BID PLANS FOR THE

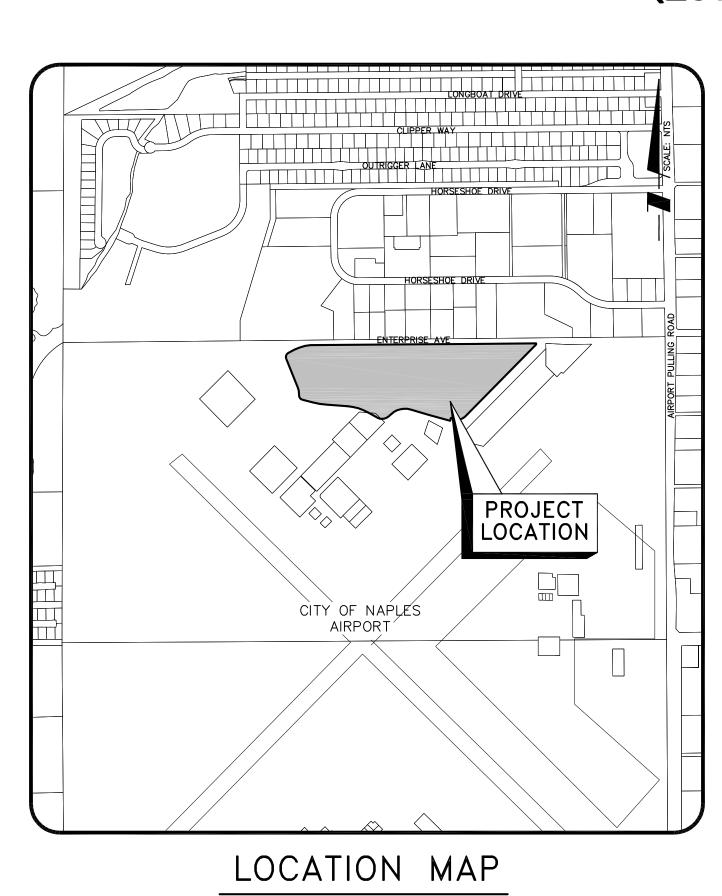
CITY OF NAPLES RECYCLE TRANSFER FACILITY

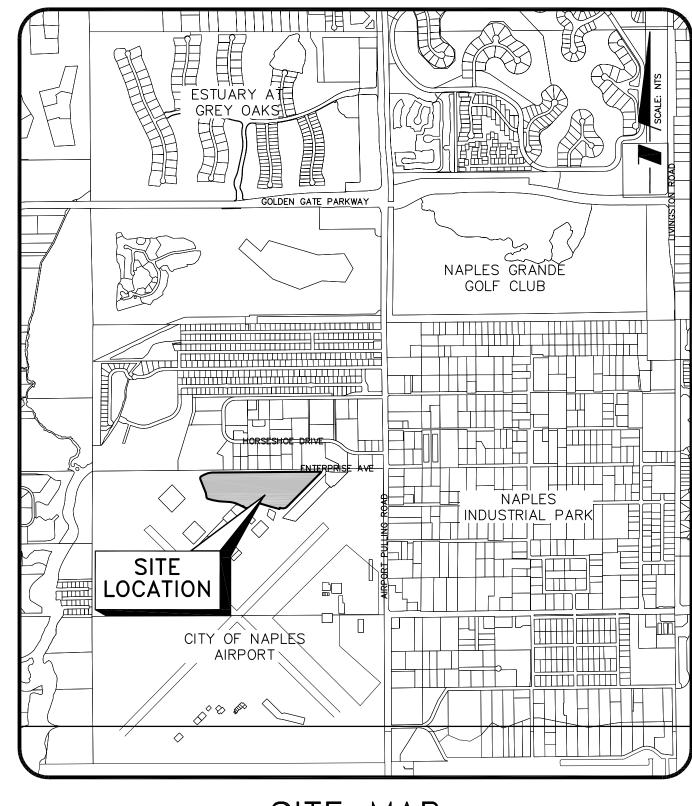
PART OF SECTION 2, TOWNSHIP 50 SOUTH, RANGE 25 EAST, COLLIER COUNTY, FLORIDA

A DEVELOPMENT BY

CITY OF NAPLES

380 RIVERSIDE CIRCLE NAPLES, FLORIDA 34102 (239) 213-4745





SITE MAP

_____FIRE HYDRANT, COMPLETE _____ FIRE DEPARTMENT CONNECTION _____POST INDICATOR VALVE _____BLOW-OFF W/BACTERIAL SAMPLE POINT ____BACTERIAL SAMPLE POINT _____WATER METER __IRRIGATION METER — BACKFLOW PREVENTER/ABOVE GROUND METER — _____SANITARY SEWER MANHOLE _____SANITARY SEWER LATERAL & CLEAN-OUT _____STORM SEWER & STRUCTURE __STORM SEWER & STRUCTURE WITH SIDE INLETS __ CONTROL STRUCTURE _____MITERED END/FLARED END SECTION __PROPOSED ELEVATION PROPOSED PAVEMENT ELEVATION ____EXISTING ELEVATION

_EGEND

ABBREVIATIONS

_ NAPLES AIRPORT AUTHORITY

_____DUCTILE IRON PIPE __POLYVINYL CHLORIDE PIPE _HIGH DENSITY POLYETHYLENE _ REINFORCED CONCRETE PIPE

CITY OF NAPLES PUBLIC UTILITIES

_____CORRUGATED METAL PIPE

X.XX' LT/X.XX' RT_____FEET LEFT or FEET RIGHT

SYMBOLS

——⊗—— _____ AIR RELEASE VALVE, COMPLETE

IN-LINE PLUG VALVE W/ BOX — → IN-LINE VALVE W/ BOX IN-LINE CHECK VALVE W/ BOX

_ELLIPTICAL REINFORCED CONCRETE PIPE

_____STORM SEWER STRUCTURE

NOTE: OPEN SYMBOLS AND DASHED LINES DENOTE EXISTING IMPROVEMENTS

_ EXISTING PAVEMENT ELEVATION

__ SWALE & DIRECTION OF FLOW

____ HANDICAPPED PARKING SPACE

_____DIRECTION OF DRAINAGE FLOW

WilsonWiller & Stantec

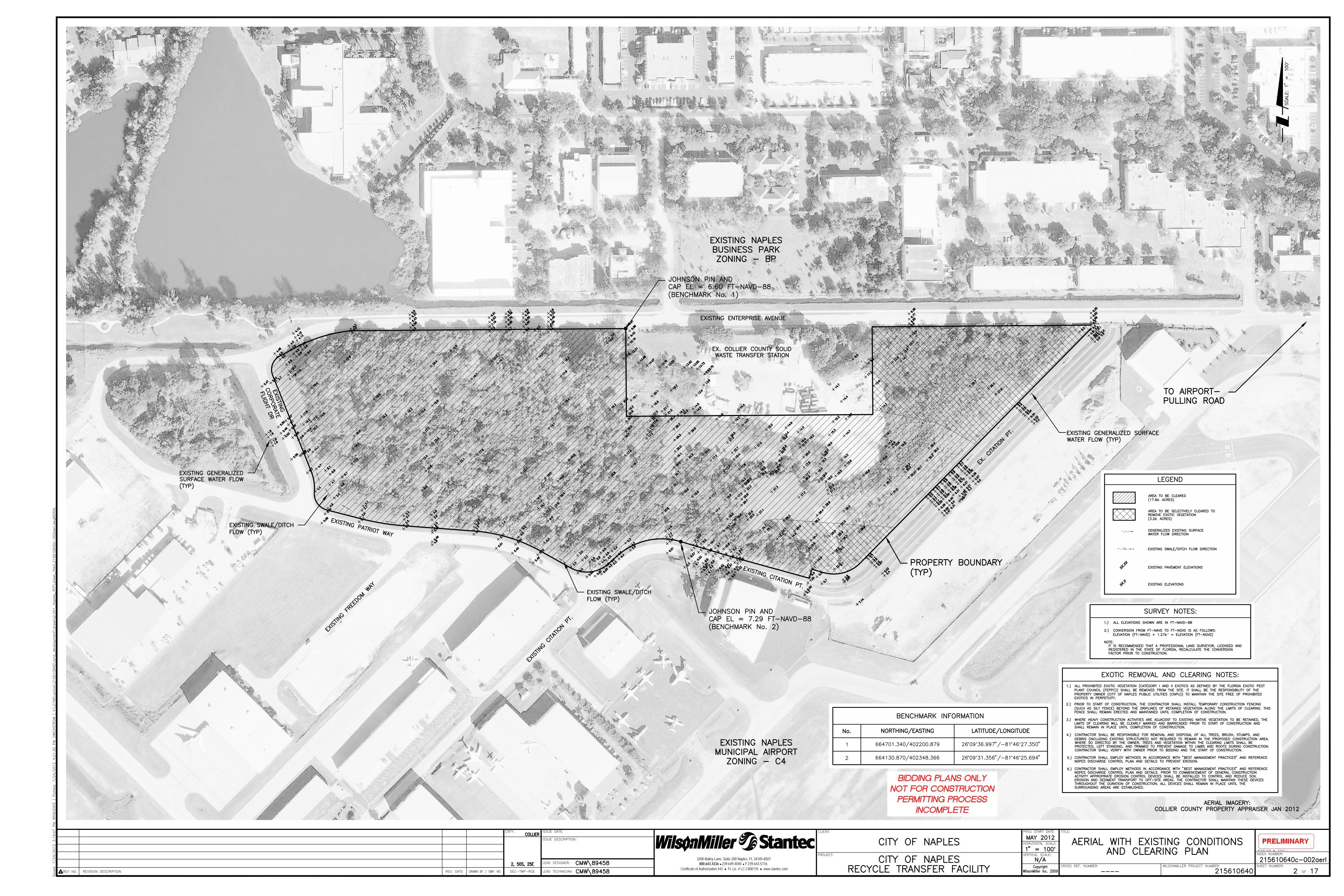
PERMITTING PROCESS INCOMPLETE RESERVED FOR STATUS AND DATE STAMPS PROJECT NUMBER **PRELIMINARY** 215610640 INDEX NUMBER DATE MAY 2012 3200 Bailey lane, Suite 200 • Naples, Florida 34105-8507 • Phone 239-649-4040 • Fax 239-263-6494 • Web-Site www.stantec.com 215610640-001

DESCRIPTION COVER SHEET AERIAL WITH EXISTING CONDITIONS AND CLEARING PLAN GENERAL, UTILITY, SITE DESIGN AND COORDINATION NOTES OVERALL SITE PLAN SITE PLAN - UTILITIES SITE PLAN - DRAINAGE AND UNDERCUT EXCAVATION SITE PLAN — PAVING AND GRADING (WEST) SITE PLAN — PAVING AND GRADING (EAST) PLAN AND PROFILE - EX. MH TO MH #2 PLAN AND PROFILE - WATER MAIN CROSS SECTION MAP AND CROSS SECTIONS DRAINAGE AND CONTROL STRUCTURE DETAILS PAVING DETAILS CITY OF NAPLES WATER UTILITY DETAILS 15 CITY OF NAPLES GENERAL UTILITY DETAILS 16 CITY OF NAPLES SANITARY SEWER AND IRRIGATION DETAILS NPDES DISCHARGE CONTROL PLAN AND DETAILS NO. DATE DESCRIPTION STATUS: REVISIONS PROJECT DESIGNER PROJECT SURVEYOR RAYMOND J. PIACENTE, III LANCE T. MILLER RAYMOND J. PIACENTE, III P.S.M. **#5627** P.M.P., LEED AP P.M.P., LEED AP

BIDDING PLANS ONLY

NOT FOR CONSTRUCTION

FOLIO #20764680005



GENERAL NOTES:

- 1.) A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE WITH PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), CITY OF NAPLES ENGINEERING SERVICES, NAPLES AIRPORT AUTHORITY (NAA) AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) COMPLIANCE AND WASTE MANAGEMENT DEPARTMENT
- PRIOR TO THE START OF CONSTRUCTION. 2.) ALL MATERIALS AND CONSTRUCTION METHODS USED FOR THE PROPOSED IMPROVEMENTS SHALL CONFORM TO THE APPROVED CONSTRUCTION DOCUMENTS AND TECHNICAL SPECIFICATIONS PROVIDED BY THE CIVIL AND GEOTECHNICAL ENGINEERS OF RECORD, ARCHITECT, UTILITY PROVIDER (CITY OF NAPLES PUBLIC UTILITIE (CNPU)) AND CITY OF NAPLES UTILITIES SPECIFICATIONS AND STANDARDS MANUAL (LATEST APPROVED EDITION) IICHÉVER IS MORE STRINGENT, AND ALL FEDERAL, STATE AND LOCAL REGULATIONS
- 3.) CITY OF NAPLES PUBLIC UTILITIES (CNPU), NAPLES AIRPORT AUTHORITY (NAA) FLORIDA POWER AND LIGHT (FPL), CENTURYLINK AND COMCAST MAY HAVE EXISTING UTILITIES ADJACENT TO THIS PROPOSED CONSTRUCTION CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITIES TO LOCATE THEIR FACILITIES PRIOR TO THE START OF
- 4.) CONTRACTOR SHALL BE RESPONSIBLE IN COORDINATING WITH THE FOLLOWING RESPECTIVE UTILITY COMPANIES AND AGENCIES FOR COORDINATION OF SERVICES AND CONNECTIONS FOR THE PROJECT: CITY OF NAPLES PUBLIC UTILITIES (CNPU): JUSTIN FREDERIKSEN, PE (239) 213-4762 CITY OF NAPLES FIRE DEPARTMENT (CNED) BILL KRUMBHOLZ FDEP SOLID/HAZARDOUS WASTE DEPARTMENT JAMES (JAY) STANDIFORD (239) 344-569 FDEP COMPLIANCE/WASTE MGMT DEPARTMENT NAPLES AIRPORT AUTHORITY (NAA) KERRY KEITH (239) 643-0733 FLORIDA POWER AND LIGHT (FPL): TROY TODD (239) 353-6070 TAMI ROWELL (239) 415-1717 KELLY CLARK (239) 263-6223
- 5.) THE LOCATION OF EXISTING UTILITIES AND STORM SEWER SHOWN WITHIN THESE CONSTRUCTION DOCUMENTS HAVE BEEN PREPARED FROM AVAILABLE RECORD DRAWINGS AND SURVEY INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS PRIOR TO CONSTRUCTION AND PROVIDE IN WRITING ANY DISCREPANCIES TO THE DESIGNER OR ENGINEER OF RECORD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE ANY INFRASTRUCTURE DAMAGED DURING
- 6.) THESE CONSTRUCTION DOCUMENTS ARE NOT INTENDED TO BE ALL INCLUSIVE OF EXISTING FACILITIES OR MATERIALS TO BE REMOVED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTING CONDITIONS WITH REGARDS TO THE BUILDING AND SITE MODIFICATIONS NECESSARY TO ACCOMMODATE THE
- 7.) ALL ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE INCLUDED AT THE EXPENSE OF THE CONTRACTOR, INCLUDING REMOVAL AND DUMPING FEES, MATERIALS, LABOR, ETC.,
- ASSOCIATED WITH THE RESTORATION. 8.) CONTRACTOR MAY UTILIZE EXISTING OFFSITE FIRE HYDRANTS AS A MEANS IN PROVIDING TEMPORARY POTABLE WATER DURING THE COURSE OF CONSTRUCTION, UNTIL PERMANENT SERVICE CAN BE ESTABLISHED CONTRACTOR SHALL VERIFY FEASIBILITY AND REQUIREMENTS, SUCH AS CROSS-CONNECTION CONTROL (RI BACKFLOW DEVICE ASSEMBLY). WITH CITY OF NAPLES PUBLIC UTILITIES (CNPU) AND CITY OF NAPLES FIRE DEPARTMENT (CNFD) DURING THE BIDDING AND CONSTRUCTION PHASES OF THE PROJECT. IT SHALL B RESPONSIBILITY OF THE CONTRACTOR TO INCLUDE IN THEIR BID PROPOSAL THE USE OF OTHER TEMPORARY
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DEVIATION IN PLAN INFORMATION SHALL BE REPORTED TO ENGINEER IMMEDIATELY.

