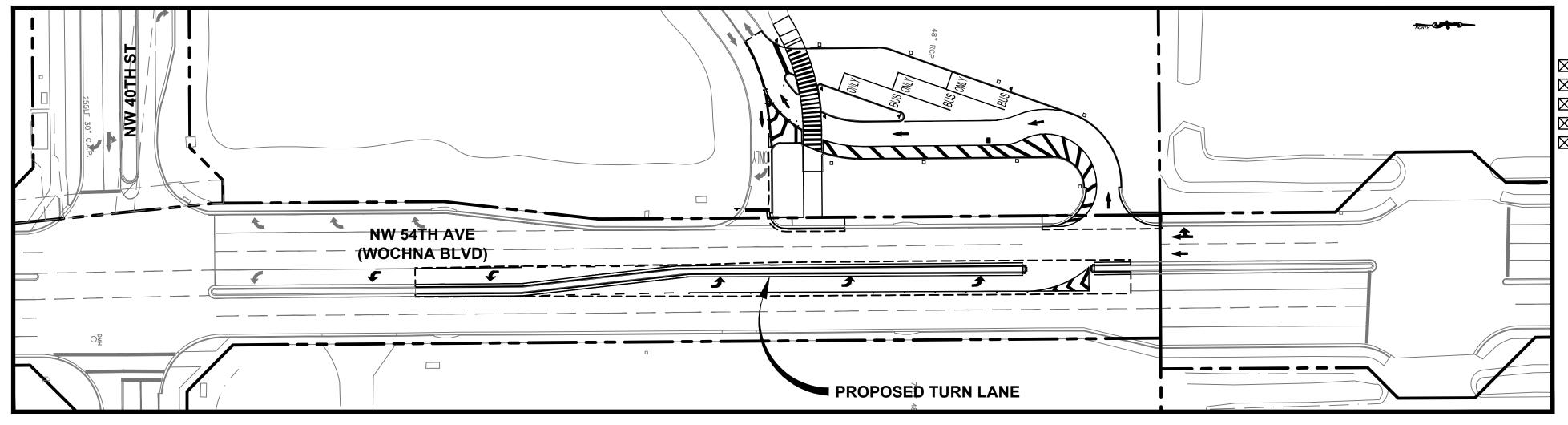
# CONSTRUCTION PLANS FOR

# COMMERCE CENTER OF COCONUT CREEK NW 54th AVE TURN LANE RELOCATION

# CITY OF COCONUT CREEK BROWARD COUNTY, FLORIDA





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VICINITY MAP N.T.S. PROJECT LOCATION MAP

SCALE: 1"=50'

K&S PROJECT NO. 17796.55 DATE: JULY 17, 2013

REVISIONS			
DATE	NO.	DESCRIPTION	
08/19/13	1	STOF OP.'S REVISIONS	

KEITH and SCHNARS, P.A.

ENGINEERS, PLANNERS, SURVEYORS

CERTIFICATE OF AUTHORIZATION #1337

6500 NORTH ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA 33309 (954) 776-1616

THE PUBLIC ROADWAY(S) INDICATED IN THESE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS & HIGHWAYS - STATE OF FLORIDA."

PRODUCED FOR:

SEMINOLE TRIBE OF FLORIDA
ONE SEMINOLE WAY
HOLLYWOOD, FLORIDA 33314

TIM J. HALL, P.E. FLORIDA LIC. NO. 50588 (FOR THE FIRM)

CHEET NA

# GENERAL NOTES

THE LOCATION AND SIZE OF ALL EXISTING UTILITIES AND TOPOGRAPHY HAVE BEEN PREPARED FROM INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ANY EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE

ALL CONSTRUCTION, MATERIALS AND TESTING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL, COUNTY, STATE AND NATIONAL CODES WHERE APPLICABLE.

WHEN ANY OF THE GOVERNING REGULATORY AGENCY'S STANDARDS AND SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT APPLY.

# B. CONSTRUCTION SAFETY ALL CONSTRUCTION SHALL BE DONE IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

- TRENCH SAFETY ACT CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE FLORIDA TRENCH SAFETY ACT.
- ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS UNLESS OTHERWISE NOTED, ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD).
- PRECONSTRUCTION RESPONSIBILITIES A. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL AT 811
- CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
- C. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH HE FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. HE IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.

# A. THE CONTRACTOR SHALL NOTIFY THE OWNER/MUNICIPAL AUTHORITY, THE ENGINEER OF RECORD AND THE COUNTY, IF APPLICABLE, AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS:

- 2. WATER SYSTEM
- 3. SUBGRADE SUBMIT AND HAVE APPROVED DENSITIES PRIOR TO PLACEMENT OF ROCK.
- 4. LIMEROCK BASE SUBMIT AND HAVE APPROVED DENSITIES AND AS-BUILTS PRIOR TO THE PLACEMENT OF ANY ASPHALT
- 5. ASPHALTIC CONCRETE
- 6. FINAL INSPECTION

# IV. SHOP DRAWINGS

PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE OWNER/MUNICIPAL AUTHORITY AND ENGINEER OF RECORD FOR SANITARY MANHOLES, CATCH BASINS, FIRE HYDRANTS, VALVES AND OTHER MECHANICAL/ELECTRICAL EQUIPMENT WITH ASSOCIATED STRUCTURES, INCLUDING ALL DATA. CATALOGUE LITERATURE SHALL BE SUBMITTED FOR WATER AND SEWER PIPES, FITTINGS, AND APPURTENANCES.

PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE THE DRAWINGS, AND SHALL NOTE IN RED ANY DEVIATIONS FROM THE ENGINEERS' PLANS OR SPECIFICATIONS.

NDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.

# TRAFFIC REGULATION

- MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH
- 2. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
- 3. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE ENGINEER, OWNER/MUNICIPAL AUTHORITY AND LOCAL OR COUNTY AUTHORITY.
- 4. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W'S WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.
- 5. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S TO BE ATSSA CERTIFIED.

## VI. PROJECT CLOSEOUT A. CLEANING OUT

- 1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEPT BROOM CLEAN AS DIRECTED BY THE ENGINEER.
- 2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER OR OWNER/MUNICIPAL AUTHORITY, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF HIS SUBCONTRACTORS TO A CONDITION AT I FAST FOUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL DO AS REQUIRED ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK, IRRIGATION AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
- WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED. SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION AS DIRECTED BY THE ENGINEER.
- 4. CONTRACTOR SHALL DISPOSE OF ALL SITE DEMOLITION IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

# PROJECT RECORD DOCUMENTS

- 1. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS
- 2. PRIOR TO THE PLACEMENT OF ANY ASPHALT OR CONCRETE PAVEMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER "AS-BUILT" PLANS SHOWING LIMEROCK BASE GRADES, AND ALL DRAINAGE, WATER, AND SEWER IMPROVEMENTS. PAVING OPERATIONS SHALL NOT COMMENCE UNTIL THE ENGINEER AND THE APPROVING AGENCY HAS REVIEWED THE
- 3. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO THE ENGINEER AND THE OWNER/MUNICIPAL AUTHORITY PRIOR TO PLACING LIMEROCK BASE
- 4. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR LIMEROCK SHALL BE PROVIDED TO THE ENGINEER AND THE OWNER/MUNICIPAL AUTHORITY PRIOR TO PLACING ASPHALT.
- ACCURATE, CLEAR AND LEGIBLE TO THE SATISFACTION OF THE ENGINEER THAT THE
- 6. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD ONE COMPLETE SET OF "AS-BUILT" CONSTRUCTION DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "RECORD DRAWING" OR "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR OR ENGINEER. FINAL AS-BUILT INFORMATION SHALL BE SUBMITTED ON AN AUTOCAD FORMAT AS DIRECTED BY

- VII. STORM DRAINAGE A. CONTRACTOR MAY UTILIZE ONE OF THE FOLLOWING MATERIALS (AS DIRECTED AND APPROVED BY
  - THE OWNER/MUNICIPAL AUTHORITY) ON A SIZE FOR SIZE BASIS:

- a. PIPE SHALL BE ALUMINUM, MANUFACTURED IN CONFORMANCE WITH ASTM B-209. METAL PIPE SHALL NOT BE ALLOWED WITHIN THE ROAD RIGHT-OF-WAY.
- b. PIPE SHALL BE SPIRAL RIB DRAINAGE PIPE WITH 3/4" X 3/4" RIBS, APPROXIMATELY
- 7-1/2" ON CENTER. GAUGE THICKNESS SHALL MEET FDOT STANDARD 945-1.
- d. POLYURETHANE OR OTHER SEALANT SHALL BE USED WITH COUPLING BANDS ON ALL
- a. CONCRETE PIPE FOR STORM SEWERS ON DOT PROJECTS SHALL CONFORM TO FDOT
- b. CONCRETE PIPE FOR STORM SEWERS SHALL CONFORM TO ASTM L76-79, TABLE III
- a. HIGH DENSITY POLYETHYLENE PIPE FOR STORM SEWERS SHALL CONFORM TO FDOT
- a. POLYVINYL-CHLORIDE PIPE FOR STORM SEWERS SHALL CONFORM TO FDOT 948-1.
- B. BEDDING AND INITIAL BACKFILL OVER DRAINAGE PIPE SHALL BE SAND WITH NO ROCK LARGER
- C. BACKFILL MATERIAL UNDER PAVED AREAS SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
- D. BACKFILL MATERIAL UNDER AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
- CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY SILT SCREENERS IN CATCH BASINS AND AT LOCATIONS AS DIRECTED BY THE ENGINEER UNTIL FINAL ACCEPTANCE OCCURS.

- 1. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE LIMEROCK BASE AND PRIOR TO THE PLACEMENT OF THE PAVEMENT.
- 2. ALL STREET CORNER PAVEMENT RADII SHALL BE 35 FEET UNLESS OTHERWISE NOTED ON
- 3. TWO ROWS OF BAHIA SOD SHALL BE LAID ALONG CURB WITHIN TWO WEEKS OR AS DIRECTED BY THE ENGINEER OF INSTALLING FIRST LIFT OF ASPHALT.

- 1. LIMEROCK BASE MATERIAL SHALL HAVE A MINIMUM OF 70% CARBONATES (CALCIUM AND
- 2. SUBGRADE MATERIAL SHALL HAVE A MINIMUM LBR OF 40 AND INSTALLED AT 98% AASHTO
- 3. PRIME COAT AND TACK COAT SHALL MEET FLORIDA DEPARTMENT OF TRANSPORTATION
- 4. SURFACE COURSE AS SHOWN ON PLANS.
- 1. LIMEROCK BASE MATERIAL SHALL BE 8" THICK OR AS SHOWN AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
- 2. LIMEROCK BASE MATERIAL SHALL BE PLACED IN TWO OR MORE EQUAL LIFTS.
- 4. PRIME COAT SHALL BE PLACED ON ALL LIMEROCK BASES IN ACCORDANCE WITH (FDOT)
- ALL SUBGRADE, LIMEROCK AND ASPHALT TESTS REQUIRED SHALL BE TAKEN AT THE
- DIRECTION OF THE ENGINEER AND/OR THE OWNER/MUNICIPAL AUTHORITY. E. PAVERS

- . PAVEMENT MARKINGS SHALL BE THERMOPLASTIC OR PAINT AS REQUIRED BY THE OWNER/MUNICIPAL AUTHORITY.
- C. REFLECTIVE PAVEMENT MARKERS SHALL BE CLASS B MARKERS MANUFACTURED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 706 AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES.