WATER SOURCES IF UTILIZING EXISTING OFFSITE FIRE HYDRANTS IS PROHIBITED.

- 10.) ALL INVERTS AND FLEVATIONS ARE SHOWN IN FFET AND BASED ON NORTH AMERICAN VERTICAL DATUM 1988 (NAVD-88). HOWEVER, TO CONVERT TO NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD), ADD 1.27± FEET TO EACH ELEVATION. SINCE THE CONVERSION FACTOR MAY VARY SLIGHTLY, IT IS RECOMMENDED THAT A PROFESSIONAL LAND SURVEYOR, LICENSED AND REGISTERED IN THE STATE OF FLORIDA, RECALCULATE THE CONVERSION FACTOR PRIOR TO THE START OF CONSTRUCTION.
- 11.) CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING COPIES OF AND COMPLYING WITH ALL PERMITS AND PERMIT PLANS OBTAINED BY THE PROPERTY OWNER, AND POST ALL PERMITS AND PERMIT PLANS AT THE JOB SITE.
- 12.) CONTRACTOR IS REQUIRED TO OBTAIN FROM THE CIVIL ENGINEER WRITTEN APPROVAL FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
- 13.) CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF CITY OF NAPLES CODES OF ORDINANCES. 14.) IT IS NOT ANTICIPATED THAT THE CONSTRUCTION ACTIVITIES WILL REQUIRE DEWATERING. HOWEVER, IF THE SITE CONDITIONS AND PROPOSED INFRASTRUCTURE DOES REQUIRE DEWATERING ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AND OBTAIN AN APPROVED NO-NOTICE PERMIT FROM
- SFWMD PRIOR TO THE START OF CONSTRUCTION. 15.) CONTRACTOR IS RESPONSIBLE FOR OBTAINING A BLASTING PERMIT, IF REQUIRED BY THE CITY OF NAPLES
- 16.) THE PROJECT AREA IS MORE THAN ONE ACRE, THEREFORE THE CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. ACCORDINGLY, THE CONTRACTOR IS ALSO RESPONSIBLE FOR CREATING, IMPLEMENTING AND MAINTAINING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS PER THE REQUIREMENTS OF THE NPDES GENERAL PERMIT.
- 17.) CONTRACTOR SHALL EMPLOY METHODS IN ACCORDANCE WITH "BEST MANAGEMENT PRACTICES" AND REFERENCE NDPES DISCHARGE CONTROL PLAN AND DETAILS. PRIOR TO COMMENCEMENT OF GENERAL CONSTRUCTION ACTIVITY APPROPRIATE EROSION CONTROL DEVICES SHALL BE INSTALLED TO CONTROL AND REDUCE SOIL EROSION AND SEDIMENT TRANSPORT TO OFF-SITE AREAS. THE CONTRACTOR SHALL MAINTAIN THESE DEVICES SHOUT THE DURATION OF CONSTRUCTION. ALL DEVICES SHALL REMAIN IN PLACE UNTIL THE SURROUNDING AREAS ARE ESTABLISHED.
- 18.) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND USAGE OF THE EXISTING STREETS ADJACENT TO THE PROJECT. ALL TRAFFIC MAINTENANCE CONTROLS SHALL BE IN ACCORDANCE WITH FLORIDA MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS. MAINTENANCE OF TRAFFIC PLAN SHALL REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION IT IS NOT ANTICIPATED THE SCOPE OF WORK WILL REQUIRE THE NEED TO APPLY FOR AND RECEIVE A RIGHT-OF-WAY (ROW) PERMIT FROM COLLIER COUNTY TRANSPORTATION SERVICES DIVISION. HOWEVER, IF THE CONTRACTOR'S SITE LOGISTICS REQUIRES STAGING ON ENTERPRISE AVENUE, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH COLLIER COUNTY AND OBTAIN. IF NECESSARY. AN APPROVED ROW PERMIT PRIOR TO CONSTRUCTION, AND TO PREPARE, SECURE APPROVAL OF, IMPLEMENT AND MAINTAIN THE MAINTENANCE OF TRAFFIC (MOT) PLAN UNTIL COMPLETION OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE NAPLES AIRPORT AUTHORITY (NAA) ON ACCESS AND STAGING WITHIN
- 19.) UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSL LEARED AREAS OR AS DIRECTED BY THE OWNER. CONTRACTOR SHALL NOT REMOVE AND/OR DISTURB ANY TREES AND/OR SHRUBS WITHOUT PRIOR APPROVAL BY OWNER.
- 20.) ALL UNDERGROUND UTILITIES AND INFRASTRUCTURE LOCATED BENEATH THE STABILIZED PORTION OF THE ROAD BED SHALL BE INSTALLED PRIOR TO COMPACTION OF THE SUBGRADE OR AS OTHERWISE DIRECTED
- 21.) ALL STORM WATER REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL BE WRAPPED WITH FILTER FABRIC (MIRAFI OR APPROVED EQUAL).
- 22.) STORM WATER PVC PIPE MATERIAL SPECIFICATIONS:

 A. PIPES 12-INCH IN DIAMETER AND GREATER, DESIGNED TO BE CONSTRUCTED UNDER PAVEMENT, SHALL BE CONTECH A-2000 PVC, COLOR-CODED WHITE

 B. PIPES 12-INCH IN DIAMETER AND GREATER, NOT DESIGNED TO BE CONSTRUCTED UNDER PAVEMENT, SHALL BE EITHER CONTECH A-2000 PVC, COLOR-CODED WHITE, OR ADS N-12 (DUAL-WALL),

C. PIPES 10-INCH IN DIAMETER AND SMALLER SHALL BE MATERIAL SPECIFICATION SCHEDULE 40,

- NOTE: ALTERNATES FOR ALL PIPE SIZES MAY BE CONSIDERED PROVIDED APPROVAL FROM THE CIVIL ENGINEER IS OBTAINED. MATERIAL ALTERNATES MUST BE REVIEWED DURING THE PROJECT'S
- 23.) CONTRACTOR SHALL REFERENCE PLANS AND TECHNICAL SPECIFICATIONS FOR SHOP DRAWING REQUESTS, PARTICULARLY FOR FACILITIES REQUIRING SPECIAL DETAILS AND SPECIFICATIONS WHICH ARE TO BE PROVIDED BY A STRUCTURAL, MECHANICAL OR ELECTRICAL ENGINEER.
- 24.) CONTRACTOR SHALL PROVIDE 72 HOURS WRITTEN NOTICE TO THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), CITY OF NAPLES ENGINEERING SERVICES, AND CIVIL ENGINEER PRIOR TO THE START OF CONSTRUCTION ACTIVITIES INCLUDING, AND NOT LIMITED TO, THE FOLLOWING: A. COMMENCEMEN
- B. CHANGES TO APPROVED SCHEDULES, SUBCONTRACTORS, OR RESIDENT SUPERINTENDENT (OWNER AND ENGINEER ONLY)
- C. GENERAL

 1. ROADWAY AND PARKING AREA STRINGLINE
- 2. PAVING (INCLUDING SIDEWALK AND CURBING)
 3. FINAL INSPECTIONS OTHERS AS MAY BE REQUIRED BY PROPERTY OWNER, CITY OF NAPLES ENGINEERING SERVICES AND
- 25.) ALL CATCH BASIN OPENINGS, WHERE APPROPRIATE, SHALL BE COVERED WITH FILTER FABRIC (MIRAFI 140N OR APPROVED EQUAL) TO PREVENT DEBRIS AND FILL FROM FALLING INTO THE INLET DURING THE COURSE
- 26.) ALL PROPOSED CONDUITS SHALL EXTEND 5-FEET BEYOND THE EDGE-OF-PAVEMENT, BACK-OF-CURB OR BACK-OF-SIDEWALK AT EACH END.
- 27.) ANY PROPOSED PERMANENT STRUCTURES, PROPOSED ENTRY/SIGN FEATURES, SITE WALLS AND FLAG POLES MUST BE SHOWN ON THE STAMPED APPROVED CITY OF NAPLES SITE PLAN. CONTRACTOR SHALL APPLY SEPARATELY FOR THE APPROPRIATE BUILDING PERMITS, WHERE APPLICABLE, AS OUTLINED IN THE CITY OF
- NAPLES BUILDING CODE AND CODE OF ORDINANCES.
- 28.) ALL PRIVATE STREETS, PARKING AREAS, WATER MANAGEMENT FACILITIES, COMMON AREAS, SECURITY FENCING, LANDSCAPING AND AMENITIES SHOWN ON THESE CONSTRUCTION DOCUMENTS SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), ITS SUCCESSORS AND ASSIGNS.
- 29.) THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) IS RESPONSIBLE FOR PERPETUAL NANCE OF ALL FEATURES OF THE SURFACE WATER MANAGEMENT SYSTEM AND PERIMETER BERMS AS OUTLINED BY THE CIVIL ENGINEER ON THESE SITE PLANS.
- 30.) ALL PERIMETER BERM SHALL BE CONSTRUCTED AND MAINTAINED ALONG THE DRAINAGE BASIN BOUNDARY AS SHOWN ON SITE PLANS AND CROSS SECTION DETAILS.
- 31.) THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) IS RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF ALL LANDSCAPE MATERIAL AND SUPPORTING IRRIGATION SYSTEM.
- 32.) CONTRACTOR SHALL REFERENCE ARCHITECT'S OR ELECTRICAL ENGINEER'S PLANS FOR STREET/SITE LIGHTING FINAL LOCATIONS, COLOR, MATERIAL AND SPECIFICATIONS. IF THERE ARE ANY DISCREPANCIES BETWEEN
 ARCHITECT'S OR ELECTRICAL ENGINEER'S PLANS AND SPECIFICATIONS AND CIVIL ENGINEER'S PLANS, CONTRACTOR IS REQUIRED TO OBTAIN FROM THE ARCHITECT OR ELECTRICAL ENGINEER AND THE CIVIL ENGINEER WRITTEN APPROVAL FOR ANY DEVIATIONS. STREET/SITE LIGHTING SHALL BE LOCATED TO AVOID CONFLICTS WITH PROPOSED VEGETATION AS OUTLINED WITHIN THE CITY OF NAPLES CODES OF ORDINANCES.
- 33.) THE SITE DESIGN PROVIDES AN ON-SITE TRASH AND RECYCLE AREA FOR SOLID WASTE COLLECTION. TRASH AND RECYCLABLE MATERIALS ARE COLLECTED BY FACILITY STAFF AND PLACED INTO THE APPROPRIATE CONTAINERS WHICH ARE THEN COLLECTED AND DISPOSED OF BY CITY OF NAPLES SOLID WASTE DEPARTMENT. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) TO DORDINATE WITH CITY OF NAPLES SOLID WASTE DEPARTMENT AND/OR WASTE MANAGEMENT FOR DESIRED SOLID WASTE COLLECTION PROGRAM AND FREQUENCY.
- 34.) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE DELIVERY OF ALL OPERATION AND MAINTENANCE MANUALS, AND IF REQUIRED PER THE CONTRACT DOCUMENTS, THE TRAINING OF OPERATION PERSONNEL. THE CONTENT, FORMAT AND DELIVERY OF MANUALS SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONTRACT AND CONSTRUCTION DOCUMENTS, AND TECHNICAL SPECIFICATIONS

UTILITY NOTES:

- 1.) A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE WITH THE PROPERTY OWNER (CITY OF NAPLES PUBLIC LITH ITIES (CNPU)). CITY OF NAPLES ENGINEERING SERVICES, NAPLES AIRPORT AUTHORITY (NAA) AND CITY OF NAPLES FIRE DEPARTMENT (CNFD) PRIOR TO THE START OF UTILITY CONSTRUCTION.
- 2.) ALL MATERIALS AND CONSTRUCTION METHODS USED FOR THE PROPOSED IMPROVEMENTS SHALL CONFORM TO THE APPROVED CONSTRUCTION DOCUMENTS AND TECHNICAL SPECIFICATIONS PROVIDED BY THE THE CIVIL AND GEOTECHNICAL ENGINEERS OF RECORD, ARCHITECT AND UTILITY PROVIDER (CITY OF NAPLES PUBLIC UTILITIES (CNPU), WHICHEVER IS MORE STRINGENT, AND ALL FEDERAL, STATE AND LOCAL REGULATIONS
- 3.) CONTRACTOR SHALL REFERENCE THE CITY OF NAPLES UTILITIES SPECIFICATIONS AND STANDARDS MANUAL (LATEST APPROVED EDITION) FOR DETAILS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL PROPOSED UTILITIES, INCLUDING POTABLE WATER, FIRE, WASTEWATER, ETC. UTILITIES. SPECIFICATIONS SHALL INCLUDE, AND NOT BE LIMITED TO, THE
 - CONNECTION TO CITY OF NAPLES FACILITIES
 COVER FROM FINISHED GRADE
 HDPE AND PVC PIPE COLOR—CODING
 FUSIBLE PVC PIPE

 COUNTY OF THE COLOR—CODING
 FUSIBLE PVC PIPE

 COLOR—CODING
 FUSIBLE PVC PIPE

TESTING AND CLEARANCE PROCEDURES

- . PIPE AND FITTING MATERIALS
- L. PIPE SEPARATION
 M. PIPE LOCATE MATERIALS

. NOTIFICATIONS

- SEPARATION CRITERIA CONFLICT CROSSINGS COMPACTION AND BACKFILL MATERIAL
- APPROVED METER DEVICES AND BACKFLOW ASSEMBLIES
 APPURTENANCES, I.E., FIRE HYDRANTS, VALVES, AIR RELEASE VALVES, CONCRETE COLLARS, ETC.
 ROADWAY CROSSINGS BY OPEN CUT JACK-AND-BORE AND HORIZONTAL DRILLING METHODS
- . LABORATORY TESTING AND SAMPLE COLLECTION 4.) APPROVED FITTINGS SHALL BE USED TO MAINTAIN PLAN ALIGNMENT OF PROPOSED POTABLE WATER, FIRE AND WASTEWATER MAINS. DEVIATION FROM PLAN ALIGNMENT SHALL BE NOT MORE THAN 12±" FROM PLAN CENTERLINE OF MAIN. CONTRACTOR SHALL PREPARE RECORD DRAWINGS OF ALL FITTINGS.
- 5.) CONTRACTOR TO ENSURE MINIMUM AND MAXIMUM COVERS OF ALL PROPOSED MAINS, REGARDLESS OF