# X. FDEP GENERAL WATER NOTES

- ASSOCIATION (AWWA) STANDARDS.
- B. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NST INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62-555.335, F.A.C., OR OTHER APPLICABLE STANDARDS, REGULATION OR REQUIREMENTS REFERENCED IN PARAGRAPH 62-333.320(3)(b), F.A.C.
- WITH SUBPARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS PREDOMINANT COLOR. INTO OR APPLIED TO THE PIPEWALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES AND APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR
- PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605, RESPECTIVELY, AS INCORPORATED INTO RULE 62-555.330, F.A.C. AND ALL OTHER NEW OR ALTERED WATER MAINS SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-333.330.

# XI. LANDSCAPE NOTES

A. ALL CONSTRUCTION ACTIVITY, INCLUDING TRENCHING, IS TO BE A MINIMUM OF SIX FEET FROM THE BASE OF ANY TREE THAT IS DESIGNATED TO REMAIN. NO DRAINAGE STRUCTURES OR IMPROVEMENTS ARE PERMITTED WITHIN REQUIRED PLANTER AREAS/ISLANDS INCLUDING FIRE

ALL LIMEROCK AND BASE MATERIALS SHALL BE REMOVED FROM THE PLANTER AREAS/ISLANDS AND REPLACED WITH APPROPRIATE PLANTING SOIL PRIOR TO THE LANDSCAPING OF THE SITE. THE REMOVAL OF ANY TREE ON THE SITE IS PROHIBITED WITHOUT THE REQUIRED MUNICIPAL AUTHORITY PERMIT. ANY SITE WORK MUST BE DONE UNDER AN ENVIRONMENTAL PERMIT PER MUNICIPAL AUTHORITY CODE OF ORDINANCES.

# XII. FLORIDA DEPT OF HEALTH COLOR CODING REQUIREMENTS FOR POTABLE WATER MAINS

- A. ALL WATER MAIN PIPE, INCLUDING FITTINGS, INSTALLED ON OR AFTER AUGUST 28, 2003 EXCEPT PIPE INSTALLED UNDER A CONSTRUCTION PERMIT FOR WHICH THE HEALTH DEPARTMENT RECEIVED A COMPLETE APPLICATION BEFORE AUGUST 28, 2003, SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPI SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL: AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN Parallel to the axis of the Pipe, that are located at no greater than 90—degree NTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIP PIPE DURING INSTALLATION OF THE PIPE. HE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPES WITH AN NTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN ABOVEGROUND PIPE AT DRINKING WATER TREATMENT PLANTS SHALL BE COLOR CODED AND LABELED IN ACCORDANCE WITH SUBSECTION 62-555.320(10), F.A.C., AND ALL OTHER ABOVEGROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.
- - COLOR CODING OF PIPING AT DRINKING WATER TREATMENT PLANTS: ALL NEW OR ALTERED, ABOVEGROUND PIPING AT DRINKING WATER TREATMENT PLANTS SHALL BE COLOR CODED AND LABELED AS RECOMMENDED IN SECTION 2.14 OF RECOMMENDED STANDARDS FOR WATER WORKS AS INCORPORATED INTO RULE 62-555.330, F.A.C. DDITION, ALL UNDERGROUND WATER MAIN PIPE THAT IS INSTALLED AT DRINKING WATER TREATMENT PLANTS ON OR AFTER AUGUST 28, 2003, AND THAT IS CONVEYING FINISHED DRINKING WATER SHALL BE COLOR CODED AS REQUIRED UNDER SUBPARAGRAPH 62-555.320(21)(B)3., F.A.C. THIS SUBSECTION DOES NOT APPLY TO DRINKING WATER TREATMENT PLAN PIPING INSTALLED OR ALTERED UNDER A CONSTRUCTION PERMIT FOR WHICH THE DEPARTMENT RECEIVED A COMPLETE APPLICATION BEFORE AUGUST 28,

# XIII. GENERAL NOTES - WATER AND SEWER

- 1. ALL APPLICABLE PERMITS MUST BE OBTAINED AND ALL APPLICABLE FEES AND CHARGES MUST BE PAID PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER/MUNICPAL AUTHORIT ATTENDED BY THE CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 3. THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES ON THE SITE A CURRENT SET OF APPROVED CONSTRUCTION PLANS. THE PLANS SHALL BE MADE AVAILABLE TO THE MUNICIPALITY'S ENGINEER OR HIS DESIGNEE UPON REQUEST.
- THE APPROVED PLANS. APPROVAL OF PLANS BY THE MUNICIPALITY IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. THE OWNER'S ENGINEER SHALL BRING TO THE ATTENTION OF THE MUNICIPALITY'S ENGINEER ANY DISCREPANCY IN, OR VARIATION FROM, THE APPROVED PLANS.

4. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES AND IMPROVEMENTS FROM DAMAGE, DISRUPTION OF SERVICE, OR DESTRUCTION AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.

THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. ANY AND ALL CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE

- 5. THE CONTRACTOR SHALL INFORM THE MUNICIPALITY'S ENGINEER AT LEAST 48 HOURS IN ADVANCE OF COMMENCING CONSTRUCTION AND/OR CONNECTING TO A MUNICIPAL FACILITY.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SCHEDULING OF, AND PAYMENT FOR, SUCH TESTS AS MAY BE DEEMED NECESSARY BY THE OWNER'S ENGINEER OR THE MUNICIPAL ENGINEER, AND AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.
- 7. THE OWNER'S ENGINEER SHALL MAKE SUFFICIENT INSPECTIONS OF THE WORK TO ENABLE HIM TO CERTIFY THE INSTALLATION AS BEING IN CONFORMANCE WITH THE APPLICABLE STANDARDS
- 8. THE OWNER'S REPRESENTATIVE WILL INFORM THE CONTRACTOR WHEN TO BACK FILL THE WORK, AND WILL WITNESS ALL PRESSURE, BACTERIOLOGICAL AND INFILTRATION/EXFILTRATION TESTS.
- SANITARY SEWERS AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS AND FORCE MAINS 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 POSSIBLE. WHERE SANITARY SEWERS OR FORCE MAINS MUST CROSS A WATERMAIN WITH LESS THAN 18

INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP), MIN. CLASS 52 AT THE CROSSING. 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 MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 12 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.

JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE PIPE SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE. 10. A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE AND THE WATER MAIN PIPE

- OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, 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 SLICH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEI INSTALLATIONS. THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL SEPARATION 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).
- 11.NO DEVIATION FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT OF THE MUNICIPAL ENGINEER.
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THESE PLANS WITH ANY PAVING AND
- 13. THE FOLLOWING DOCUMENTS ARE TO BE ON FILE AT THE OFFICE OF THE MUNICIPAL ENGINEER PRIOR TO THE CONNECTION OF THE FIRST WATER METER:
- A. FINAL ENGINEERING PLANS APPROVED BY THE MUNICIPAL'S ENGINEERING DEPARTMENT.
- B. LETTERS OF ACCEPTANCE FROM:
  - 1) COUNTY HEALTH DEPARTMENT

DRAINAGE PLANS IN THIS PROJECT WORK AREA.

- 2) COUNTY DPEP WASTEWATER LICENSING SECTION/FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (FDEP)
- C. COPIES OF BACTERIOLOGICAL REPORTS STAMPED BY THE COUNTY HEALTH DEPT.
- D. CERTIFICATION OF ENGINEER OF RECORD
- E. LETTER FROM OWNER STATING ACTUAL COST OF CONSTRUCTION

- XIII. GENERAL NOTES WATER AND SEWER (CONTINUED)
- F. LETTER FROM OWNER STATING THAT NO LIENS HAVE BEEN FILED RELATING TO
- INSTALLATION OF UTILITIES
- G. BILL OF SALE ABSOLUTE FOR SYSTEM
- I. LETTER FROM OWNER COMMITTING TO RECORDATION OF APPROPRIATE DOCUMENTS

H. GRANT OF EASEMENT OR LETTER STATING THAT EASEMENTS ARE ON THE PLAT

- J. ADDRESS PLAN OF PROJECT
- K. REQUIRED NUMBER OF SIGNED AND SEALED COPIES, AS REQUIRED BY THE ENGINEER OF ASBUILTS CERTIFIED BY A LAND SURVEYOR OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, AND ONE COPY OF AS-BUILTS ON CD-ROM(S) IN AUTOCAD

- L. FINAL INSPECTION VERIFICATION
- M. TEMPORARY METER REMOVAL LETTER
- 14. ALL INSTALLATIONS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE IN CONFORMITY WITH THE COUNTY ENGINEERING DIVISION "MINIMUM STANDARDS".
- 15. ALL INSTALLATIONS AND TESTING OF DUCTILE IRON PIPE SHALL COMPLY WITH ANSI/AWWA C-600-99 (OR CURRENT EDITION).

# 16. COATINGS AND LININGS (DIP):

- A. DUCTILE IRON PIPE AND FITTINGS FOR UNDERGROUND SERVICE SHALL RECEIVE AN EXTERIOR BITUMINOUS COATING OF COAL TAR VARNISH OR ASPHALT BASE PAINT, 1.0-MIL FILM THICKNESS IN ACCORDANCE WITH ANSI/AWWA A21.51/C-151.
- B. EXPOSED DUCTILE IRON PIPE AND FITTINGS FOR SERVICE SHALL RECEIVE A FACTORY APPLIED EXTERIOR COATING OF UNIVERSAL RUST-INHIBITIVE PRIMER, 2.0 MILS DRY FILM
- C. DUCTILE IRON PIPE AND FITTINGS FOR WASTEWATER SERVICE SHALL RECEIVE A FACTORY APPLIED INTERIOR CERAMIC EPOXY COATING WITH A MINIMUM DRY THICKNESS OF 40 MILS N ACCORDANCE WITH ANSI A21.4. PROTECTED 401 OR APPROVED EQUAL.
- D. DUCTILE IRON PIPE AND FITTINGS FOR WATER AND REUSE SERVICE SHALL RECEIVE AN EXTERIOR COATING AS SPECIFIED ABOVE AND SHALL BE CEMENT MORTAR LINED AND BITUMINOUS SEALED IN ACCORDANCE WITH ANSI A21.4.