INCLUDING METER BOXES, BLOW-OFFS, VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, ETC. T FINISHED GRADE. CONTRACTOR SHALL COORDINATE DURING THE CONSTRUCTION STAKEOUT AND PRIOR

UTILITIES (CNPU)) AND CIVIL ENGINEER REGARDING FINISHED GRADE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE CONSTRUCTION OF SAID APPURTENANCES ARE SET TO FINISHED GRADE. 7.) CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), CITY OF NAPLES ENGINEERING SERVICES, CITY OF NAPLES FIRE DEPARTMENT (CNFD), AND CIVIL ENGINEER BY PROVIDING 72 HOURS NOTICE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES IDENTIFIED IN THE CITY

THE START OF CONSTRUCTION OF SAID APPURTENANCES WITH PROPERTY OWNER (CITY OF NAPLES PUBLIC

- OF NAPLES UTILITIES SPECIFICATIONS AND STANDARDS MANUAL (LATEST APPROVED EDITION). CONSTRUCTION ACTIVITIES SHALL INCLUDE, AND NOT BE LIMITED TO, THE FOLLOWING:
- A. COMMENCEMENT
 B. CONNECTION TO CITY FACILITIES
- HOT-TAPS (TO BE PERFORMED BY CITY OF NAPLES PUBLIC UTILITIES (CNPD)) CORE-BORE TO EXISTING MANHOLES ROADWAY CROSSINGS BY OPEN CUT ROADWAY CROSSINGS BY JACK-AND-BORE OR HORIZONTAL DRILL
- BACKELOW TESTING AND CERTIFICATION
- INSTALLATION OF HIGH-STRENGTH BIAXIAL GEOTEXTILE
 INSTALLATION OF LIMEROCK SUB-BASE OVER PROPOSED GRAVITY SANITARY SEWER LINES ALL TESTING SERVICES, I.E. PRESSURE, FIRE FLOW, INFILTRATION/EXFILTRATION, LAMPING, TELEVISION, LUSHING, DISINFECTION, BACTERIOLOGICAL, ETC.
- PRELIMINARY AND FINAL INSPECTIONS
 OTHER REQUIREMENTS AS SPECIFIED, SUCH AS GEOTECHNICAL AND STRUCTURAL ACTIVITIES M. OTHERS AS MAY BE REQUIRED BY PROPERTY OWNER, CITY OF NAPLES ENGINEERING SERVICES AND
- 8.) ALL CONDUITS UNDER ROADWAYS (FOR FPL, CENTURYLINK, COMCAST, PROPERTY OWNER, ETC.) SHALL BE A MINIMUM OF 18—INCHES UNDER ALL PRESSURIZED MAINS.
- 9.) ALL CONDUITS AND CASINGS SHALL EXTEND 5-FEET BEYOND THE EDGE-OF-PAVEMENT, BACK-OF-CURB OR BACK-OF-SIDEWALK AT EACH END.
- 10.) ALL HORIZONTAL AND VERTICAL CLEARANCES BETWEEN WATER, WASTEWATER, IRRIGATION, AND STORMWATER UTILITIES SHALL BE IN ACCORDANCE WITH THE CITY OF NAPLES UTILITIES SPECIFICATIONS AND STANDARDS
- MANUAL (LATEST APPROVED EDITION) FOR DETAILS AND SPECIFICATIONS, OR FDEP REQUIREMENTS, WHICHEVER IS MORE STRINGENT. CITY OF NAPLES SEPARATION CRITERIA:
- POTABLE WATER PIPELINES SHALL BE SEPARATED FROM WASTEWATER LINES AND /OR STORMWATER LINES BY A MINIMUM CLEAR VERTICAL DISTANCE OF EIGHTEEN INCHES (18") AND A HORIZONTAL DISTANCE OF TEN FEET (10') IN ACCORDANCE WITH F.A.C. 62-555.314(5). THE EIGHTEEN INCHES (18') MINIMUM VERTICAL SEPARATION DISTANCE DOES NOT APPLY TO SEPARATIONS OF SEWER LATERALS AND POTABLE WATER PIPELINE INSTALLATIONS. 57 STONE SHALL BE UTILIZED FOR SEPARATION BETWEEN WASTEWATER LINES AND STORMWATER LINES. NON-POTABLE IRRIGATION WATER PIPELINES 2" AND LARGER SHALL BE SEPARATED FROM POTABLE WATER MAINS. WASTEWATER LINES AND/OR STORMWATER LINES BY A MINIMUM CLEAR VERTICAL DISTANCE OF EIGHTEEN INCHES (18") AND A HORIZONTAL DISTANCE OF FIVE FEET (5') AS SHOWN IN THE UTILITIES DETAIL DRAWINGS. WASTEWATER LINES SHALL BE SEPARATED FROM STORMWATER LINES BY A MINIMUM CLEAR VERTICAL DISTANCE OF EIGHTEEN INCHES (18") AND A HORIZONTAL DISTANCE OF FIVE FEET (5'). WATER MAINS SHALL PREFERABLY PASS ABOVE STORM LINES, WITH AN 18" MINIMUM CLEARANCE, IN WHICH CASE WATER MAIN SHALL BE DR-14 PVC PIPE, EXTENDED A MINIMUM OF 10' EITHER SIDE OF STORM LINE CENTER, OR 15' EACH SIDE OF STORM DRAINAGE STRUCTURE CENTER. ANY WATER MAIN THAT MUST GO UNDER A STORM LINE SHALL BE DUCTILE IRON PIPE CLASS 52 PIPE, EXTENDED A MINIMUM OF 10' TO EACH SIDE OF STORM LINE CENTER, OR 15' TO EACH SIDE OF A STORM DRAINAGE STRUCTURE CENTER. ALL PIPELINE CROSSINGS WITH VERTICAL CLEARANCE LESS THAN EIGHTEEN INCHES (18") SHALL BE MADE USING A FULL 20-FOOT (20') LENGTH OF THICKNESS CLASS 200 AWWA C900 PVC PIPE, CLASS 235 AWWA C905 PVC PIPE, OR, IF NECESSA PRESSURE CLASS 250 DUCTILE IRON PIPE CENTERED ON THE CROSSING. THE SEWER PIPE IN THESE LOCATIONS SHALL BE BACK-FILLED WITH BEDDING STONE OR SAND TO A HEIGHT SIX INCHES (6') ABOVI THE CROWN OF THE PIPE. WHEN THIS STANDARD CANNOT BE MAINTAINED, THE SEWER LINE SHALL BE CONCRETE ENCASED FOR A DISTANCE OF TEN FEET (10') EACH WAY FROM THE WATER LINE AND ANY OTHER CONDUIT. WITH A MINIMUM VERTICAL CLEARANCE OF TWELVE INCHES (12") BEING PROVIDED AT
- SEPARATION MUST BE KEPT (SEE CITY OF NAPLES PUBLIC UTILITY CROSS OVER DETAILS). ALL PIPELINES SHALL BE SUCCESSFULLY PRESSURE TESTED TO 150 PSI AFTER THE CONCRETE HAS PROPERLY CURED CONTRACTOR SHALL ALSO REFERENCE SEPARATION REQUIREMENTS IN SECTION 01045,1,3,F (CITY DAMAGE PREVENTION POLICY - SEPARATION DISTANCE FROM EXISTING CITY UTILITIES), SECTION 02650, 3.2.P (SEPARATION FROM OTHER PIPE SYSTEMS), AND DETAIL DRAWINGS. IF THESE SEPARATION CRITERIA CANNOT BE MET, USE FDEP 62-555.314.

ALL TIMES. IF A WATER LINE IS UNDER A WASTEWATER LINE. AN EIGHTEEN INCH (18") MINIMUM

- POTABLE WATER, NON-POTABLE IRRIGATION WATER, AND WASTEWATER PIPELINES SHALL BE SEPARATED FROM TELEPHONE, POWER, CABLE AND GAS SLEEVES/LINES AND ANY OTHER UNDERGROUND UTILITIES BY A MINIMUM CLEAR VERTICAL DISTANCE OF EIGHTEEN INCHES (18") AND HORIZONTAL DISTANCE OF FIVE
- POTABLE WATER, NON-POTABLE IRRIGATION WATER, AND WASTEWATER LINES SHALL BE SEPARATED FROM RAW WATER MAINS BY A CLEAR VERTICAL DISTANCE OF EIGHTEEN INCHES (18") AND A HORIZONTAL DISTANCE OF TEN FEET (10'). STORMWATER LINES SHALL BE SEPARATED FROM RAW WATER MAINS BY A CLEAR VERTICAL DISTANCE OF EIGHTEEN INCHES (18") AND A HORIZONTAL DISTANCE OF FIVE FEET (5'). WASTEWATER LINES SHALL BE SEPARATED FROM PUBLIC DRINKING WATER SUPPLY WELLS BY A HORIZONTAL DISTANCE OF 100 FEET. WASTEWATER LINES SHALL BE SEPARATED FROM PRIVATE DRINKING WATER SUPPLY WELLS BY A HORIZONTAL DISTANCE OF 75 FEET. CITY APPROVAL WILL BE REQUIRED IF THE SEPARATION
- STORMWATER RETENTION/DETENTION PONDS WITH A BOTTOM ELEVATION LOWER THAN THE WET WEATHER SEASON WATER TABLE SHALL BE LOCATED A MINIMUM OF 300 AWAY FROM RAW WATER WELLS. THE ENCASEMENT OF POTABLE WATER MAINS IN CONCRETE SHALL ONLY BE MADE AFTER REVIEW AND APPROVAL BY THE CITY MANAGER OR DESIGNEE.
- 11.) ALL POTABLE WATER MAINS, WASTEWATER, STORMWATER, AND NON-POTABLE IRRIGATION MAINS SHALL BE
- 12.) HORIZONTAL AND VERTICAL DEFLECTION OF THE PRESSURE MAINS SHALL NOT EXCEED THE PIPE MANUFACTURER'S SPECIFICATIONS. BENDS SHALL BE USED WHERE DEFLECTIONS EXCEED THE MANUFACTURER'S SPECIFICATIONS.
- 13.) ALL POTABLE WATER, FIRE, IRRIGATION AND WASTEWATER UTILITIES AND FACILITIES SHOWN ON THESE CONSTRUCTION DOCUMENTS, INCLUDING METER DEVICES, BACKFLOW ASSEMBLIES AND FIRE HYDRANTS, SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), ITS
- 14.) FIRE HYDRANTS, FIRE LINES AND FIRE DEPARTMENT CONNECTIONS (FDC) SHALL BE INSTALLED IN ACCORDANCE WITH LATEST NFPA 1 REVISION STANDARDS AND CITY OF NAPLES FIRE DEPARTMENT (CNFD) LATEST HYDRANT

SPECIFICATIONS AND INSTALLATION REQUIREMENTS.

APPROVED BY EACH UTILITY PROVIDER,

- 15.) FIRE PROTECTION WATER SUPPLY, INCLUDING FIRE HYDRANTS, SHALL BE INSTALLED AND IN SERVICE PRIOR TO PLACING COMBUSTIBLE BUILDING MATERIALS ON—SITE.
- 16.) FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS (FDC) SHALL BE MARKED IN A UNIFORM MANNER APPROVED BY CITY OF NAPLES FIRE DEPARTMENT (CNFD).
- 17.) FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS (FDC) SHALL NOT BE OBSTRUCTED VISUALLY OR FUNCTIONALLY BY VEGETATION. A CLEARING OF 3-FEET TO EACH SIDE, REAR AND TO THE ROAD OR PARKING
- 18.) ALL SITE LIGHTING, ELECTRICAL, COMMUNICATIONS AND SURVEILLANCE UTILITIES AND FACILITIES SHOWN ON THESE CONSTRUCTION DOCUMENTS SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), ITS SUCCESSORS AND ASSIGNS. THE TRANSFORMER AND ITS OWER SUPPLY SHALL BE OWNED AND MAINTAINED BY FPL.
- 19.) ALL SITE LIGHTING, ELECTRICAL, COMMUNICATIONS AND SURVEILLANCE UTILITIES AND FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ARCHITECT'S OR ARCHITECT'S MEP DETAILS AND TECHNICAL SPECIFICATIONS, INCLUDING, AND NOT LIMITED TO, CONDUITS SIZES, LOCATIONS OF PULL BOXES TO COMPLY WITH MAXIMUM DISTANCE FOR PULLING WIRE, APPURTENANCES, TRENCHING, COMPACTION, BACKFILL, ETC. IF THE PROVIDED TRENCHING, BACKFILL AND COMPACTION SPECIFICATIONS CONFLICT WITH SPECIFICATIONS PROVIDED BY CIVIL AND GEOTECHNICAL ENGINEERS OF RECORD AND UTILITY PROVIDER

(CITY OF NAPLES PUBLIC UTILITIES (CNPU), THE MORE STRINGENT SPECIFICATION SHALL APPLY.

- 20.) CONTRACTOR'S BID PROPOSAL SHALL INCLUDE ALL UTILITY PROVIDER (CABLE, DATA, PHONE AND FLORIDA POWER & LIGHT (FPL)) SERVICE CONNECTION FEES, AND REQUIRED SITE INFRASTRUCTURE AND UTILITIES UNLESS OTHERWISE NOTED.
- 21.) ALL SITE INFRASTRUCTURE AND UTILITIES THAT ARE OWNED AND MAINTAINED BY FLORIDA POWER & LIGHT
- (FPL) SHALL BE INSTALLED BY FPL. 22.) ALL CABLE, DATA AND PHONE SITE INFRASTRUCTURE AND UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE UTILITY PROVIDER'S TECHNICAL SPECIFICATIONS, AND INSTALLED BY A LICENSED CONTRACTOR

COLLIER

EXOTIC REMOVAL AND CLEARING NOTES:

- 1.) ALL PROHIBITED EXOTIC VEGETATION (CATEGORY I AND II EXOTICS AS DEFINED BY THE FLORIDA EXOTIC PEST PLANT COUNCIL (FEPPC)) SHALL BE REMOVED FROM THE SITE. IT SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) TO MAINTAIN THE SITE FREE OF PROHIBITED
- 2.) PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION FENCING (SUCH AS SILT FENCE) BEYOND THE DRIPLINES OF RETAINED VEGETATION ALONG THE LIMITS OF CLEARING. THIS FENCE SHALL REMAIN ERECTED AND MAINTAINED UNTIL COMPLETION OF CONSTRUCTION.
- 3.) WHERE HEAVY CONSTRUCTION ACTIVITIES ARE ADJACENT TO EXISTING NATIVE VEGETATION TO BE RETAINED, THE LIMITS OF CLEARING WILL BE CLEARLY MARKED AND BARRICADED PRIOR TO START OF CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION.
- 4.) CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, AND DEBRIS (INCLUDING EXISTING STRUCTURES) NOT REQUIRED TO REMAIN IN THE PROPOSED CONSTRUCTION AREA. WHERE SO DIRECTED BY THE OWNER, TREES AND VEGETATION WITHIN THE CLEARING LIMITS SHALL BE PROTECTED. LEFT STANDING. AND TRIMMED TO PREVENT DAMAGE TO LIMBS AND ROOTS DURING CONSTRUCTION. CONTRACTOR SHALL VERIFY WITH OWNER PRIOR TO BIDDING AND THE START OF CONSTRUCTION.
- ROADWAY & PARKING LOT SIGNING AND MARKING NOTES: 1.) ROADWAY SIGNAGE AND PAVEMENT MARKINGS MAY BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS.
- 2.) TRAFFIC SIGNAGE AND PAVEMENT MARKINGS AS WELL AS ROADWAY DESIGN IS TO BE IMPLEMENTED IN ACCORDANCE WITH STANDARDS AND SPEED ZONING REQUISITES ADOPTED BY THE STATE IN ACCORDANCE
- 3.) ALL STOP BARS AND PEDESTRIAN CROSSINGS IN ROADWAYS AND PARKING LOTS SHALL BE THERMOPLASTIC.
 ALL OTHER PAVEMENT STRIPING SHALL BE PAINTED, UNLESS OTHERWISE NOTED. IF ASPHALT PAVEMENT OCCURS
 IN TWO LIFTS, FIRST LIFT MAY BE PAINTED AT THE CONTRACTOR'S DISCRETION TO ACHIEVE CERTIFICATE OF OBTAINING SUBSTANTIAL COMPLETION AND ACCEPTANCE FROM THE PROPERTY OWNER (CITY OF NAPLES PUBLIC
- 1.) ALL DISTURBED OR PROPOSED OPEN SPACE, LANDSCAPE AND WATER MANAGEMENT DETENTION AREAS SHALL BE COVERED WITH A SUITABLE GROUND COVER. REFERENCE LANDSCAPE ARCHITECT'S PLANS FOR DESIGN,
- 2.) CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER. REFERENCE SITE DESIGN NOTES ON THIS PAGE FOR SPECIFIC RESTORATION REQUIREMENTS FOR
- 3.) AT A MINIMUM 1-FOOT OF STRIP SOD SHALL BE PLACED ALONGSIDE ALL EDGE-OF-PAVEMENT, BACK-OF-CURB, BACK-OF-SIDEWALK OR BACK-OF-HARDSCAPE, UNLESS OTHERWISE NOTED ON LANDSCAPE ARCHITECT'S PLANS.

SITE DESIGN COORDINATION NOTES:

- 1.) REFERENCE THE ARCHITECT'S, MECHANICAL, ELECTRICAL AND PLUMPING'S (MEP) AND STRUCTURAL ENGINEER'S DESIGN, PLANS, DETAILS, AND SPECIFICATIONS FOR THE FOLLOWING:
 - WEIGH SCALE STRUCTURES, INCLUDING SIGNAL SIGN AND ELECTRICAL SERVICE REQUIREMENTS . DUMPSTER ENCLOSURE STRUCTURES, INCLUDING FINISH, PAINT COLOR, AND GATE/ANCHORING
 - SCREENING FACILITIES FOR AIR CONDENSER LOCATIONS SITE FURNISHING, INCLUDING BIKE RACKS, BENCHES, TRASH RECEPTACLES PROJECT ENTRY AND WAY SIGNS, INCLUDING ELECTRICAL SERVICE REQUIREMENTS
- B. STRUCTURAL ENGINEER'S PLANS:
 1. BUILDING FOUNDATION STRUCTURES, INCLUDING SUPPORT COLUMNS, ETC.
- 2. BUILDING SITE WALL STRUCTURES 3. DUMPSTER ENCLOSURE STRUCTURES 4. WEIGH SCALE STRUCTURES
- C. MECHANICAL, ELECTRICAL AND PLUMPING (MEP) ENGINEER'S PLANS:

 1. AIR CONDENSER LOCATIONS AND ASSOCIATED SERVICE AND CONDENSATE LINES, CONDENSATE DRY 2. TELECOMMUNICATIONS (TELECOM) EQUIPMENT (VAULTS, PULL BOXES, ETC.) AND ASSOCIATED SERVICE
- 3. SURVEILLANCE AND SECURITY EQUIPMENT (MOUNTING POLES, CAMERAS, ETC.) AND ASSOCIATED
- 4. ELECTRICAL AND EMERGENCY EQUIPMENT (TRANSFORMERS, SWITCHGEAR BOXES, PULL BOXES, EMERGENCY GENERATORS, ETC.) AND ASSOCIATED SERVICE LINES, CONDUITS, ETC.
- SITE LIGHTING, INCLUDING FLOOD—LIGHTING/DOWN—LIGHTING/UP—LIGHTING, LIGHT POLES, FIXTURES AND ASSOCIATED SERVICE LINES, ETC.
 PROPANE TANKS, INCLUDING ASSOCIATED METERS AND SERVICE LINES, ETC.
 OIL/SAND SEPARATORS, INCLUDING ASSOCIATED SERVICE LINES AND CLEANOUTS, ETC. 8. GREASE TRAPS, INCLUDING ASSOCIATED SERVICE LINES AND CLEANOUTS, ETC.
 9. FIRE SYSTEM DESIGN, INCLUDING COORDINATION WITH FIRE SPRINKLER CONTRACTOR FOR ITEMS
- 2.) REFERENCE THE FIRE SPRINKLER CONTRACTOR'S AND MEP'S DESIGN, PLANS, DETAILS, AND SPECIFICATIONS FOR
- A. FIRE DEPARTMENT CONNECTION (FDC) B. FIRE LINE CHECK VALVE (CV). POST INDICATOR VALVE (PIV). AND OTHER REQUIRED APPURTENANCES
- C. FIRE SPRINKLER LINE FROM FIRE MAIN TO FIRE DEPARTMENT CONNECTION (FDC) 3.) REFERENCE THE LANDSCAPE ARCHITECT'S DESIGN, PLANS, DETAILS, AND SPECIFICATIONS FOR THE FOLLOWING:
 A. SCHEMATIC LAYOUT OF IRRIGATION MAINS AND APPURTENANCES, ETC.
 B. PLANTER AREAS AND MATERIAL SPECIFICATIONS
 C. GROUND COVER SPECIFICATIONS FOR ALL PROPOSED AND DISTURBED AREAS
-). LITTORAL SHELF PLANTING AREA LOCATIONS AND PLANT MATERIAL SPECIFICATIONS 4.) REFERENCE THE IRRIGATION AND/OR IRRIGATION WELL DRILLER CONTRACTOR'S DESIGN, DETAILS, AND

A. CONSTRUCTION LEVEL PLANS AND SPECIFICATIONS FOR IRRIGATION MAINS, SERVICE LATERALS, CONDUITS,

- METERS, CONTROL VALVES AND APPURTENANCES, ETC., INCLUDING ELECTRICAL SERVICE REQUIREMENTS B. IRRIGATION WELL, WELL CASING, MECHANICAL WELLHEAD ASSEMBLY, SUBMERSIBLE WELL PUMP AND APPURTENANCES, ETC., INCLUDING ELECTRICAL SERVICE REQUIREMENT 5.) REFERENCE GEOTECHNICAL ENGINEER'S DESIGN, PLANS, DETAILS AND SPECIFICATIONS FOR THE FOLLOWING:
- SUBSURFACE AND PHYSICAL CONDITIONS
 SOIL BORING AND TEST PIT LOCATIONS AND FINDINGS RECOMMENDATIONS AND SPECIFICATIONS FOR COMPACTION, INCLUDING IN WET CONDITIONS. ETC.
- 6.) REFERENCE HYDROGEOLOGIST'S DESIGN, PLANS, DETAILS AND SPECIFICATIONS FOR THE FOLLOWING: GROUNDWATER CONDITIONS DEWATERING PLANS
 - SPECIFICATIONS FOR PUMPAGE ALLOCATIONS RECOMMENDATIONS FOR CONSTRUCTION

SITE DESIGN AND CONSTRUCTION NOTES:

OLD CLOSED LANDFILLS AND WASTE DISPOSAL AREA"

NAPLES AIRPORT AUTHORITY (NAA) PRIOR TO CONSTRUCTION.

- 1.) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE FINDINGS OF THE SITE'S SUBSURFACE AND PHYSICAL CONDITIONS PROVIDED WITHIN THE FOLLOWING REPORTS BELOW. COPES OF EACH REPORT WILL BE PART OF THE BID DOCUMENT PACKAGE. ADDITIONAL COPIES MAY BE REQUESTED FROM THE PROPERTY OWNER (CITY OF NAPES
- PUBLIC UTILITIES DEPARTMENT CNPU)):
- 2005 PSI GEOTECHNICAL REPORT 2006 PSI WORK PLAN
 2011 ARDAMAN & ASSOCIATES LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT E. 2011 FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) "GUIDANCE FOR DISTURBANCE AND USE OF
- F. 2012 YPC GEOTECHNICAL REPORT (INCLUDING SUPPLEMENTAL REPORT) 2.) CONTRACTOR'S BID PROPOSAL SHALL INCLUDE SITE MOBILIZATION, ACCESS MANAGEMENT, STAGING AND STOCKPILE AREAS TO ACCOMMODATE CONSTRUCTION. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE AND REVIEW ANY STAGING AND STOCKPILE AREA LOCATIONS WITH THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES
- 3.) DUE TO THE SITE'S CLOSE PROXIMITY TO THE AIRPORT AND ITS ANCILLARY USES, ALL CONSTRUCTION ACTIVITIES (INCLUDING EQUIPMENT) MUST REMAIN BELOW A CEILING ELEVATION OF 59-FEET (FT-NAVD). IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THIS CEILING ELEVATION WITH NAPLES AIRPORT AUTHORITY (NAA) PRIOR TO CONSTRUCTION. IN SITUATIONS WHERE CONSTRUCTION AND/OR EQUIPMENT REACH A TOTAL NOMINAL ELEVATION OF 30-FEET (FT-NAVD), THE PLACEMENT OF AN ORANGE AND WHITE FLAG WILL BE REQUIRED, UNLESS OTHERWISE DIRECTED BY NAA. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE CEILING HEIGHT RESTRICTIONS, FLAGGING, OR OTHER HEIGHT RESTRICTIONS WITH THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) AND

DEPARTMENT (CNPU)) AND THE NAPLES AIRPORT AUTHORITY (NAA) DURING THE BIDDING PHASE OF THE PROJECT AND

- 4.) THE PROPOSED PROJECT IS BEING CONSTRUCTED OVER A CLOSED LANDFILL, WHICH CONTAINS MUNICIPAL SOLID WASTE AND LANDFILL GASES. ALL EXCAVATED MATERIAL SHALL BE SCREENED. RECOVERED SOIL FROM THE SCREENING OPERATION MAY BE UTILIZED FOR STRUCTURAL FILL, PROVIDED THE PROJECT'S GEOTECHNICAL ENGINEER DETERMINES THAT THE SOIL IS SUITABLE FOR FILL MATERIAL. RECOVERED DEBRIS (LANDFILL MATERIAL) FROM THE SCREENING OPERATION SHALL BE BURIED WITHIN THE PROPOSED BERMS, AND A MINIMUM OF 2-FEET OF SOIL CAP SHALL BE PLACED AND STABILIZED OVER EACH AREA CONTAINING DEBRIS AT PROJECT COMPLETION. HOWEVER, SINCE DEBRIS MATERIAL CANNOT REMAIN EXPOSED FOR MORE THAN 1 DAY, IN THE INTERIM THE CONTRACTOR SHALL PLACE A MINIMUM OF 6-INCHES OF SOIL CAP OVER ANY EXPOSED DEBRIS AREA AT THE END OF EACH WORK DAY UNTIL PROJECT COMPLETION.
- IN THE EVENT THAT LARGE DEBRIS (SUCH AS A CAR) IS DISCOVERED DURING THE EXCAVATION OR SCREENING OPERATIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) AND THE PROJECT'S SITE-CIVIL ENGINEER TO REVIEW FEASIBILITY AND SAFETY CONCERNS THAT MAY BE CONSIDERED OR NECESSARY PRIOR TO RELOCATION OR OFFSITE REMOVAL. IT IS NOT ANTICIPATED, BUT IN THE EVENT THAT MUNITIONS OR ASBESTOS MATERIALS ARE DISCOVERED DURING THE EXCAVATION OR SCREENING OPERATIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) AND THE PROJECT'S SITE—CIVIL ENGINEER TO REVIEW FEASIBILITY AND SAFETY CONCERNS THAT MAY BE CONSIDERED OR NECESSARY PRIOR TO RELOCATION OR OFFSITE REMOVAL. THE RELOCATION OR OFFSITE REMOVAL OF DEBRIS MATERIALS DESCRIBED ABOVE SHALL BE PERFORMED BY A CONTRACTOR LICENSED IN HANDLING OF MUNITIONS OR ASBESTOS DEBRIS MATERIALS AND BE MANAGED IN ACCORDANCE WITH ALL LOCAL, STATE (CHAPTER 62-730, F.A.C.) AND FEDERAL GUIDELINES. THE CONTRACTOR MUST NOTIFY THE
- OFFSITE REMOVAL ACTIVITIES. SEE GENERAL NOTE #4 FOR CONTACT INFORMATION. THE RELOCATION OR OFFSITE REMOVAL OF ALL DEBRIS SHALL BE CONDUCTED IN ACCORDANCE WITH FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (FDEP) REGULATIONS, SPECIFICALLY THE DOCUMENT IDENTIFIED AS "GUIDANCE FOR DISTURBANCE OF OLD CLOSED LANDFILLS OF WASTE DISPOSAL AREAS", DATED FEBRUARY 3, 2011. A NOTED ABOVE, THE PROJECT'S SPECIFICATIONS REQUIRE THAT A MINIMUM OF 2-FEET OF SOIL CAP IS PLACED AND STABILIZED OVER EACH AREA CONTAINING DEBRIS. IT SHALL BE UNDERSTOOD BY THE CONTRACTOR, THAT NON-COMPLIANCE WITH THIS MINIMUM COVER SPECIFICATION WILL RESULT IN THE ADDITIONAL EXPENSE INCURRED BY THE CONTRACTOR TO CONDUCT THE REQUIRED SOIL TESTING IN ACCORDANCE WITH FLORIDA DEPARTMENT OF ENVIRONMENTA

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) SOLID & HAZARDOUS WASTE DEPARTMENT PRIOR TO ANY

- PROTECTION'S (FDEP) REGULATIONS AND INSPECTIONS BY FDEP WASTE MANAGEMENT COMPLIANCE STAFF BASED ON THE FINDINGS AND RECOMMENDATIONS OF THE SITE'S SUBSURFACE AND GEOTECHNICAL REPORTS NOTED ABOVE, AND DIRECTION FROM THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), THE MATERIAL ONSITE CAN BE SCREENED AND BE USED FOR STRUCTURAL FILL. BASED ON THIS, THE CONTRACTOR'S BID PROPOSAL SHALL NOT INCLUDE ANY IMPORTATION OF FILL OR THE OFFSITE REMOVAL OF DEBRIS MATERIALS. IN THE EVENT EITHER CASE DOES NOT HOLD TRUE, THE CONTRACTOR SHALL QUANTIFY THE AMOUNT OF FILL REQUIRED AND/OR THE AMOUNT OF DEBRIS MATERIALS TO BE REMOVED OFFSITE, AND COORDINATE WITH THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES
- 5.) ALL DISTURBED AREAS SHALL BE RE-GRADED PER THE GRADING PLANS AND COVERED WITH A MINIMUM OF 2-FEET OF SOIL CAP. SOIL CAP SHALL BE STABILIZED AND COVERED IN ACCORDANCE WITH THE PROJECT'S LANDSCAPE PLAN OR OTHER SUITABLE GROUND COVER, APPROVED BY THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) OF PROJECT'S LANDSCAPE ARCHITECT, AT PROJECT COMPLETION. REFERENCE NOTE #4 ABOVE FOR REQUIREMENTS AND