# 17. WASTEWATER APPLICATIONS:

- FOR GRAVITY SEWER ONLY SDR 26 PVC

- PRESSURE CLASS 350 FOR 4"-24" DIAMETER PIPE

- PRESSURE CLASS 250 FOR 30" OR GREATER DIAMETER PIPE - CLASS 53 FOR FLANGED APPLICATIONS XIV. WATER SYSTEM NOTES

## 1. ALL WATER MAINS LARGER THAN 12" SHALL BE DUCTILE IRON PIPE (DIP). ALL PIPE MATERIAL SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS: <del>PVC</del> NO PVC WATER MAIN ALLOWED

- 4" AND 6" DIA, CLASS 200, DR14 - 8" TO 12" DIA, CLASS 150, DR18 ANSI/AWWA C900-07
- ANSI/AWWA C151/A21.51 02 AND CEMENT MORTAR LINED AND SEALED PER ANSI/AWWA C104/A21.4-02
- PRESSURE CLASS 350 FOR 4"-24" DIAMETER PIPE - PRESSURE CLASS 250 FOR 30" OR GREATER DIAMETER PIPE
- 2. ALL DUCTILE IRON PIPE WATER MAINS SHALL BE INSTALLED WITH A MINIMUM CLEAR COVER OF 30 INCHES. ALL PVC WATER MAINS SHALL BE INSTALLED WITH MINIMUM CLEAR COVER OF 36 INCHES.
- 3. ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING AND DISINFECTING MUST COMPLY WITH THE COUNTY OFFICE MINIMUM CONSTRUCTION REQUIREMENTS.
- 4. MINIMUM CLEARANCE BETWEEN STORM STRUCTURES AND WATER MAINS SHALL BE 2', AND MAXIMUM DEFLECTION PER EACH JOINT SHALL BE 2' WHERE DEFLECTION IS REQUIRED. 5. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON MEETING ANSI/AWWA C-110/A21.10-03 SPECIFICATIONS, WITH 250 PSI MINIMUM WORKING PRESSURE. FITTINGS MUST BE CEMENT LINED
- AND SEAL COATED PER ANSI/AWWA C151/A21.51-02 AND C-104/A21.4-03. 6. MEG-A-LUG OR APPROVED EQUAL RESTRAINED JOINT CONSTRUCTION, IF APPROVED BY THE
- ENGINEER, SHALL BE USED TO MINIMIZE OR ELIMINATE THRUST BLOCKS. 7. GATE VALVES 4 INCH AND LARGER SHALL BE RESILIENT SEAT AND SHALL MEET ANSI/AWWA
- C-509-01 SPECIFICATIONS (LATEST REVISION). VALVES SHALL BE MUELLER OR APPROVED EQUAL. 8. MIN. VALVE SPACING SHALL BE AS PER SECTION 8.2 OF THE TEN STATES STANDARDS.
- 9. FIRE HYDRANTS SHALL BE AS REQUIRED BY THE MUNICIPAL AUTHORITY AND AT A MINIMUM SHALL BE TRAFFIC BREAKAWAY TYPE MUELLER CO. CENTURION MODEL NO. A-423, AMERICAN DARLING OR APPROVED EQUAL AND SHALL BE INSTALLED WITH THE CENTER OF THE HOSE NOZZLE 18" ABOVE FINISHED GRADE OR AS DIRECTED BY ENGINEER.
- 10. CONTRACTOR SHALL SUBMIT REQUIRED NUMBER OF COPIES AS REQUESTED BY THE ENGINEER OF
- THE PROPOSED MATERIALS. 1. PIPE AND FITTINGS
  - 5. WATER SERVICE TUBING
- VALVES 3. FIRE HYDRANTS

FOLLOWING LEAKAGE FORMULA:

THE ENGINEER.

- 4. CURB AND CORP. STOPS ALL OTHERS AS REQUESTED BY THE ENGINEER OR THE OWNER.
- 11. WHEN PVC PIPE IS USED FOR WATER MAINS, A 14-GAUGE MULTISTRAND COPPER WIRE OR APPROVED EQUAL MATERIAL SHALL BE INSTALLED CONTINUOUSLY ALONG THE LENGTH OF THE PIPE. THE WIRE SHALL BE BROUGHT UP AND A MINIMUM OF FOUR FEET OF EXCESS WIRE SHALL BE COILED AT EACH VALVE. A GREEN LOCATOR (MODEL NO. 1253 AS MANUFACTURED BY AUTOMATION PRODUCTS CO.) OR APPROVED EQUAL SHALL BE INSTALLED AT EVERY WATER SERVICE.

U BRANCHES

7. WATER SERVICE CASING

12. THE COMPLETE WATER SYSTEM SHALL BE HYDROSTATICALLY TESTED UNDER A MINIMUM CONSTANT PRESSURE OF 150 PSI FOR A MINIMUM 2 HOURS TEST AND SHALL NOT EXCEED THE LEAKAGE REQUIREMENTS AS PER ANSI/AWWA SPECIFICATIONS OF C600-05 IN ACCORDANCE WITH THE

$$L = \frac{SD P}{148,000}^{1/2}$$

- WHERE: L = ALLOWABLE LEAKAGE IN GPH
  - D = NOMINAL PIPE DIAMETER IN INCHES

S = LENGTH OF PIPE IN FEET

- P = AVERAGE TEST PRESSURE IN PSI
- NOTE: THE SECTION OF MAIN TESTED SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2,000'. NO ALLOWABLE LEAKAGE SHALL BE PERMITTED FOR FIRE HYDRANTS.
- 13. DISINFECTION OF WATER MAINS SHALL COMPLY WITH ANSI/AWWA C-651-05 STANDARD. 14. THE CONTRACTOR SHALL SUPPLY AND INSTALL APPROVED REFLECTIVE MARKERS IN THE STREET DRIVING LANE ADJACENT TO ALL FIRE HYDRANTS. COLOR AND LOCATION SHALL BE DIRECTED BY
- 15. PAVEMENT RESTORATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

16. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF

CHAPTER 62-555.320, FAC. 17. RESTRAINED JOINT PIPE SHALL BE USED FOR ALL BENDS, TEES, CROSSES, PLUGS AND FIRE HYDRANTS PER THE STANDARD DETAILS AND MUNICIPAL UTILITY

JULY 17, 2013 DESIGNED BY T.J.H DRAWN BY CHECKED BY <u>T.J.H.</u>

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SHEET NO. PROJECT NO. 1796.55

TIM J. HALL, P.E. FLORIDA LIC. NO. 50588 (FOR THE FIRM)

\\KSFDATA\Z\PROJECTS\17796 STOF SERVICES CONTRACT\55 NW 54TH TURNLANE RELOCATION\CAD\17796.55\_54AV-TNLN\_01-02\_CGN1.DWG

5. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.

THE ENGINEER.

c. PIPE COUPLING BANDS SHALL BE 12" WIDE STANDARD SPLIT BANDS OF THE SAME ALLOY AS THE PIPE AND MAY BE ONE GAUGE LIGHTER THAN THE PIPE. NON-PERFORATED PIPE.

2. REINFORCED CONCRETE (RCP)

WALL B OR LATEST REVISION. ALL PIPE SHALL HAVE MODIFIED TONGUE AND GROOVE JOINTS AND HAVE RUBBER GASKETS, UNLESS OTHERWISE SPECIFIED.

- 3. HIGH DENSITY POLYETHYLENE PIPE (HDPE)
- 4. POLYVINYL-CHLORIDE PIPE (PVC)

- E. STORM WATER POLLUTION PROTECTION PLAN
- A. GENERAL
- MAGNESIUM) WITH A MINIMUM LBR OF 100.
- (FDOT) STANDARDS.
- 3. ASPHALTIC CONCRETE AS SHOWN ON PLANS.
- 5. TACK COAT SHALL BE PLACED, AS REQUIRED, ON ALL ASPHALT OVERLAY, IN ACCORDANCE WITH (FDOT) STANDARDS.
- ALL PAVER MATERIAL, INSTALLATION AND MAINTENANCE SPECIFICATIONS SHALL MEET THE REQUIREMENTS OF THE OWNER/MUNICIPAL AUTHORITY.
- B. ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- A. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS AND METERS INSTALLED SHALL CONFORM TO APPLICABLE AMERICAN WATER WORKS
- C. ALL PIPE AND PIPE FITTINGS INSTALLED SHALL BE COLOR CODED OR MARKED IN ACCORDANCE (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE AND
- MARKED LIKE UNDERGROUND PIPE.) D. NEW OR ALTERED WATER MAINS CONSTRUCTED OF POLYVINYL CHLORIDE PIPE SHALL BE
- HYDRANTS, BACKFLOW PREVENTION DEVICES AND/OR FIRE DEPARTMENT CONNECTIONS.

- CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.
- 1. SUBSECTION 62-555.320(10), F.A.C READS AS FOLLOWS:

BY THE MUNICIPAL AUTHORITY.

- 1. ALL FIRE HYDRANTS SHALL COMPLY WITH THE FOLLOWING
- INSTALLATION CRITERIA: A. ALL FIRE HYDRANTS SHALL FALL WITHIN 4'-7' FEET MIN. FROM THE FACE OF THE CURB OR
- AS DIRECTED BY THE ENGINEER. B. THE 4-1/2" OUTLET SHALL FACE THE ROADWAY. C. A MINIMUM OF A 3-FOOT CLEAR, UNOBSTRUCTED SPACE SHALL BE MAINTAINED AROUND THE
- CIRCUMFERENCE OF THE FIRE HYDRANT UNLESS OTHER WISE REQUIRED OR APPROVED BY THE FIRE CHIEF. LANDSCAPING SHALL NOT OBSCURE THE FIRE HYDRANT. D. FIRE DEPARTMENT SHALL APPROVE ALL FIRE HYDRANT LOCATIONS.
- E. REFLECTORS IN THE ROADWAY TO INDICATE FIRE HYDRANT LOCATIONS SHALL BE PROVIDED AND INSTALLED AS DIRECTED BY THE ENGINEER. F. MINIMUM WATER FLOW REQUIRED FOR FIRE HYDRANTS SHALL BE 1500 GPM OR AS REQUIRED
- 2. FIRE PROTECTION MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. EXISTING FIRE HYDRANTS SHALL BE FULLY ACCESSIBLE AND ACTIVE AT ALL TIMES. FIRE HYDRANTS CALLED OUT FOR REMOVAL SHALL NOT B REMOVED OR DE-ACTIVATED WITHOUT PRIOR NOTICE TO ENGINEER. INACTIVE FIRE HYDRANTS ARE TO BE

# XVI. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS

- A. CONTRACTOR IS RESPONSIBLE FOR PREPARING SWPPP, SUBMITTING SWPPP TO FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, IMPLEMENTING AND MAINTAINING SWPPP DURING CONSTRUCTION ACTIVITIES AND ABIDING BY SWPPP REQUIREMENTS UNTIL FINAL CERTIFICATION OF SITE CONSTRUCTION IS OBTAINED.
- XVII. DEWATERING PERMIT
- A. CONTRACTOR IS RESPONSIBLE FOR OBTAINING DEWATERING PERMIT FOR ANY PROPOSED DEWATERING
- XVIII. UNSUITABLE MATERIAL REMOVAL AND DISPOSAL
- A. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION/INVESTIGATION OF SUBSURFACE CONDITIONS. ALL UNSUITABLE MATERIAL SURFACE AND SUBSURFACE WITHIN AREAS OF CONSTRUCTION IS TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. UNSUITABLE MATERIAL INCLUDES BUT IS NOT LIMITED TO: DEBRIS, ORGANICS/MUCK, AND PLASTIC MATERIAL. ALL UNSUITABLE MATERIAL REMOVED SHALL BE REPLACED WITH SUITABLE MATERIAL.
- XIX. GEOTECHNICAL REQUIREMENTS
- A. CONTRACTOR IS RESPONSIBLE FOR GEOTECHNICAL INVESTIGATIONS PRIOR TO

# XX. GENERAL NOTES-BROWARD COUNTY TRAFFIC ENGINEERING DEPT.

# A. ALL PARTIES NOTE THE FOLLOWING:

DIRECTIONAL BORES, UTILITY CONNECTIONS, THE PLACEMENT OF MOT AND ADVANCE SIGNAGE MAY BY THEIR PLACEMENT, DAMAGE/DESTROY THE COMMUNICATIONS CABLE/CONDUIT LOCATED INSIDE AND OUTSIDE THE PROJECT AREA. ADDITIONALLY. CURB/GUTTER/SIDEWALK REMOVAL/PLACEMENT, RELOCATION OF TREES, LANDSCAPING ACTIVITIES AND IRRIGATION ACTIVITIES ARE POTENTIAL CAUSES FOR DAMAGE TO BCTED'S COMMUNICATION CABLE/CONDUIT. ALL PARTIES SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN PROXIMITY TO THE COMMUNICATIONS CABLE/CONDUIT.