(CNPU)), AND PROJECT'S SITE-CIVIL AND GEOTECHNICAL ENGINEERS FOR A CONTRACT CHANGE ORDER PRIOR TO

- 6.) CONTRACTOR'S BID PROPOSAL SHALL INCLUDE ALL GEOTECHNICAL SERVICES AS REQUIRED AND OUTLINED WITHIN THE PROJECT'S CONSTRUCTION DOCUMENTS AND TECHNICAL SPECIFICATIONS. GEOTECHNICAL SERVICES MUST BE PERFORMED
- BY A PROFESSIONAL GEOTECHNICAL ENGINEER, LICENSED AND REGISTERED IN THE STATE OF FLORIDA. 7.) BASED ON THE FINDINGS AND RECOMMENDATIONS WITHIN THE SITE'S SUBSURFACE AND GEOTECHNICAL REPORTS PROVIDED TO THE CITY OF NAPLES AND INCLUDED IN THE BID DOCUMENT PACKAGES, THE FOLLOWING ITEMS BELOW SHALL BE CONSIDERED AND INCLUDED IN THE CONTRACTOR'S BID PROPOSAL AND IMPLEMENTED DURING THE COURSE OF
 - A. AS NOTED IN THE 2005 PSI GEOTECHNICAL. THE EARTHWORK AND VOLUME CALCULATIONS ASSUME THAT THE AVERAGE THICKNESS OF DEBRIS IS APPROXIMATELY 9.8-FEET. HOWEVER, THE EARTHWORK AND VOLUM CALCULATIONS DUE TAKE INTO CONSIDERATION THE DEPTH (THICKNESS) OBSERVED FOR THE SOIL BORINGS
- B. EXCAVATED DEBRIS VOLUME CONSISTS OF APPROXIMATELY 69% SOIL AND 31% MUNICIPAL SOLID WASTE. IN ORDER TO ACCOMMODATE FOR THE CAP SOIL VOLUME OVER THE DEBRIS AREAS, WHICH VARIES IN DEPTH, IT HAS BEEN ASSUMED THAT THE PERCENTAGE OF SOIL THAT CAN BE RETAINED AND UTILIZED FOR STRUCTURAL FILL IS
- C. IN ORDER TO MEET OR EXCEED THE MINIMUM COMPACTION REQUIREMENTS FOR THE PROJECT, DENSITY AND COMPACTION TESTING SHALL BE PERFORMED BY THE PROJECT'S GEOTECHNICAL ENGINEER FOR THE FOLLOWING: ALL BUILDING FOUNDATION OR OTHER STRUCTURES IN ACCORDANCE WITH THE PROJECT'S SITE—CIVIL, GEOTECHNICAL OR ARCHITECT'S STRUCTURAL ENGINEER'S OR ARCHITECT'S SPECIFICATIONS, WHICHEVER
- 2. ALL VEHICULAR USE, STAGING AND LAYDOWN AREAS IN ACCORDANCE WITH THE MINIMUM GUIDELINES PROVIDED WITHIN THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR PROJECT'S GEOTECHNICAL AND SITE—CIVII
- NGINEER'S SPECIFICATIONS, WHICHEVER IS MORE STRINGENT 3. ALL OPEN SPACE, BERM AND WATER MANAGEMENT DETENTION AREAS IN ACCORDANCE WITH THE PROJECT'S SITE-CIVIL OR GEOTECHNICAL ENGINEER'S SPECIFICATIONS, WHICHEVER IS MORE STRINGENT
- C. ALL TESTING RESULTS SHALL BE PROVIDED TO THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)), AND PROJECT'S ARCHITECT, GEOTECHNICAL AND SITE-CIVIL ENGINEERS.
- D. EXCAVATION, GEOTEXTILE AND FILL PLACEMENT SHALL CONSIST OF THE FOLLOWING AREAS (REFERENCE GRADING PLANS AND SECTION DETAILS FOR BOUNDARY LIMITS AND DEPTH OF EXCAVATION): 1. UNDER THE ADMINISTRATION/SORTING/STORAGE BUILDING FOUNDATION STRUCTURE:
 AREA AND DEBRIS VOLUME WILL BE EXCAVATED AT A DEPTH OF 15-FEET UNDERNEATH THE BUILDING FOUNDATION (KNOWN AS UNDERCUT), FOLLOWED BY THE PLACEMENT OF ONSITE SCREENED MATERIAL SUITED FOR STRUCTURAL FILL. A IMPERMEABLE GEOTEXTILE WILL BE INSTALLED A MINIMUM OF 12-INCHES ABOVE THE BOTTOM OF THE 15-FEET UNDERCUT FOR THE BUILDING FOUNDATION STRUCTURE. EXCAVATION
- OF 15-FEET OUTSIDE THE BUILDING FOUNDATION STRUCTURE. 2. UNDER THE FUTURE WASH-DOWN BUILDING FOUNDATION STRUCTURE AREA AND DEBRIS VOLUME WILL BE EXCAVATED AT A DEPTH OF 4-FFFT UNDERNEATH THE FUTURE BUILDING FOUNDATION (KNOWN AS UNDERCUT), FOLLOWED BY THE PLACEMENT OF ONSITE SCREENED MATERIAL SUITED FOR STRUCTURAL FILL. A HIGH-STRENGTH BIAXIAL GEOTEXTILE WILL BE NSTALLED HALF WAY BETWEEN THE 4-FOOT UNDERCUT SECTION AND EXTEND A MINIMUM OF 12-INCHES BEYOND THE FUTURE FOUNDATION STRUCTURE EXCAVATION OPERATION SHALL EXTEND TO A

RATION AND GEOTEXTILE INSTALLATION SHALL EXTEND TO A LATERAL DISTANCE OF A MINIMUM

LATERAL DISTANCE OF A MINIMUM OF 4-FEET OUTSIDE THE FUTURE FOUNDATION STRUCTURE 3. UNDER VEHICULAR USE AND PARKING AISLE/STALL AREAS:
AREA AND DEBRIS VOLUME WILL BE EXCAVATED AT A DEPTH OF 4—FEET UNDERNEATH THE DESIGNED STRUCTURAL SECTION (KNOWN AS UNDERCUT), FOLLOWED BY THE PLACEMENT OF ONSITE SCREENED MATERIAL SUITED FOR`STRUCTURAL FILL. A HIGH—STRENGTH BIAXIAL GEOTEXTILE WILL BE INSTALLED HALF WAY BETWEEN THE 4-FOOT UNDERCUT SECTION AND EXTEND A MINIMUM OF 12-INCH BEYOND THE EDGE-OF-PAVEMENT OR BACK-OF-CURB. EXCAVATION OPERATION SHALL EXTEND TO A

LATERAL DISTANCE OF A MINIMUM OF 4-FEET OUTSIDE THE VEHICULAR USE AND PARKING AISLE/STALL

- 4. UNDER VEHICULAR STAGING AND LAYDOWN AREAS: AREA AND DEBRIS VOLUME WILL BE EXCAVATED AT A DEPTH OF 2—FEET UNDERNEATH THE DESIGNED STRUCTURAL SECTION (KNOWN AS UNDERCUT), FOLLOWED BY THE PLACEMENT OF ONSITE SCREENED MATERIAL SUITED FOR STRUCTURAL FILL. EXCAVATION OPERATION SHALL EXTEND TO LATERAL DISTANCE OF A MINIMUM OF 2—FEET OUTSIDE THE VEHICULAR STAGING AND LAYDOWN AREAS.
- 5. UNDER WATER MANAGEMENT DRY PRE-TREATMENT DETENTION AREAS AREA AND DEBRIS VOLUME WILL BE EXCAVATED AT A DEPTH OF 2-FEET UNDERNEATH THE DESIGNED FINISHED GRADE (KNOWN AS UNDERCUT), FOLLOWED BY PLACEMENT OF ONSITE
- SCREENED MATERIAL SUITED FOR STRUCTURAL FILL NOTE: IT IS RECOMMENDED THAT RESULTING EXCAVATION (FOR UNDERCUT) SHOULD BE PROOF-ROLLED WITH A HEAVY VIBRATORY ROLLER, WITH AT LEAST FOUR ROLLER PASSES IN EACH DIRECTION
- 8.) THE IMPERMEABLE GEOTEXTILE NOTED UNDER 7.D.1 ABOVE SHALL BE DURA-SKRIM MODEL No. R12WBK OR APPROVED EQUAL (WHICH WILL ALSO SERVE AS A VABOR BARRIER), INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REFERENCE THE MANUFACTURER'S SPECIFICATIONS INSTALLATION SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO, REQUIRED SEALING OF THE SEAMS, MATERIAL OVERLAP (MINIMUM OF 24-INCHES), AND PROTECTION OF MATERIAL DURING THE COURSE OF CONSTRUCTION, ALTERNATE GEOTEXTILES MAY BE CONSIDERED BY THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) OR PROJECT'S SITE—CIVIL ENGINEER DURING THE BIDDING PROCESS PROVIDED THE PROJECT'S GEOTECHNICAL ENGINEER CAN PROVIDE DETAIL SPECIFICATIONS THAT THE ALTERNATE MATERIAL IS AN APPROVED EQUAL.

USING A 10-TON OR HEAVIER VIBRATORY ROLLER.

- 9.) THE HIGH-STRENGTH BIAXIAL GEOTEXTILE NOTED UNDER 7.D.2 AND 7.D.3 ABOVE SHALL BE TENSAR MODEL No. TX160S OR APPROVED EQUAL, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REFERENCE THE MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO, REQUIRED EXTENSION BEYOND EDGE—OF—PAVEMENT (MINIMUM OF 12—INCHES), MATERIAL OVERLAP (MINIMUM OF 18-INCHES), AND PROTECTION OF MATERIAL DURING THE COURSE OF CONSTRUCTION. ALTERNATE GEOTEXTILES MAY BE CONSIDERED BY THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) OR PROJECT'S SITE—CIVIL ENGINEER DURING THE BIDDING PROCESS PROVIDED THE PROJECT'S GEOTECHNICAL ENGINEER CAN PROVIDE DETAIL SPECIFICATIONS THAT THE ALTERNATE MATERIAL IS AN APPROVED EQUAL.
- 10.) THE BACKFILL OPERATION SHALL BE PERFORMED IN DRY CONDITIONS NO DEWATERING ANTICIPATED). STRUCTURAL FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12-INCHES AND SHALL BE COMPACTED TO ACHIEVE THE MINIMUM DENSITIES PROVIDED WITHIN THE SPECIFICATION'S REFERENCES NOTED ABOVE. DENSITIES SHALL BE PERFORMED IN EACH
- 11.) IN THE EVENT THE CONTRACTOR ENCOUNTERS WET CONDITIONS DURING THE EXCAVATION OPERATION. THE CONTRACTOR SHALL DEWATER THE SITE IN ACCORDANCE WITH THE SFWMD PERMIT CONDITIONS PRIOR TO PLACEMENT OF STRUCTURA FILL, IF COMPACTION CANNOT BE ACHIEVED IN ACCORDANCE WITH THE SPECIFICATIONS, THE CONTRACTOR SHALL UTILIZI OTHER SUITABLE BACKFILL MATERIAL, SUCH AS CRUSHED ROCK, LIMESTONE, ETC., TO OBTAIN REQUIRED COMPACTION. I WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) AND THE PROJECT'S GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF SUITABLE MATERIAL.

SITE DESIGN AND CONSTRUCTION NOTES (CONTINUED):

- 12.) STRUCTURE (BUILDING) FOUNDATION AND ROADWAY COMPACTION REQUIREMENTS AND INSTALLATION NOTES:
- A. FILL (PER AASHTO M-145) FOR BUILDING FOUNDATION STRUCTURES SHALL BE COMPACTED IN 12-INCH LIFTS TO 98% OF MAXIMUM DENSITY, IN ACCORDANCE AASHTO T-180 AND THE PROJECT'S SITE-CIVIL AND GEOTECHNICAL ENGINEER'S TECHNICAL SPECIFICATIONS, WHICHEVER IS MORE STRINGENT
- B. FILL (PER AASHTO M-145) <u>FOR ROADWAYS AND UTILITY TRENCHES UNDER ROADWAYS</u> SHALL BE COMPACTED IN 12-INCH LIFTS TO 98% OF MAXIMUM DENSITY, IN ACCORDANCE WITH AASHTO T-180 AND THE PROJECT'S SITE—CIVIL ENGINEER'S TECHNICAL SPECIFICATIONS
- C. FILL (PER AASHTO M-145) <u>FOR UTILITY TRENCHES NOT UNDER ROADWAYS AND ALL OTHER AREAS</u> SHALL BE COMPACTED IN 12-INCH LIFTS TO 95% OF MAXIMUM DENSITY, IN ACCORDANCE WITH AASHTO T-180 AND THE PROJECT'S SITE-CIVIL ENGINEER'S TECHNICAL SPECIFICATIONS
- D. STABILIZED SUBGRADE SHALL EXTEND 1-FOOT BEYOND EDGE-OF-PAVEMENT OR BACK-OF-CURB ON ALL TYPICAL ROADWAY SECTIONS. SEE SECTION DETAILS
- E. STABILIZED SUBGRADE SHALL BE COMPACTED IN 12-INCH LIFTS TO 98% OF MAXIMUM DENSITY, IN ACCORDANCE WITH AASHTO T-180 AND THE PROJECT'S SITE-CIVIL ENGINEER'S TECHNICAL SPECIFICATIONS
- F. LIMEROCK BASE SUBGRADE SHALL EXTEND 6-INCHES BEYOND EDGE-OF-PAVEMENT OR UP TO FACE OF BACK-OF-CURB ON ALL TYPICAL ROADWAY SECTIONS. SEE SECTION DETAILS
- G. LIMEROCK BASE SUBGRADE SHALL BE COMPACTED IN 6-INCH LIFTS TO 98% OF MAXIMUM DENSITY, IN ACCORDANCE WITH AASHTO T-180 AND THE PROJECT'S SITE-CIVIL ENGINEER'S TECHNICAL SPECIFICATIONS 13.) POTABLE WATER, FIRE AND WASTEWATER UTILITY TRENCH COMPACTION REQUIREMENTS AND INSTALLATION NOTES:
- A. REFERENCE CITY OF NAPLES UTILITIES SPECIFICATIONS AND STANDARDS MANUAL (LATEST APPROVED EDITION) 14.) STORM WATER AND IRRIGATION UTILITY TRENCHES, OPEN SPACE AND WATER MANAGEMENT DETENTION AREA COMPACTION REQUIREMENTS, AND INSTALLATION NOTES:
 - A. REFERENCE TECHNICAL SPECIFICATIONS PROVIDED BY THE PROJECT'S SITE-CIVIL AND GEOTECHNICAL ENGINEER'S, UTILITY PROVIDER (CITY OF NAPLES PUBLIC UTILITIES (CNPU)) OR FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS

<u>SUBSTANTIAL COMPLETION AND FINAL ACCEPTANCE NOTES:</u>

THE FOLLOWING ACTIVITIES IDENTIFIED BELOW SHALL BE REQUIRED TO ACHIEVE SUBSTANTIAL COMPLETION AND FINAL ACCEPTANCE FROM THE PROPERTY OWNER (CITY OF NAPLES PUBLIC UTILITIES (CNUD)). ALL ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONTRACT AND CONSTRUCTION DOCUMENTS, AND TECHNICAL SPECIFICATIONS PROVIDED BY THE CIVIL AND GEOTECHNICAL ENGINEERS OF RECORD AND CITY OF NAPLES UTILITIES SPECIFICATIONS AND STANDARDS MANUAL (LATEST APPROVED EDITION), WHICHEVER IS MORE STRINGENT PLEASE NOTE, NOT ALL ITEMS LISTED BELOW MAY BE APPLICABLE, AND IT IS THE RESPONSIBILITY OF CONTRACTOR TO COMPLETE THE REQUIRED ITEMS BASED ON THE IMPROVEMENTS THAT ARE PROPOSED. THE CONTRACTOR AND PROJECT'S PROFESSIONAL GEOTECHNICAL ENGINEER AND LAND SURVEYOR, LICENSED AND REGISTERED IN THE STATE OF FLORIDA, SHALL PROVIDE THE FOLLOWING REQUIRED ITEMS TO THE PROPERTY OWNER, ARCHITECT AND CIVIL ENGINEER OF RECORD:

- 1. COMPACTED FILL (FOR BUILDING STRUCTURE FOUNDATIONS, CURBING, PIPE BEDDING, BACKFILL, ETC.)
- 2. STABILIZED SUBGRADE (EVERY 300 LF FOR ROADS OR EVERY 1,000 SY OR FRACTION THEREOF FOR PARKING LOTS AND DRIVE/ACCESS AISLES)
- 3. LIMEROCK BASE (EVERY 300 LF FOR ROADS OR EVERY 1,000 SY OR FRACTION THEREOF FOR ARKING LOTS AND DRIVE/ACCESS AISLES) 4. UTILITY TRENCH
- 4.1. WATER/FIRE/FORCE MAINS (EVERY 200 LF, AND/OR EVERY CHANGE IN DIRECTION) 4.2. STORM WATER PIPES (ONE TEST AT EACH INLET CONNECTION AND EVERY 100 LF THEREAFTER) 4.3. GRAVITY WASTEWATER MAINS (ONE TEST AT EACH MANHOLE CONNECTION AND EVERY 100 LF HEREAFTER OR AT CENTER OF PIPE IF RUN IS LESS THAN 100 L
- 5. OTHER ITEMS AS SPECIFIED WITHIN THESE CONSTRUCTION DOCUMENTS OR PROJECT'S TECHNICAL B. CORE SAMPLES (EVERY 300 LF FOR ROADS OR EVERY 1,000 SY OR FRACTION THEREOF FOR PARKING
- LMEROCK BASE ASPHALT BACTERIOLOGICAL BACKFLOW AND RPZ ASSEMBLIES FT STATION START-UP

LOTS AND ACCESS AISLES)

- LIFT STATION ELECTRICAL SERVICE WIRING AND VOLTAGE DROP G. SANITARY SEWER TV/VIDEOS (IN DVD FORMAT)
- 2.) AGENCY APPROVALS OR SIGN-OFFS:
- A. CITY OF NAPLES FIRE DEPARTMENT (CNFD)
 1. UNDERGROUND FIRE PROTECTION LINES AND ASSOCIATED APPURTENANCES
 2. FIRE HYDRANT AND THRUST BLOCK INSPECTIONS
- B. NAPLES AIRPORT AUTHORITY (NAA)
 1. ITEMS REQUESTED AT PRE-CONSTRUCTION MEETING C. FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) (INCLUDING WATER/SEWER AND SOLID
- ITEMS NOTED WITHIN THE PERMIT APPROVAL AND REQUESTED AT PRE-CONSTRUCTION MEETING D. SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD)
- TIEMS NOTED WITHIN THE PERMIT APPROVAL AND REQUESTED AT PRE-CONSTRUCTION MEETING
 BENCHMARK ON CONTROL STRUCTURE TO INCLUDE PK NAIL & DISC WITH ELEVATION, SET BY CONTRACTOR'S PROFESSIONAL LAND SURVEYOR, LICENSED AND REGISTERED IN THE STATE OF

STUB-OUTS

CONTRACTOR SHALL PROVIDE A FINAL SET OF RECORD DRAWINGS TO CIVIL ENGINEER OF RECORD. RETRIEVAL OF RECORD INFORMATION SHALL BE CONDUCTED, VERIFIED AND CERTIFIED BY A PROFESSIONAL LAND SURVEYOR, LICENSED AND REGISTERED IN THE STATE OF FLORIDA. AND ACCURATELY SHOW ALL ABOVE—GROUND HORIZONTA

- OCATIONS, AND BELOW-GROUND HORIZONTAL AND VERTICAL LOCATIONS AT AREAS EXPOSED OR MARKED BY THE TILITY CONTRACTOR. RECORD DRAWINGS PROVIDED BY THE CONTRACTOR SHALL INCLUDE, AND NOT BE LIMITED
- A. POTABLE WATER, FIRE AND WASTEWATER: 1. LOCATIONS AND ELEVATIONS OF ALL PRESSURE PIPE LINES AT EVERY 200 LF ALONG PIPE LINE AND AT EACH PIPE ELBOW AND FITTING LOCATION
- 2. LOCATIONS OF ALL METER AND VALVE BOXES, AIR RELEASE VALVES , BLOW-OFFS, FIRE HYDRANTS AND BACTERIAL SAMPLE POINTS, ETC
 3. INVERTS, RIM ELEVATIONS AND LOCATIONS FOR ALL LIFT STATIONS
- LOCATIONS FOR ALL LIFT STATION ELECTRICAL CONTROL PANELS AND TRANSFORMERS INVERTS, PIPE SLOPES, RIM ELEVATIONS, RUN LENGTHS AND LOCATIONS FOR ALL MANHOLES INVERTS (AT BOTH ENDS), PIPE SLOPES, RUN LENGTHS AND LOCATIONS FOR ALL SEWER MAIN
- 7. LOCATIONS OF SEWER LATERALS 8. INVERTS AND LOCATIONS FOR ALL CLEANOUTS 3. PAVING, DRAINAGE AND WATER MANAGEMENT:
- 1. ROADWAY CENTERLINE ELEVATIONS AT ALL INTERSECTIONS AND AT A MINIMUM AT ALL POINTS OF VERTICAL INTERSECTION (PVI'S) ALONG THE ROADWAY CENTERLINE
- 2. INVERT, GRATE AND INLET ELEVATIONS OF ALL WATER MANAGEMENT STRUCTURES (CONTROL STRUCTURES, CATCH BASINS, JUNCTION BOXES, HEADWALLS, MITERED/FLARED ENDS, ETC.) NOTE: GRATE/TOP, SIDE-INLET, WEIR AND BLEED-DOWN DIMENSIONS AND ELEVATIONS SHALL BE PROVIDED FOR ALL STRUCTURES

 3. HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS OF TOP-OF-BANK AND LAKE BOTTOM, BASED ON LAKE CROSS-SECTIONS AT 100' INTERVALS FOR LAKES UNDER 5 ACRES AND 300' INTERVALS FOR
- LAKES 5 ACRES OR MORE

 4. HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS OF TOP-OF-BANK AND TOE-OF-SLOPE FOR ALL DRY DETENTION AREAS. NUMBER OF HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS WILL VARY DEPENDING ON SIZE AND CONFIGURATION OF EACH AREA, BUT MUST ADEQUATELY DEPICT CONFIGURATION TO CALCULATE AND CONFIRM PROVIDED TREATMENT VOLUMES, AS REQUIRED BY THE
- 5. HORIZONTAL LOCATIONS AND VERTICAL ELEVATIONS OF TOP-OF-BANK AND CENTERLINE AT 50' INTERVALS FOR ALL OPEN SWALES AND DRAINAGE DITCHES
- C. OTHER ITEMS AS SPECIFIED WITHIN THESE CONSTRUCTION DOCUMENTS OR PROJECT'S TECHNICAL NOTE: NOT ALL ITEMS ARE APPLICABLE TO FOR THIS PROJECT'S CONSTRUCTION DOCUMENTS AND TECHNICAL SPECIFICATIONS, AND THE CONTRACTOR SHALL COORDINATE WITH CIVIL ENGINEER FOR FINAL VERIFICATION CONTRACTOR SHALL ALSO COORDINATE AND VERIFY PROCEDURES IN ACCOMMODATING REQUIRED RECORD
- DRAWING INFORMATION WITH CIVIL ENGINEER AND SURVEYOR PRIOR TO THE START OF CONSTRUCTION. UTILITY PROVIDER (CABLE, DATA, PHONE AND FPL) SERVICE CONNECTIONS/AGREEMENT:
- THAT ALL SERVICE AGREEMENT REQUIREMENTS BETWEEN THE PROPERTY OWNER AND UTILITY PROVIDER ARE COMPLETED, PRIOR TO ACHIEVING FINAL ACCEPTANCE OF THE FACILITY FROM THE PROPERTY OWNER. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PROVIDING THE FOLLOWING ITEMS:

4.) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THAT ALL SERVICE CONNECTION FEES ARE PAID AND

B. LEGAL SKETCH AND DESCRIPTION OF EACH UTILITY PROVIDER'S UTILITY EASEMENT, PREPARED BY A DNAL LAND SURVEYOR, LICENSED AND REGISTERED IN THE STATE OF FLORIDA

A. COORDINATION WITH UTILITY PROVIDER FOR ESTABLISHMENT OF PERMANENT SERVICE

- C. COORDINATION WITH THE PROPERTY OWNER OR PROPERTY OWNER'S ATTORNEY FOR THE RECORDING OF EASEMENTS WITH COUNTY/CITY PUBLIC RECORDS DEPARTMENT D. OTHER ITEMS AS SPECIFIED WITH THE SERVICE AGREEMENT
- 5.) DELIVERY OF ALL OPERATION AND MAINTENANCE MAINTENANCE MANUALS

6.) TRAINING OF OPERATION PERSONNEL, IF REQUIRED

BIDDING PLANS ONLY NOT FOR CONSTRUCTION PERMITTING PROCESS

INCOMPLETE

GENERAL, UTILITY, SITE DESIGN AND COORDINATION NOTES

215610640c-003gi

PRELIMINARY

WilsonMiller S Stantec UE DESCRIPTION EAD DESIGNER: CMW\89458 REV NO. | REVISION DESCRIPTION EAD TECHNICIAN: CMW\89458 REV. DATE | DRAWN BY / EMP. NO. SEC-TWP-RGE

3200 Bailey Lane, Suite 200 Naples, FL 34105-8507 **800.643.4336** • 239.649.4040 • F 239.643.5716 Certificate of Authorization #43 • FL Lic. # LC-C000170 • www.stantec.com