ANY ABOVE PROJECT ACTIVITY, INCIDENTAL OR OTHERWISE, WHICH IMPACTS OR DAMAGES THE COMMUNICATIONS CABLE/CONDUIT, SHALL BE SUBJECT TO THE FOLLOWING NOTES AND CONDITIONS BELOW.

# B. **COMMUNICATION NOTES:**

THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). ALL SYSTEM COMMUNICATIONS EQUIPMENT, CABLING AND RELATED MATERIAL SHALL COMPLY WITH BROWARD COUNTY'S LATEST EDITION OF MINIMUM STANDARDS AS EXPRESSED IN THE "STANDARDS AND SPECIFICATIONS - COMMUNICATION INFRASTRUCTURE" DOCUMENT. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION WILL NOT ACCEPT ANY PROJECTS THAT DO NOT MEET THESE STANDARDS AND SPECIFICATIONS. FOR A COPY OF THESE STANDARDS REFER TO BROWARD COUNTY WEB SITE AT WWW.BROWARD.ORG/TRAFFIC OR CONTACT ROBERT BLOUNT, COMMUNICATIONS MANAGER AT RBLOUNT@BROWARD.ORG.

THE CONTRACTOR SHALL MAINTAIN ONLINE COMMUNICATIONS OF EXISTING OR TEMPORARY SIGNALIZATION VIA INTERCONNECT COMMUNICATIONS CABLE OR TELCO PHONE LINES DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY LINES AND CONNECTIONS AS NECESSARY. A TIME-BASED-COORDINATION (TBC) SYSTEM IS TO BE UTILIZED ONLY IF PROVISION OF THE TEMPORARY LINES IS NOT FEASIBLE. THE DEVELOPMENT AND IMPLEMENTATION OF THE TBC PROGRAM IS TO BE PERFORMED BY THE CONTRACTOR WITH OVERSIGHT BY A TRAFFIC ENGINEER REGISTERED IN THE STATE OF FLORIDA. COST OF MAINTAINING COMMUNICATIONS WITH THE CENTRAL SITE, INCLUDING TEMPORARY LINES AND CONNECTIONS, SHALL BE PAID FOR UNDER THE MAINTENANCE OF TRAFFIC. ALL REPORTED MALFUNCTIONS OF THE COMMUNICATIONS SYSTEM SHALL BE RESPONDED TO BY THE CONTRACTOR WITHIN TWO HOURS AND SHALL BE REPAIRED WITHIN TWENTY FOUR HOURS.

THE CONTRACTOR SHALL BE AWARE THAT BELLSOUTH TELEPHONE DROPS AND SYSTEM COMMUNICATIONS INTERCONNECT MAY EXTEND THROUGHOUT THE PROJECT. CABLE RUNS AND/OR CONDUIT, TELEPHONE INTERFACE EQUIPMENT, PULL/JUNCTION BOXES AND ANY OTHER SIGNAL OR OTHER SYSTEMS EQUIPMENT DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. DAMAGED COMMUNICATIONS CABLE SHALL BE REPLACED AS AN ENTIRE RUN, FROM JUNCTION POINT TO JUNCTION POINT AND SHALL BE TERMINATED IN JUNCTION BOXES. THE CONTRACTOR SHALL OBTAIN SYSTEMS COMMUNICATIONS INFORMATION FROM THE APPLICABLE MAINTAINING AGENCY.

ANY MATERIAL FURNISHED FOR THE PURPOSES OF: NEW INSTALLATION, REPLACEMENT OR REPAIR OF THE EXISTING COMMUNICATIONS INFRASTRUCTURE SHALL MEET THE STANDARDS AND SPECIFICATIONS OF BCTED: ANY SUPPLIED CONTROLLER CABINET, CONTROLLER, TELEMETRY UNIT, COMMUNICATIONS CABLE, PULL BOX, CONDUIT, TERMINATION DEVICE, JUNCTION BOX AND COMMUNICATIONS INTERFACE PANEL SHALL COMPLY WITH THE LATEST REQUIREMENTS AS STATED BY BCTED AND SHALL PROVIDE FOR FULL FUNCTIONALITY WITH THE EXISTING BCTED'S UTCS OPERATION.

INCLUDE BROWARD COUNTY TRAFFIC ENGINEERING (BCTED) IN ANY NOTICE OF UTILITY OWNERSHIP OR WITHIN A "UTILITY OWNERS/CONTACT PERSON" TABLE AS: BROWARD COUNTY TRAFFIC ENGINEERING 954-487-2745 (BOB BLOUNT)

ALL BCTED COMMUNICATIONS CABLE/CONDUIT SHALL BE LOCATED IN A MINIMUM OF 48 HOURS IN ADVANCE.

# C. <u>BROWARD COUNTY TRAFFIC ENGINEERING DIVISION</u> <u>PROCEDURE FOR NOTIFICATION OF COMMUNICATION DISRUPTION:</u>

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE AN ADVANCE TWO DAY NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE COMMUNICATION'S MANAGER AT RBLOUNT@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE AT OFF PEAK HOURS BEGINNING AT 9:00AM AND ENDING AT 3:00PM.

# GENERAL NOTES-BROWARD COUNTY TRAFFIC ENGINEERING DEPT (CONTINUED)

# D. MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIAN

THE MAINTENANCE OF TRAFFIC PLAN, PROVIDED BY THE CONTRACTOR, SHALL INCLUDE PROVISIONS FOR PEDESTRIAN AND/OR SCHOOL STUDENT TRAFFIC AS WELL AS VEHICULAR TRAFFIC. THE FOLLOWING ARE MINIMUM REQUIREMENTS.

THE SAFE WALK ROUTE FOR ALL SCHOOL STUDENTS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED DURING THE TIMES STUDENTS ARE ARRIVING AT OR LEAVING SCHOOL. IF THE CURRENT WALKING SURFACE CANNOT BE MAINTAINED, THEN A TEMPORARY ROAD-ROCK 4' WALK WAY SHALL BE CREATED. THE SAFE WALK ROUTE SHALL BE SEPARATED FROM THE CONSTRUCTION ACTIVITY BY THE 4' HIGH ORANGE CONSTRUCTION FENCE FOR THE ENTIRE LENGTH OF THE PROJECT OR THE LENGTH OF THE WALK ROUTE. WHICHEVER IS LESS.

ALL CONSTRUCTION EQUIPMENT AROUND ANY DESIGNATED CROSSWALK SHALL CEASE TO OPERATE DURING THE TIMES STUDENTS ARE ARRIVING AT OR LEAVING SCHOOL. ALL CONSTRUCTION EQUIPMENT ADJACENT TO A DESIGNATED WALK ROUTE SHALL CEASE OPERATING UNLESS SATISFACTORILY BARRICADED FROM THE WALK ROUTE.

IN THE CASE THAT A DESIGNATED CROSSING OR ANY PORTION OF THE DESIGNATED WALK ROUTE CANNOT BE MAINTAINED, THEN THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2671, A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO CLOSING THAT ROUTE IN ORDER THAT AN ALTERNATE CROSSING/ROUTE CAN BE ESTABLISHED.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ANY NECESSARY PAVEMENT, ROAD ROCK, PAVEMENT MARKING AND SIGNAGE AND/OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN EXISTING OR ALTERNATE WALK ROUTE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STATE CERTIFIED SCHOOL CROSSING GUARDS OR OFF DUTY POLICE OFFICERS TO CROSS STUDENTS AT ANY LOCATIONS OTHER THAN THOSE PREVIOUSLY DESIGNATED. THE CONTRACTOR MAY USE FLAGMEN, ONLY IF THEY ARE STATE CERTIFIED AS A SCHOOL CROSSING GUARD.

<u>THIRTY (30) DAYS PRIOR\_</u>TO THE BEGINNING OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2671, TO ARRANGE A PRE-CONSTRUCTION - SCHOOL SAFETY

# IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT TO ARRANGE A PRE-CONSTRUCTION SCHOOL BUS ROUTE MEETING AT THE FOLLOWING:

# THIS MEETING IS TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THIS MEETING SHALL INCLUDE THE SPECIAL PROJECTS COORDINATOR FROM BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2671

# THE CONTRACTOR SHALL IS RESPONSIBLE FOR PROVIDING A SAFE AND ADEQUATE WALKING SURFACE FOR ALL SCHOOL CHILDREN/PEDESTRIANS. THE SAFE WALK ROUTE SHALL BE PART OF THE MAINTENANCE OF TRAFFIC PLAN.

THE CONTRACTOR SHALL IS RESPONSIBLE FOR OBTAINING AN APPROVED MAINTENANCE OF TRAFFIC PLAN (MOT), INCLUDING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS, THROUGH BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THE CONDITIONS OUTLINED IN THE MOT ARE IN FORCED AND FULLY EFFECTIVE AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL IS RESPONSIBLE FOR ENSURING THAT ALL WORK ASSOCIATED WITH THIS PROJECT IS IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE APPROVED MOT, INCLUDING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS.

THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO SPEED LIMIT SIGNS INSTALLED WITHIN THE DESIGNATED REDUCED SCHOOL ZONE, AT ANY TIME THROUGHOUT THE

Ruth Masters Routing (754) 321-4400 Ext. #2309 ruth.masters@browardschools.com

Vincent Harrell Student Transportation & Fleet Service (754) 321 4472 vincent.harrell@browardschools.com

Mary Tochtermann Student Transportation & Fleet Service (754) 321-4400 Ext. # 2006 mary.tochtermann@browardschools.com

# THIS MEETING IS TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THIS MEETING SHALL INCLUDE THE SPECIAL PROJECTS COORDINATOR FROM BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2671.

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THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO SPEED LIMIT SIGNS INSTALLED WITHIN THE DESIGNATED REDUCED SCHOOL ZONE, AT ANY TIME THROUGHOUT THE

# **LEGEND:**

**EXISTING**: ACSM AMERICAN CONGRESS ON SURVEYING AND MAPPING AIR CONDITIONER AMERICAN LAND TITLE ASSOCIATION BROWARD COUNTY RECORDS BACKFLOW PREVENTOR BOLLARD BRICK PAVERS

CALCULATED MEASUREMENT CONCRETE BLOCK STRUCTURE CHAIN LINK FENCE CLP CONCRETE LIGHT POLE CORRIGATED METAL PIPE CLEANOUT CONC

C/S CONCRETE SLAB D.B. DEED BOOK DOUBLE DETECTOR CHECK VALVE

DUCTILE IRON PIPE ELECTRIC BOX ELEVATION ELECTRIC PANEL BOX

**EASEMENT** FLORIDA DEPARTMENT OF TRANSPORTATION

FINISHED FLOOR FND. FOUND FLORIDA POWER AND LIGHT **GUYWIRE ANCHOR** 

**HANDICAP** IDENTIFICATION INVERT IRON PIPE IRON ROD

IRON ROD WITH CAP KEITH & SCHNARS ARC LENGTH LICENSED BUSINESS

LAKE WORTH DRAINAGE DISTRICT FIELD MEASURMENT MOTORCYCLE PARKING M.D.C.R. MIAMI-DADE COUNTY RECORDS

METAL LIGHT POLE MONUMENT

NORTH AMERICAN VERTICAL DATUM NAIL AND DISC

NATIONAL GEODETIC VERTICAL DATUM NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS

OVERHEAD WIRES OFFICIAL RECORDS BOOK PLAT BOOK P.B.C.R.

PALM BEACH COUNTY RECORDS POINT OF CURVATURE PERMENANT CONTROL POINT PG. PAGE

PLTR PLANTER P.O.B. POINT OF BEGINNING P.O.C. POINT OF COMMENCEMENT P.R.M. PERMANENT REFERENCE MONUMENT PROFESSIONAL SURVEYOR AND MAPPER

P.T. POINT OF TANGENCY POLYVINYL CHLORIDE PIPE RADIUS

RCP REINFORCED CONCRETE PIPE RGE. RANGE RIGHT-OF-WAY

SAN SANITARY SBT&T TELEPHONE AND TELECOMMUNICATIONS SEC. SECTION

SOUTH FLORIDA WATER MANAGEMENT DISTRICT STORMWATER TRAFFIC SIGNAL BOX

TYPICAL UTILITY EASEMENT UNKNOWN WOOD FENCE

**TOWNSHIP** 

WOOD LIGHT POLE WOOD POLE WITH CENTRAL ANGLE

FIRE HYDRANT SIAMESE CONNECTOR WATER VALVE (UNLESS NOTED OTHERWISE)