CITY OF NAPLES RECYCLE TRANSFER FACILITY

CITY OF NAPLES

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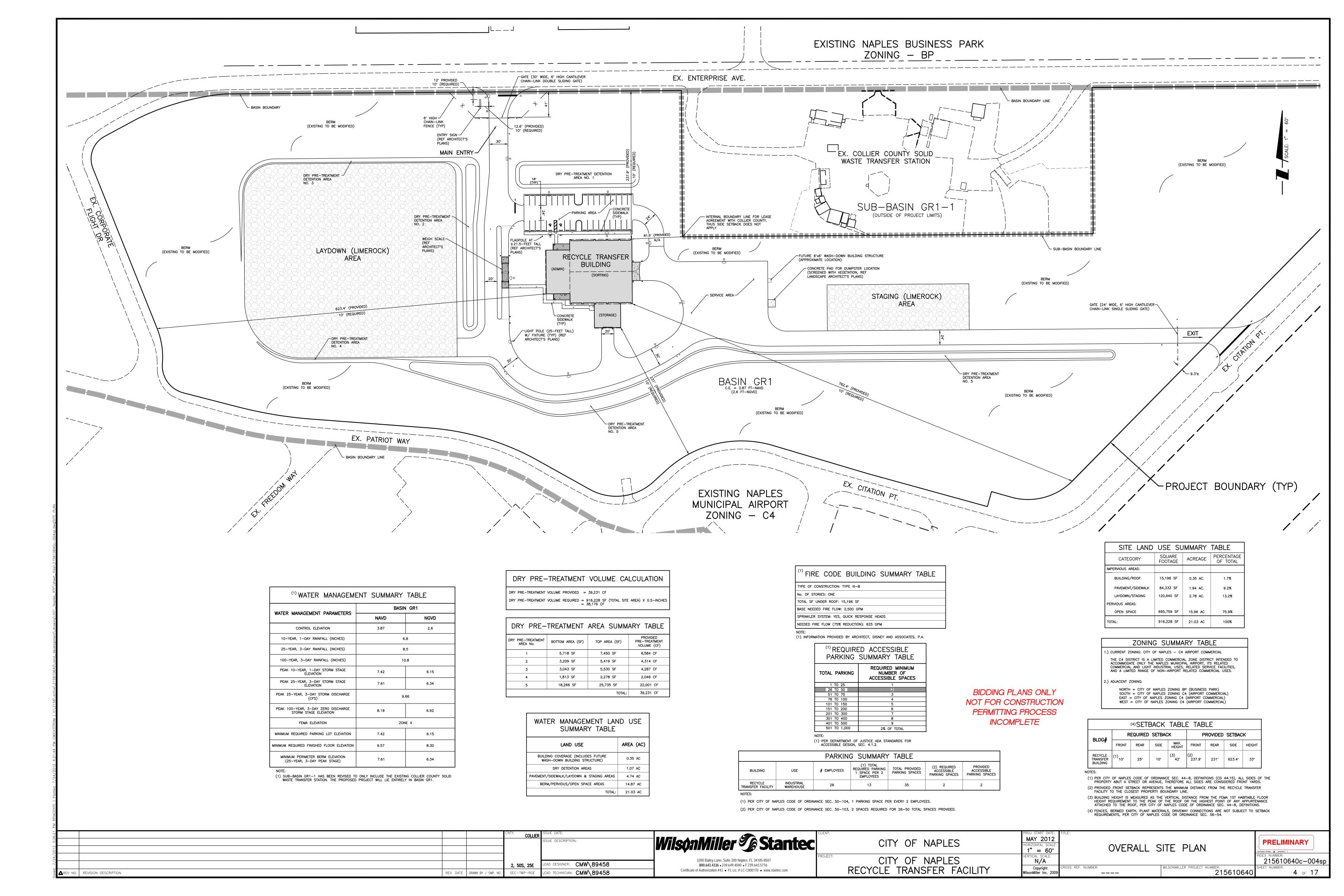
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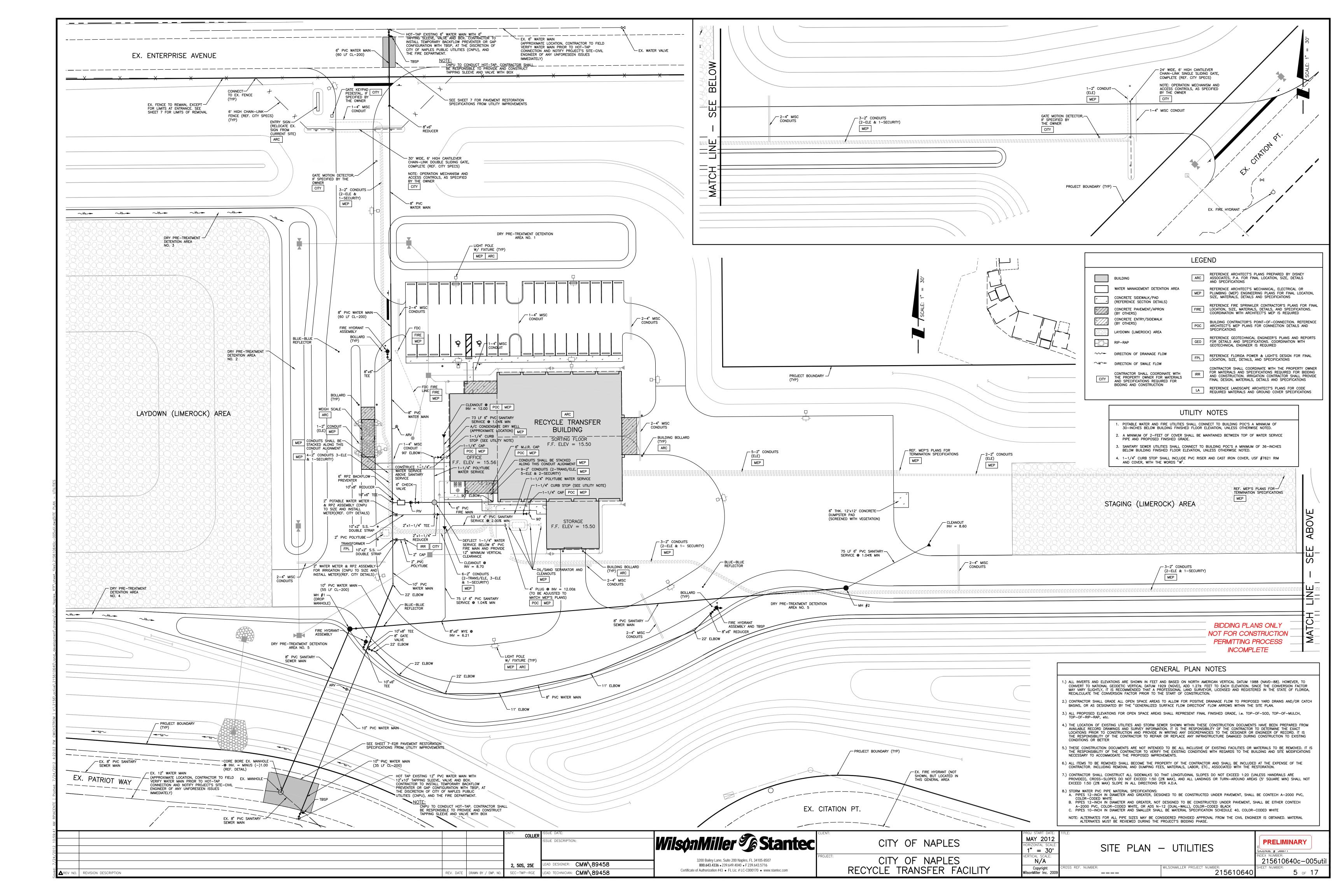
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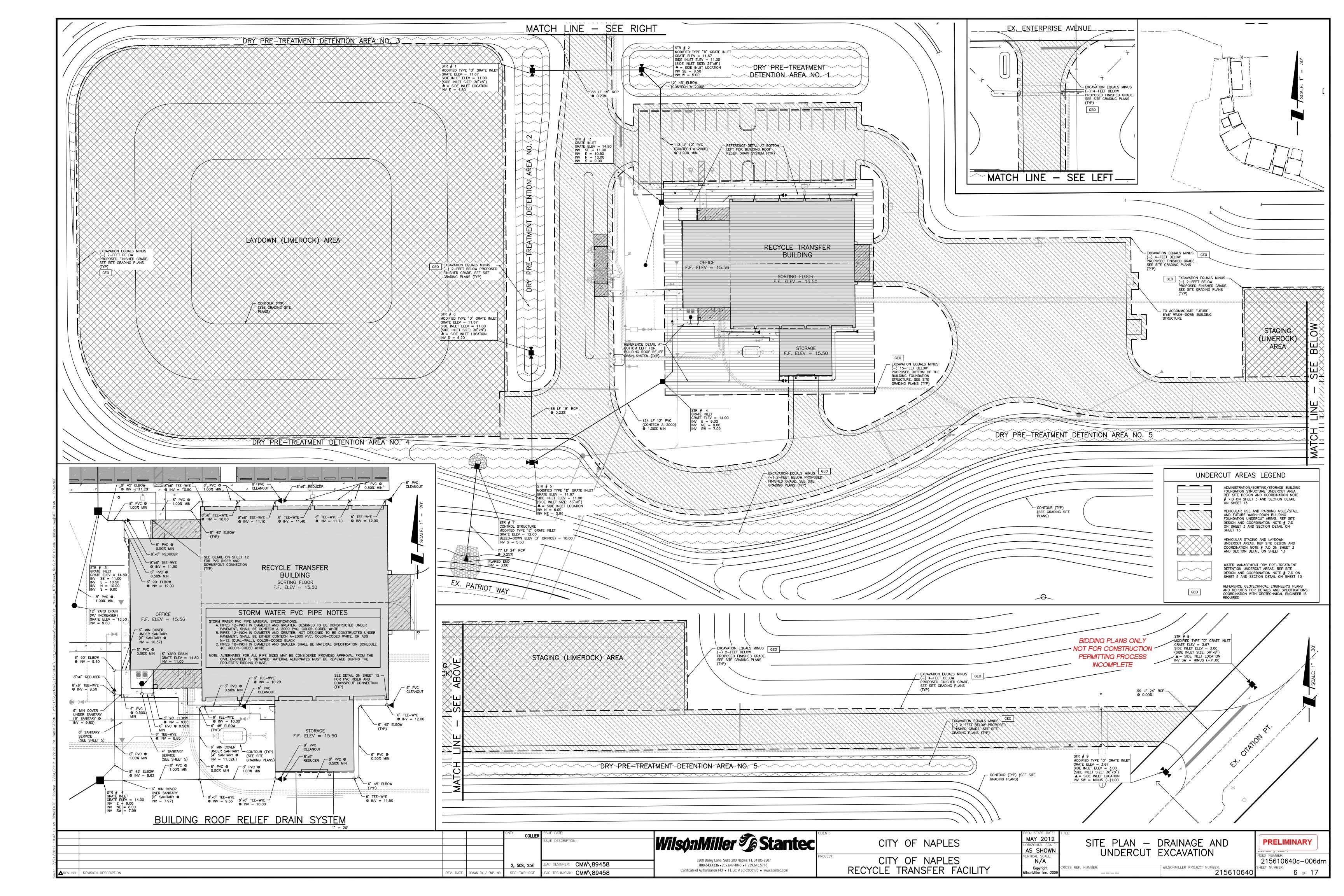
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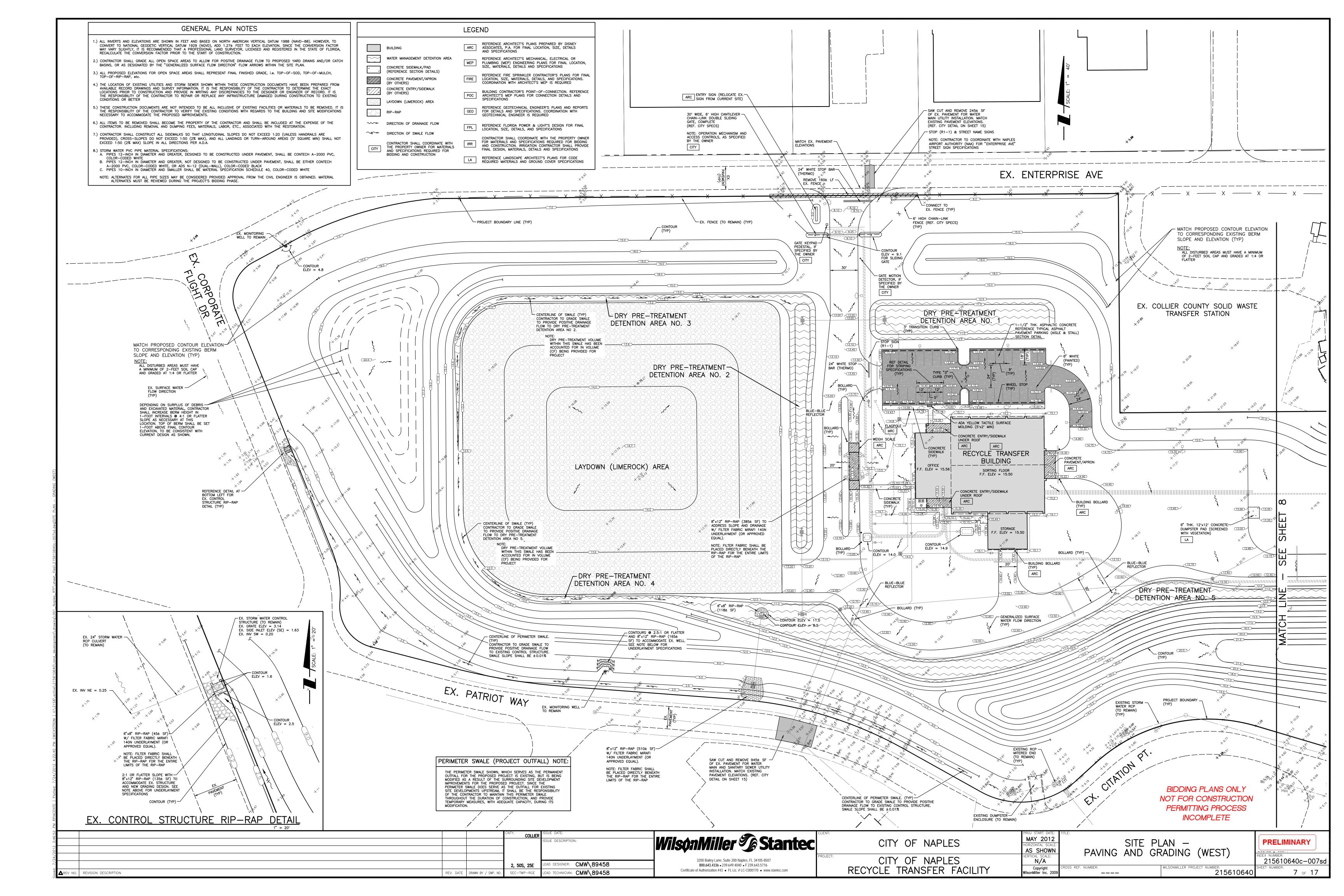
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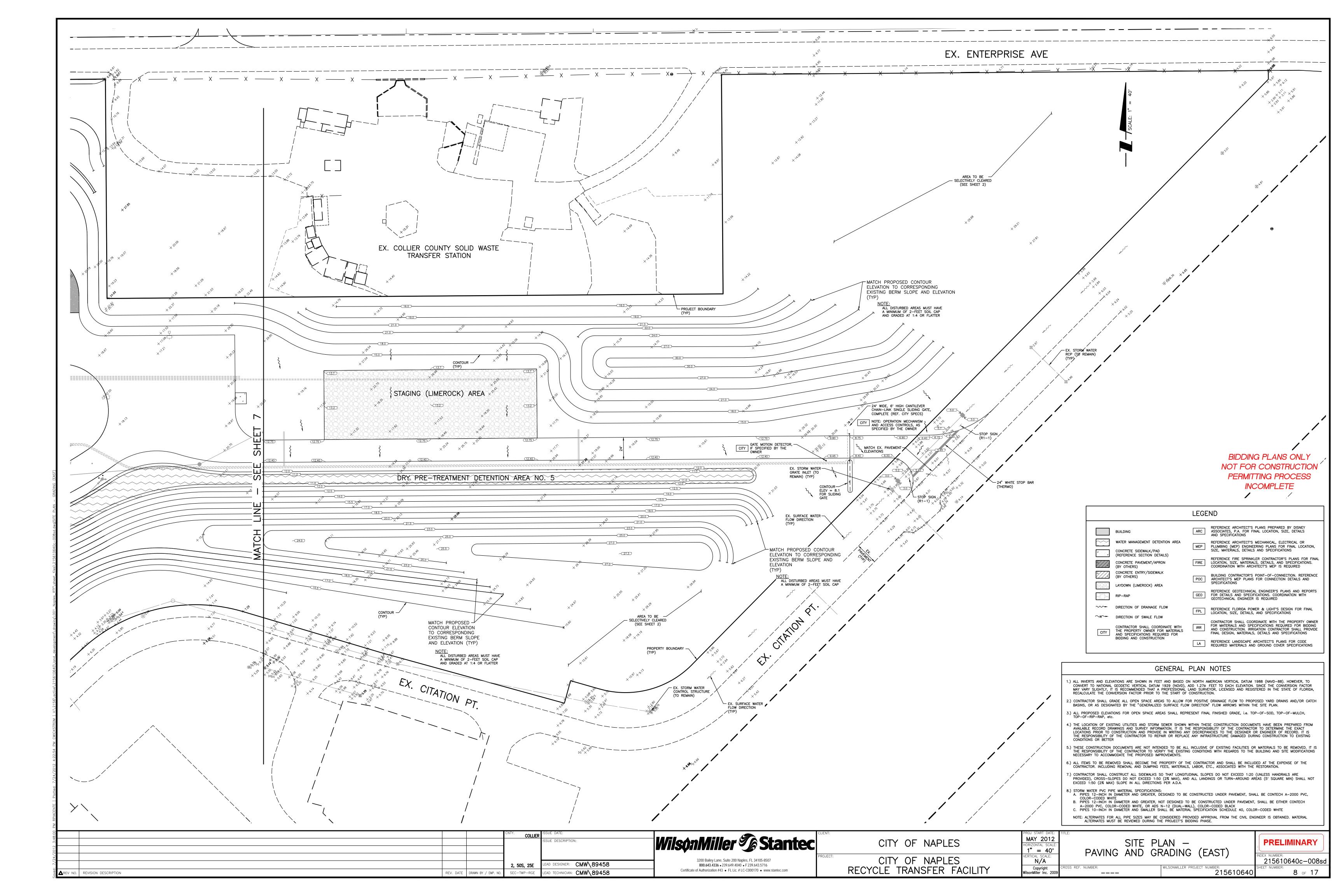
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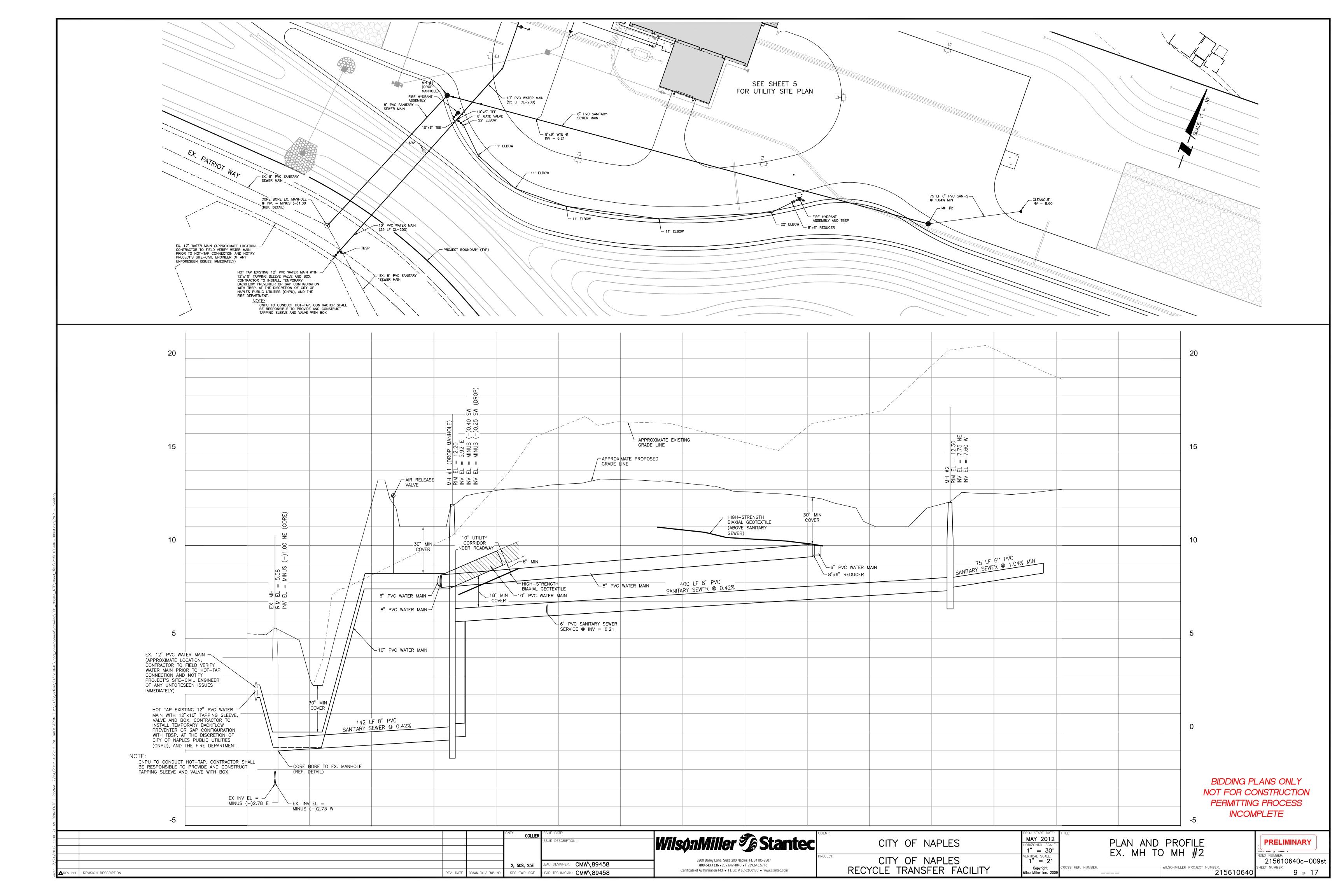