WATER METER CATCH BASIN **GUYWIRE ANCHOR** TREE PINE TREE

PALM TREE SPOTLIGHT AND/OR FLOODLIGHT

NUMBER OF PARKING SPACES HANDICAP PARKING SPACE

PROPOSED

WATER VALVE FIRE HYDRANT

WATER MAIN

EXISTING ELEVATION PROPOSED ELEVATION

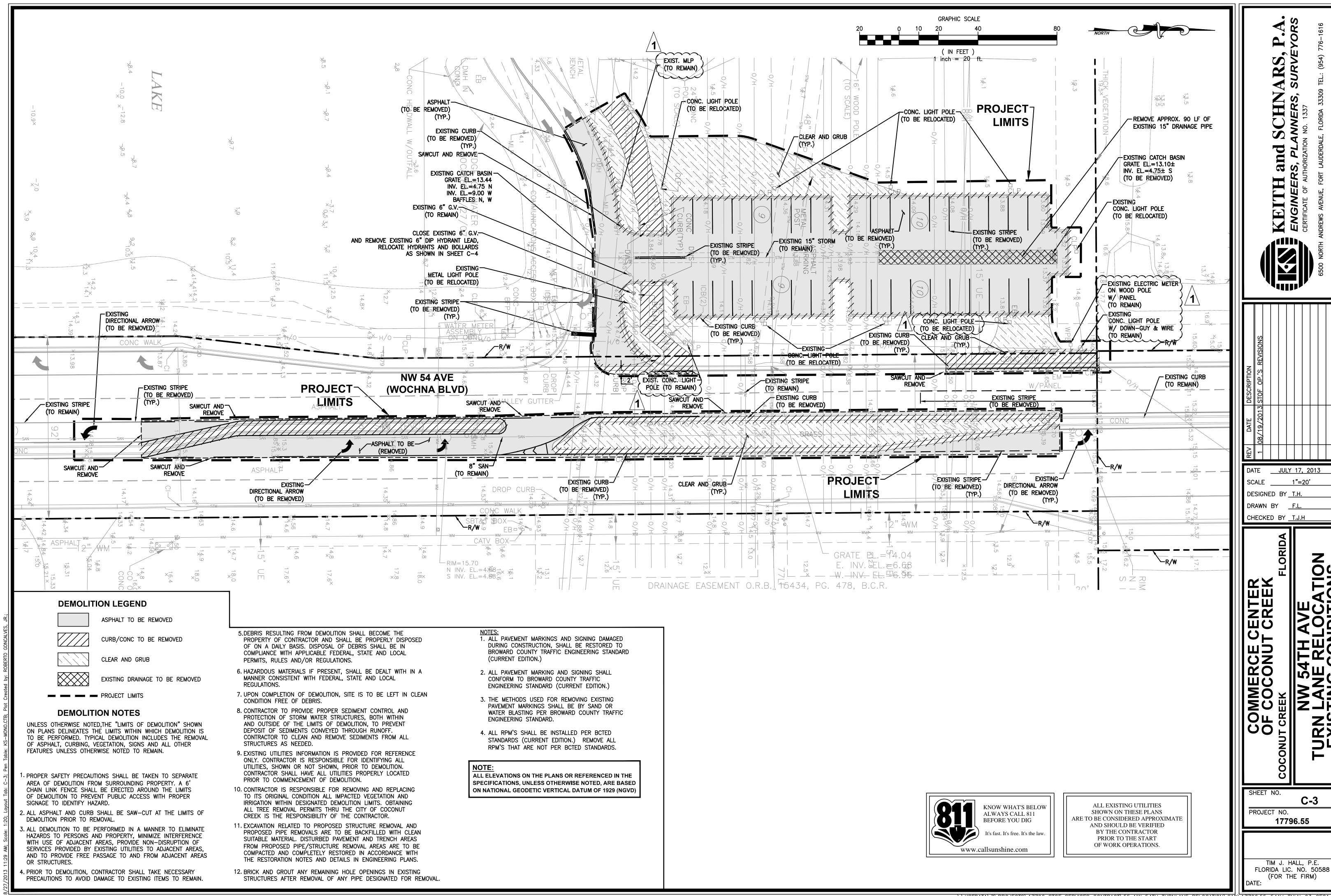
PROPOSED TYPE 'D' CURB

PROPOSED TYPE 'F' CURB

JULY 17, 2013 DESIGNED BY T.J.H. DRAWN BY

CHECKED BY <u>T.J.H.</u>

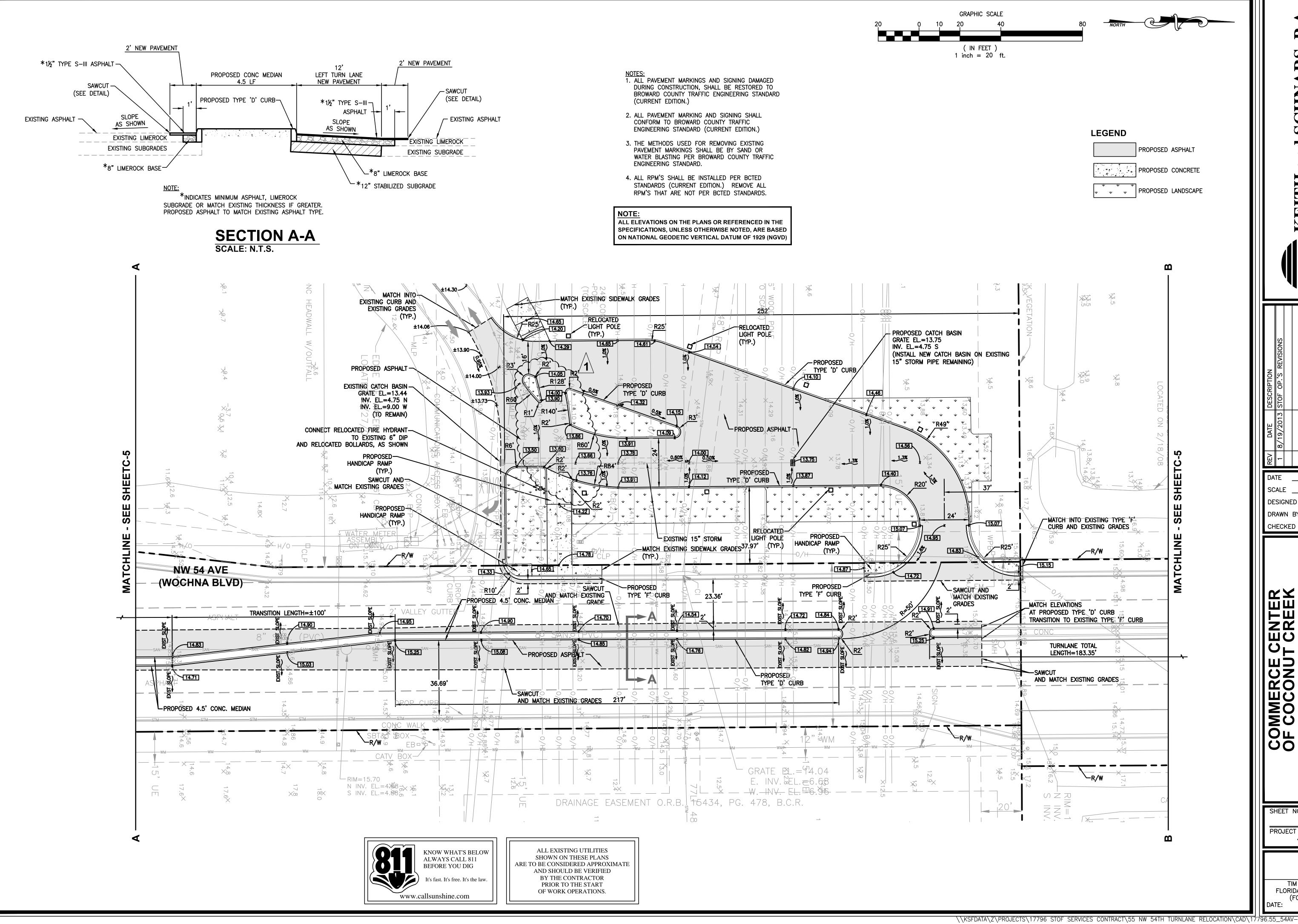
SHEET NO. PROJECT NO. 1796.55



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NO NO NO NO

**C-3** 

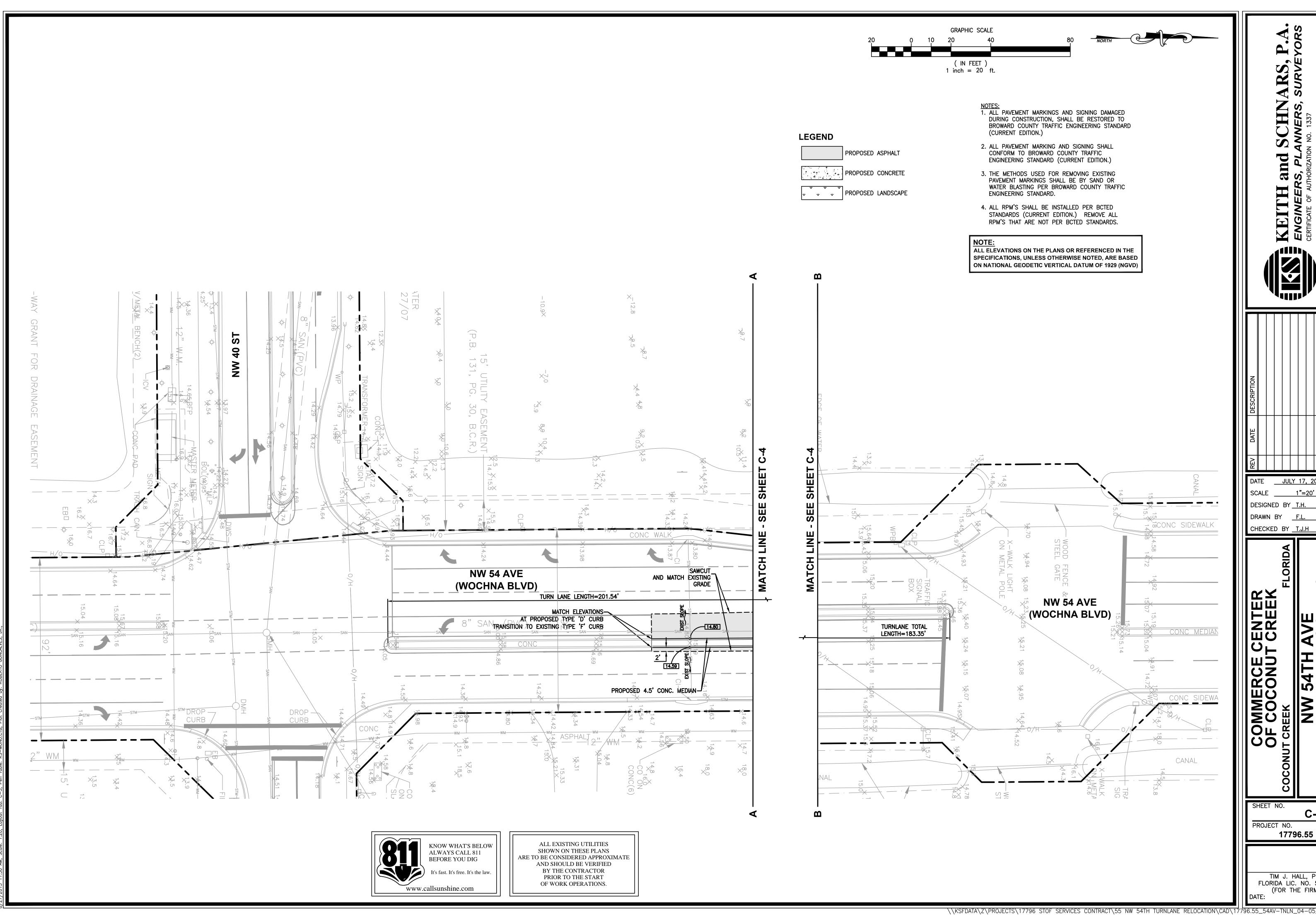


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DESIGNED BY T.H. DRAWN BY CHECKED BY T.J.H

SHEET NO. C-4 PROJECT NO.

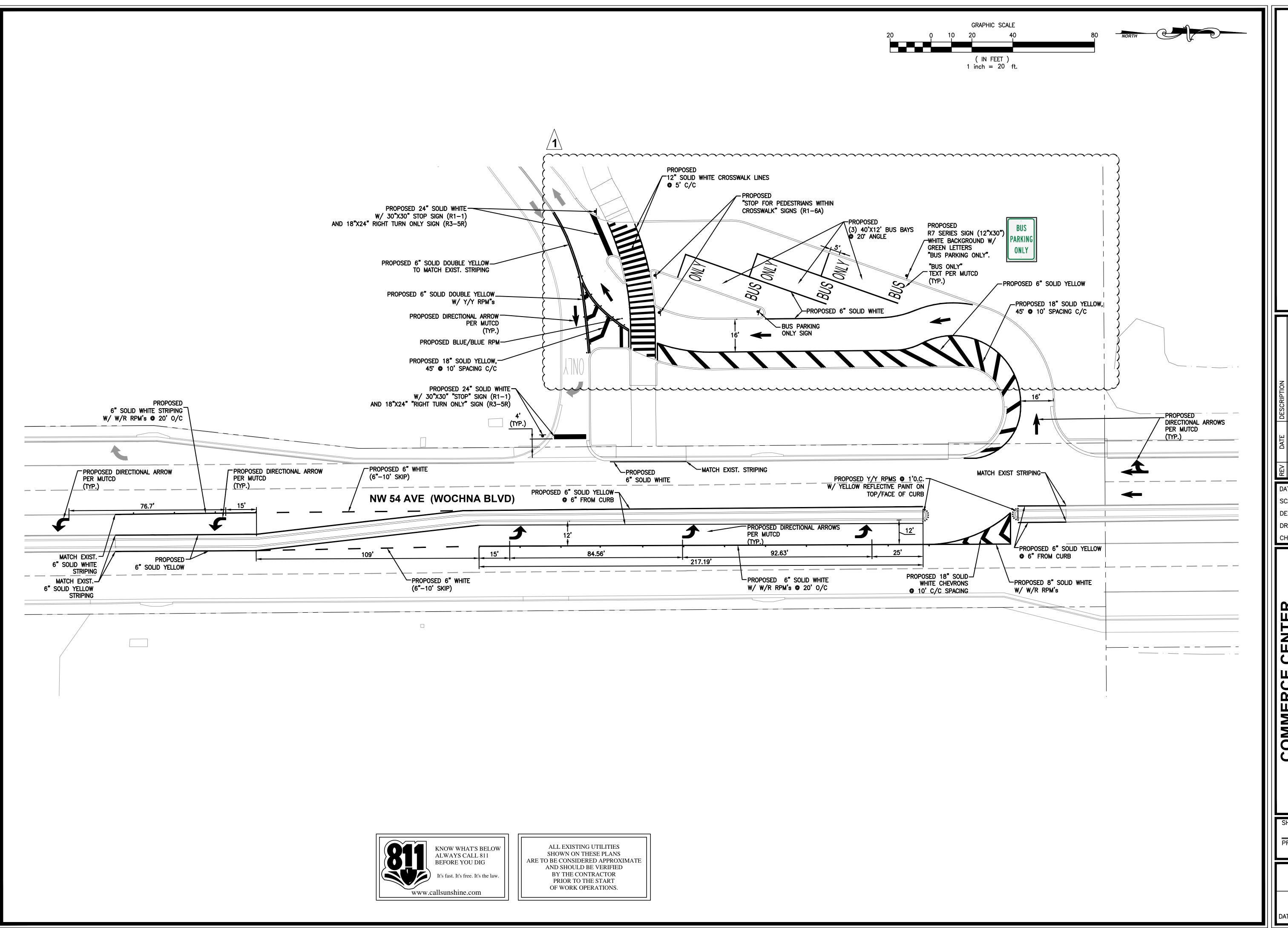
17796.55



DESIGNED BY T.H.

DRAWN BY

**C-5** PROJECT NO. 17796.55



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SCALE \_\_\_\_\_1"=20' DESIGNED BY T.H. DRAWN BY <u>F.L.</u> CHECKED BY T.J.H

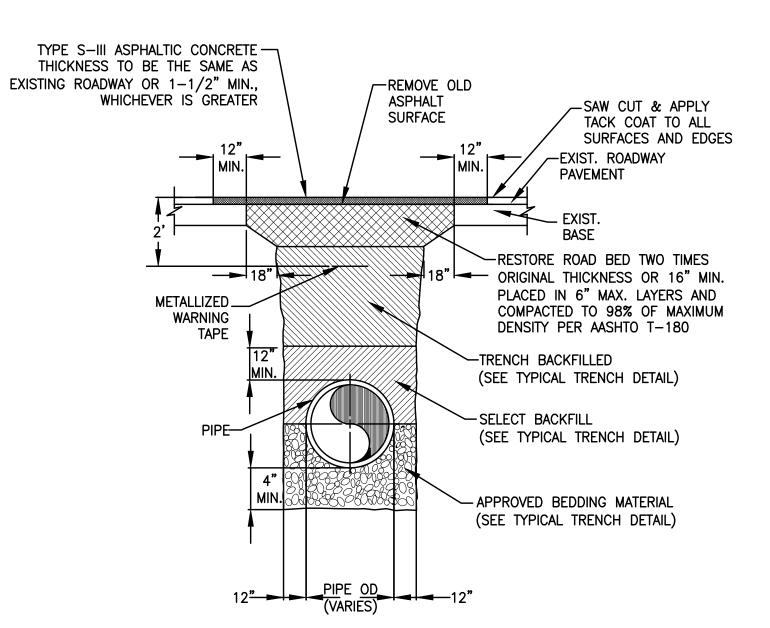
4TH AVE ERELOCATION NG AND SIGNAGE PL/ COMMERCE CENTER
OF COCONUT CREEK

SHEET NO. **C-6** PROJECT NO. 17796.55

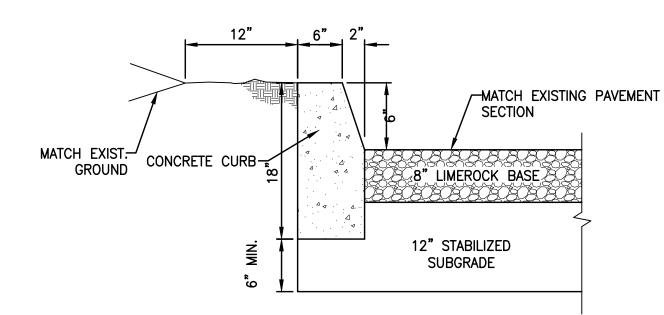
# <u>NOTES</u>:

- 1. CONTRACTOR TO PROVIDE SAFE TRENCH SLOPES PER OSHA REQUIREMENTS. WHERE SOIL CONDITIONS CAN NOT BE MAINTAINED, CONTRACTOR IS TO PROVIDE APPROVED MEANS OF CONSTRUCTION.
- 2. UNSUITABLE IN—SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGE ROCKS SHALL BE REMOVED; BEDDING MATERIAL AND BACKFILL SHALL CONSIST OF WASHED AND GRADED LIMEROCK.
- 3. THE PIPE AND/OR STRUCTURE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
- 4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, AND DEBRIS.
- 5. COMPACT BACKFILL TO 98% DENSITY UNDER PAVEMENT AND TO 95% DENSITY ELSEWHERE (AASHTO T-180)
- 6. COMPACTION AND DENSITY TESTS SHALL BE COMPLETED DURING BACKFILL OPERATIONS, CONTRACTORS NOT FOLLOWING THIS PROCEDURE, FOR WHATEVER REASONS, SHALL BE REQUIRED TO RE—EXCAVATE THE AREA IN QUESTION, DOWN TO THE BEDDING MATERIAL, THEN BACKFILL FOLLOWING THE ABOVE PROCEDURES.
- 7. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
- 8. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL (WITHIN 12" OF TOP PIPE).
- 9. WHERE UNSUITABLE SOILS ARE ENCOUNTERED AT THE PIPE INVERT, THE BEDDING MATERIAL IS TO BE EXTENDED TO A MIN. OF 16" BELOW THE INVERT ELEVATION AND NON-WOVEN FILTER FABRIC TO BE LAID BETWEEN UNSUITABLE SOILS & BASE. FILTER FABRIC TO EXTEND MIN. 12" ABOVE TOP OF PIPE.

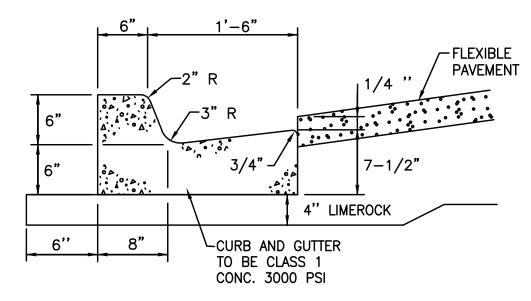
# TYPICAL TRENCH DETAIL



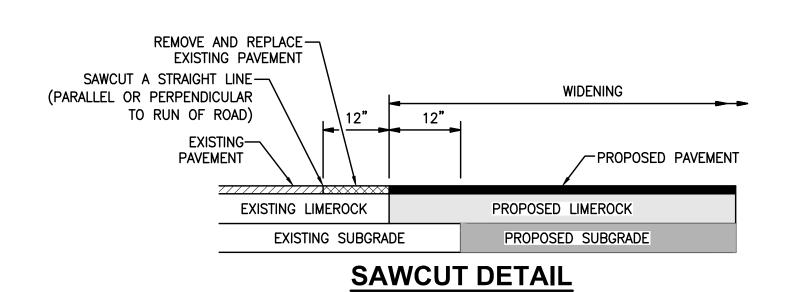
PAVEMENT RESTORATION

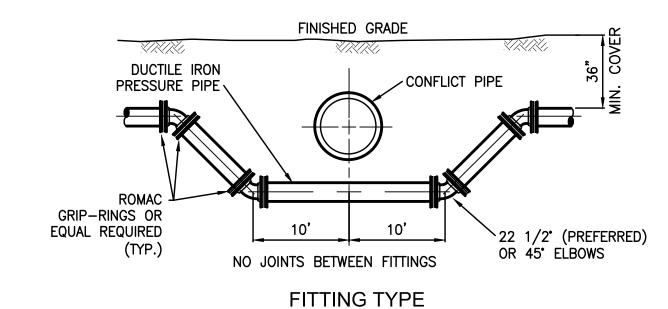


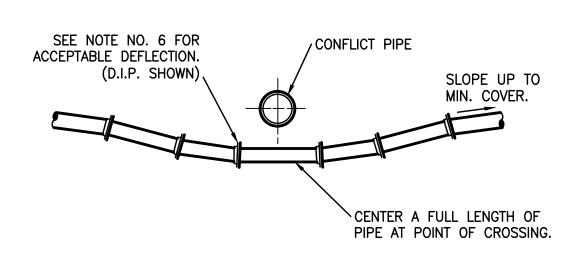
TYPE 'D' CURB



# TYPE 'F' CURB AND GUTTER







DEFLECTION TYPE

# PRESSURE PIPE CONFLICT DETAIL

# <u>NOTES</u>

- 1. STORM SEWER, GRAVITY WASTEWATER AND RECLAIMED WATER MAIN CROSSING UNDER POTABLE WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE STORM/WASTEWATER/RECLAIMED WATER PIPE JOINTS AND POTABLE WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TEN (10) FEET BETWEEN ANY TWO JOINTS, BOTH PIPES SHALL BE D.I.P., AND THE MINIMUM VERTICAL SEPARATION SHALL BE 6 INCHES. WHERE THERE IS NO ALTERNATIVE TO STORM/WASTEWATER/RECLAIMED WATER PIPES CROSSING OVER A POTABLE WATER MAIN, THE CRITERIA FOR MINIMUM 18" VERTICAL SEPARATION BETWEEN LINES AND JOINT ARRANGEMENT, AS STATED ABOVE, SHALL BE REQUIRED, AND BOTH PIPES SHALL BE D.I.P. IRRESPECTIVE OF SEPARATION. D.I.P. IS NOT REQUIRED FOR STORM SEWERS.
- 2. MAINTAIN MIN. TEN (10) FEET HORIZONTAL DISTANCE BETWEEN POTABLE WATER MAIN AND STORM SEWER, WASTEWATER MAIN, OR FORCE MAIN. MAINTAIN MIN. TEN (10) FEET HORIZONTAL DISTANCE (WALL TO WALL) BETWEEN RECLAIMED WATER MAIN AND POTABLE WATER MAIN, STORM SEWER, WASTEWATER GRAVITY MAIN OR FORCE MAIN. VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND OUTSIDE OF THE POTABLE WATER MAIN OR RECLAIMED WATER MAIN WITH THE POTABLE WATER MAIN OR RECLAIMED WATER THE FORCE MAIN.
- 3. FORCE MAIN CROSSING POTABLE WATER MAIN OR RECLAIMED WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND OUTSIDE OF THE POTABLE WATER MAIN OR RECLAIMED WATER MAIN WITH POTABLE WATER MAIN OR RECLAIMED WATER MAIN CROSSING OVER THE FORCE MAIN.
- 4. FITTINGS SHALL BE RESTRAINED.5. THE DEFLECTION TYPE CROSSING IS PREFERRED.
- 6. DO NOT EXCEED 75% OF MANUFACTURER'S RECOMMENDED MAXIMUM JOINT DEFLECTION FOR DUCTILE IRON PIPE.

# PRESSURE PIPE CONFLICT NOTES

KNOW WHAT'S BELOW

ALWAYS CALL 811
BEFORE YOU DIG

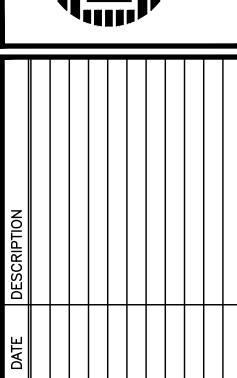
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ALL EXISTING UTILITIES
SHOWN ON THESE PLANS
ARE TO BE CONSIDERED APPROXIMATE
AND SHOULD BE VERIFIED
BY THE CONTRACTOR
PRIOR TO THE START
OF WORK OPERATIONS.

KEITH and SCHNARS, P.A

ENGINEERS, PLANNERS, SURVEYORS
CERTIFICATE OF AUTHORIZATION NO. 1337



DATE JULY 17, 2013

SCALE N.T.S.

DESIGNED BY T.H.

DRAWN BY F.L.

CHECKED BY T.J.H

SE CENTER NUT CREEK FLORIDA E TURN LANE RFI OCATION

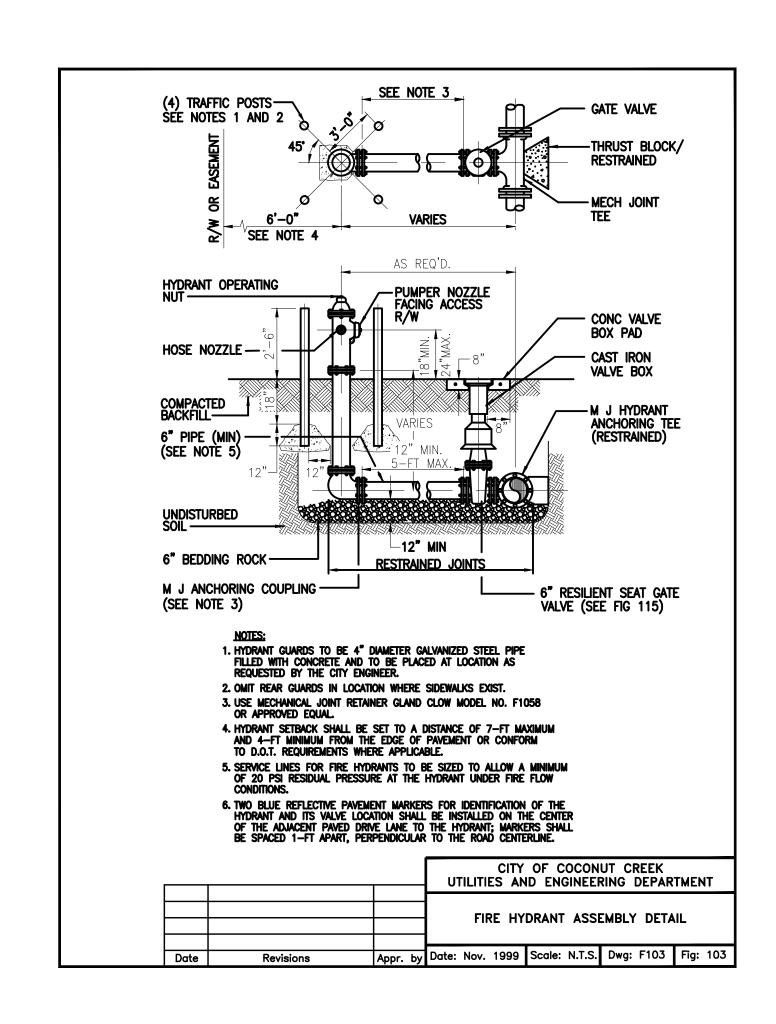
NW 54TH AVE TURN L TURN LANE RELOCAT

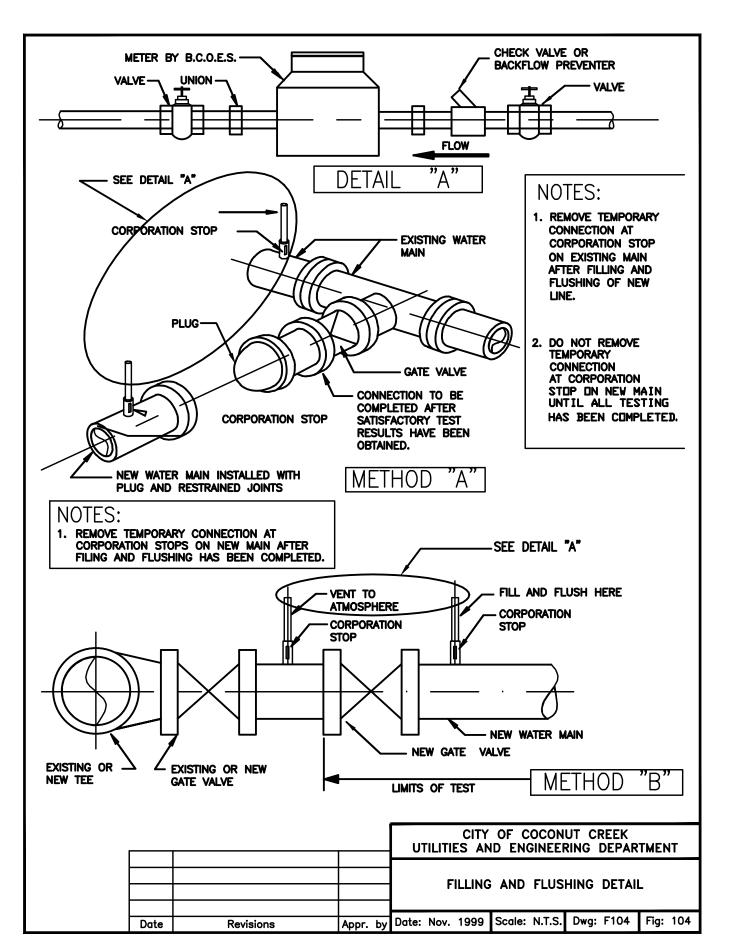
SHEET NO.

C-7

PROJECT NO.

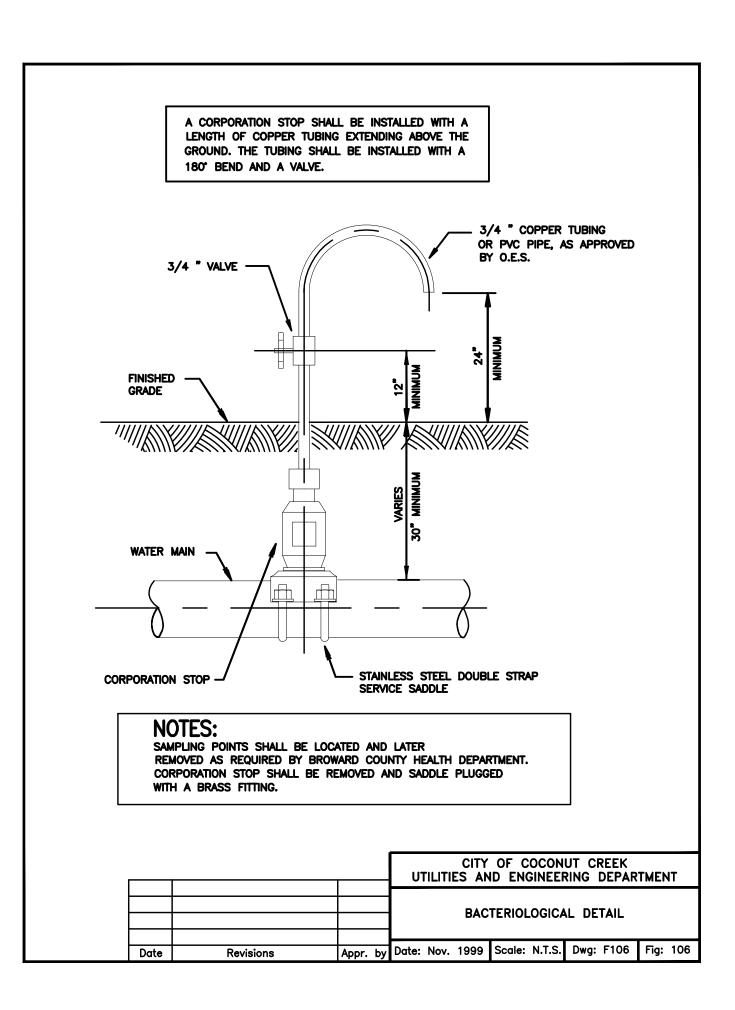
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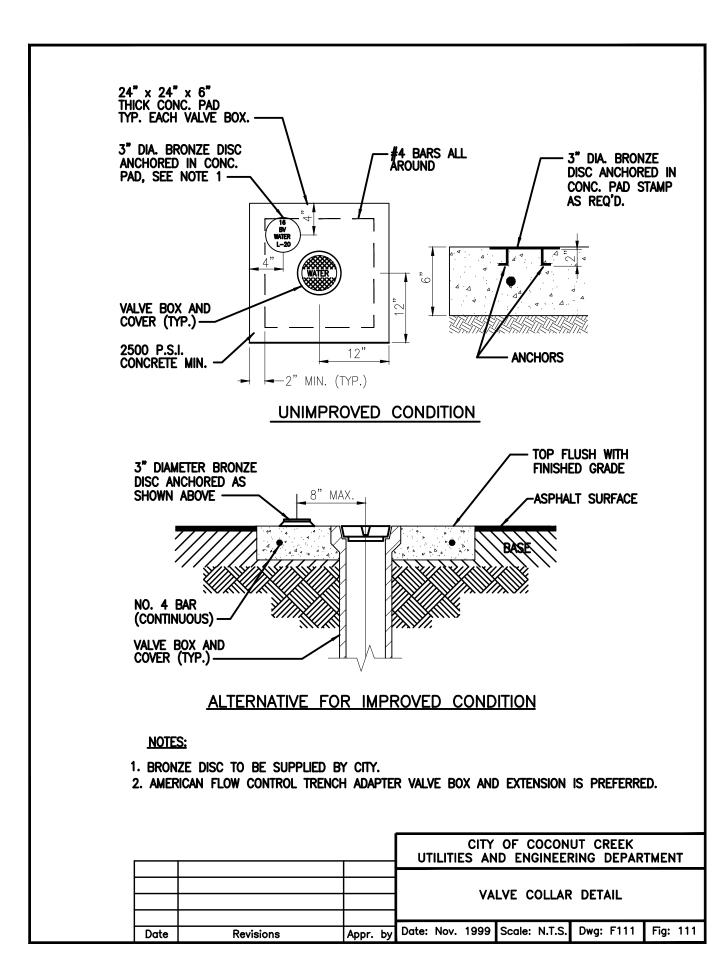


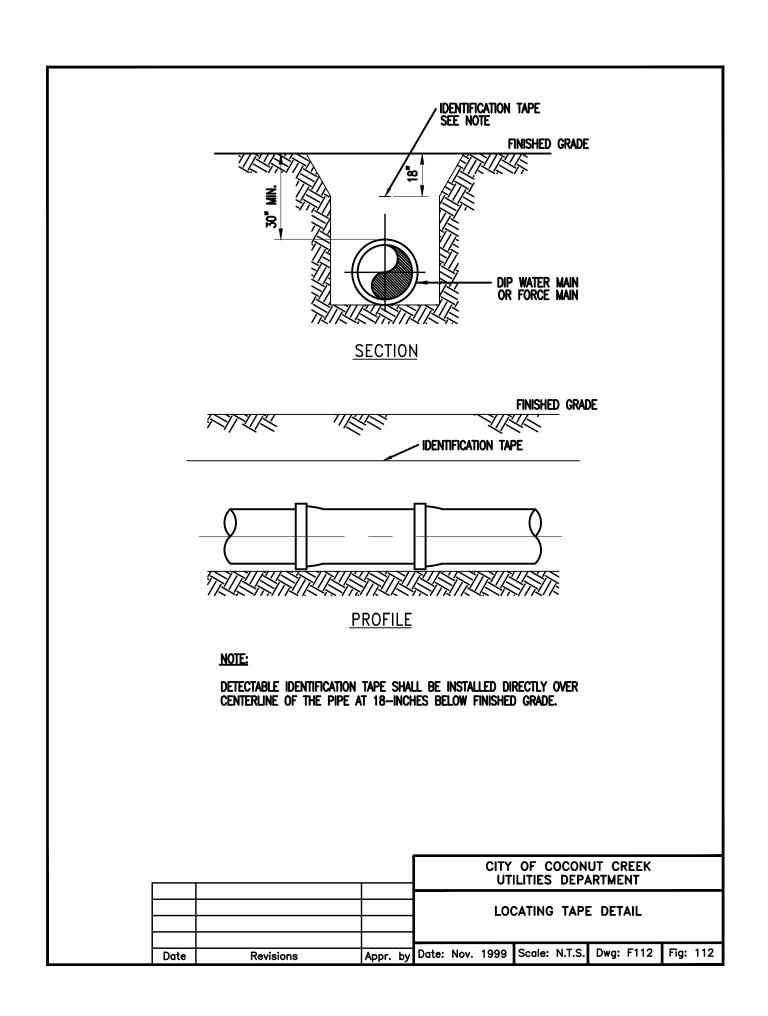


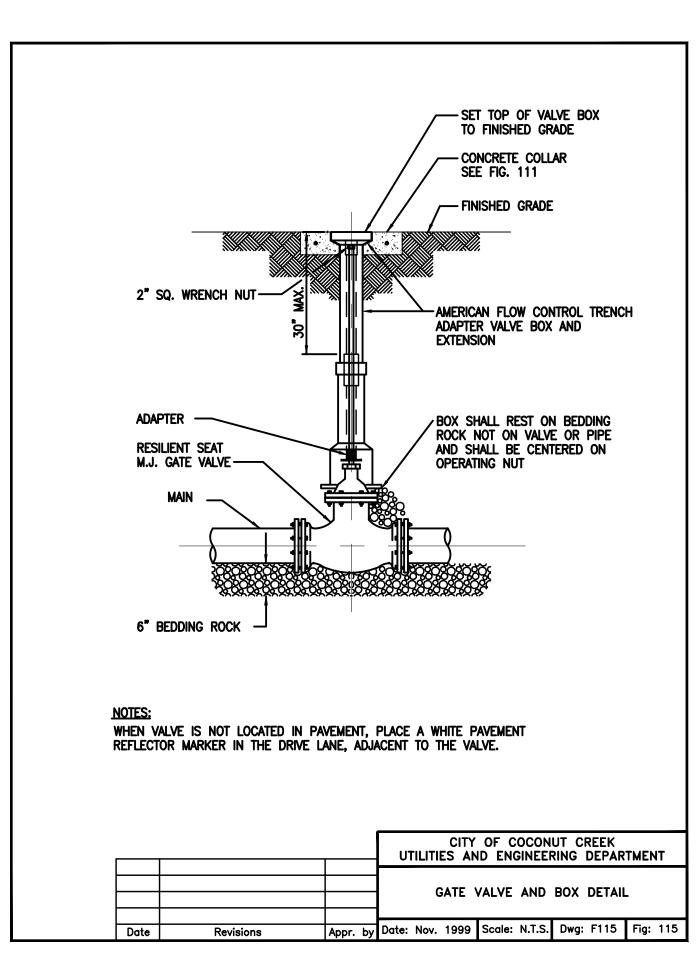


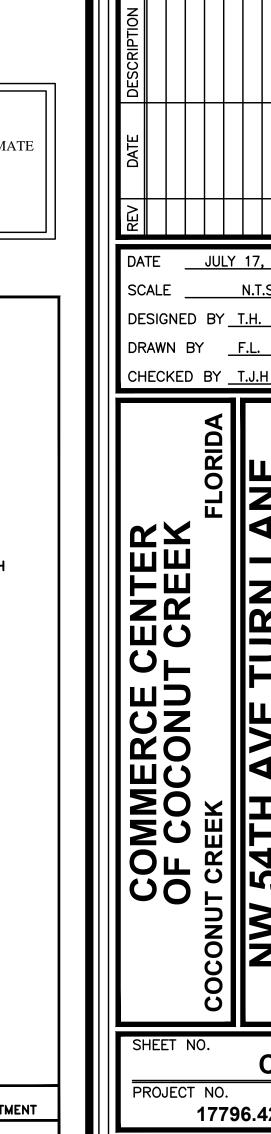
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