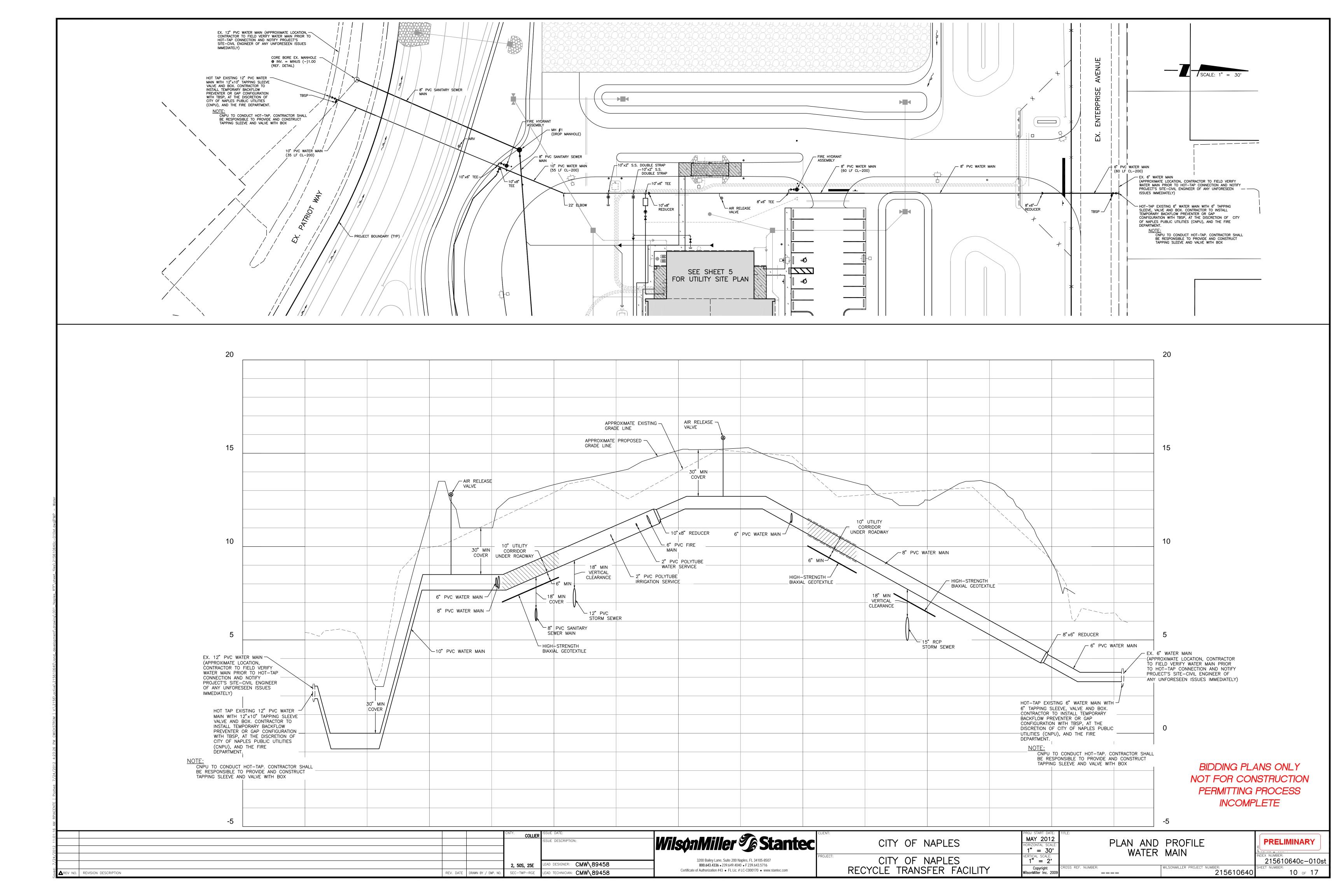


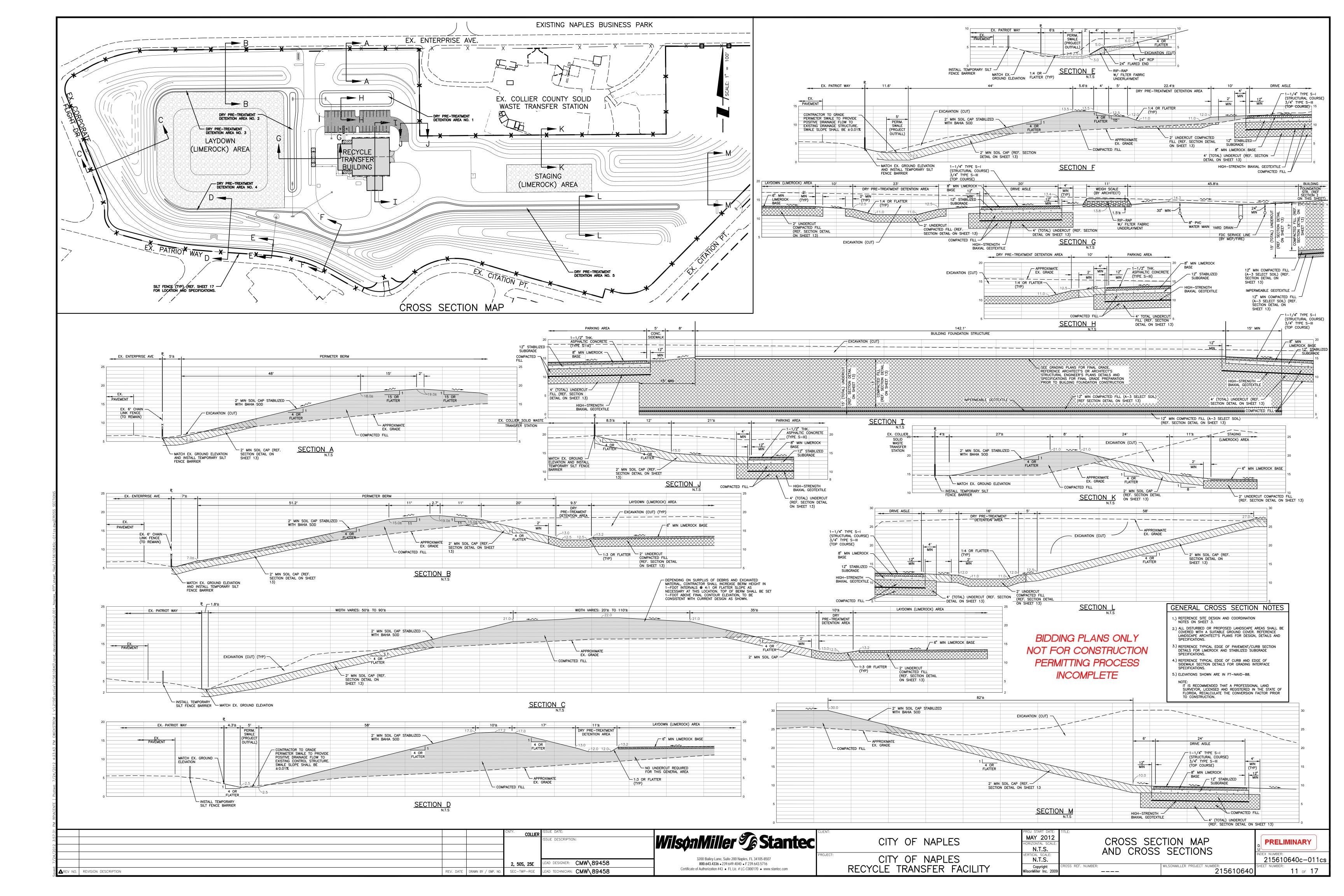


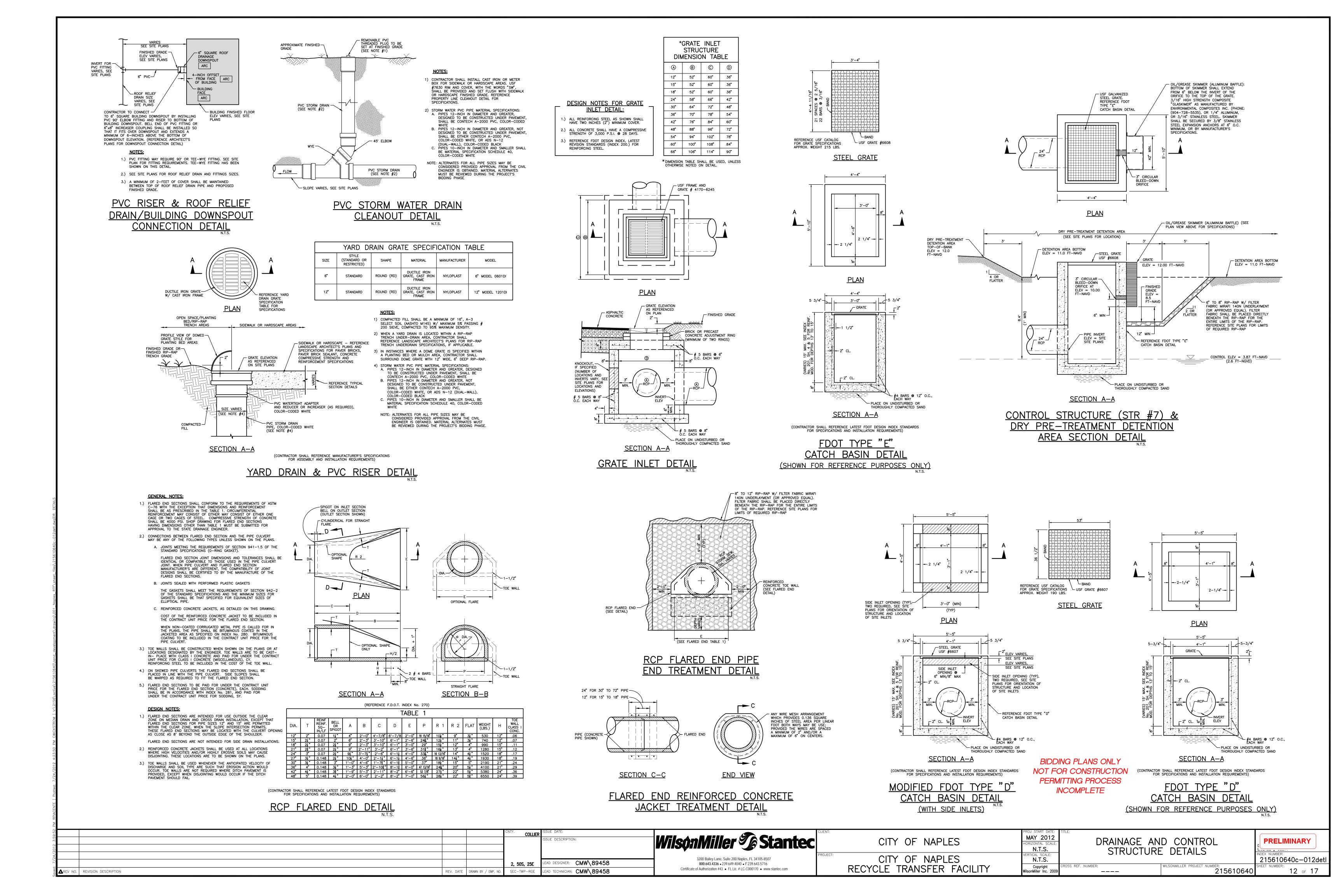


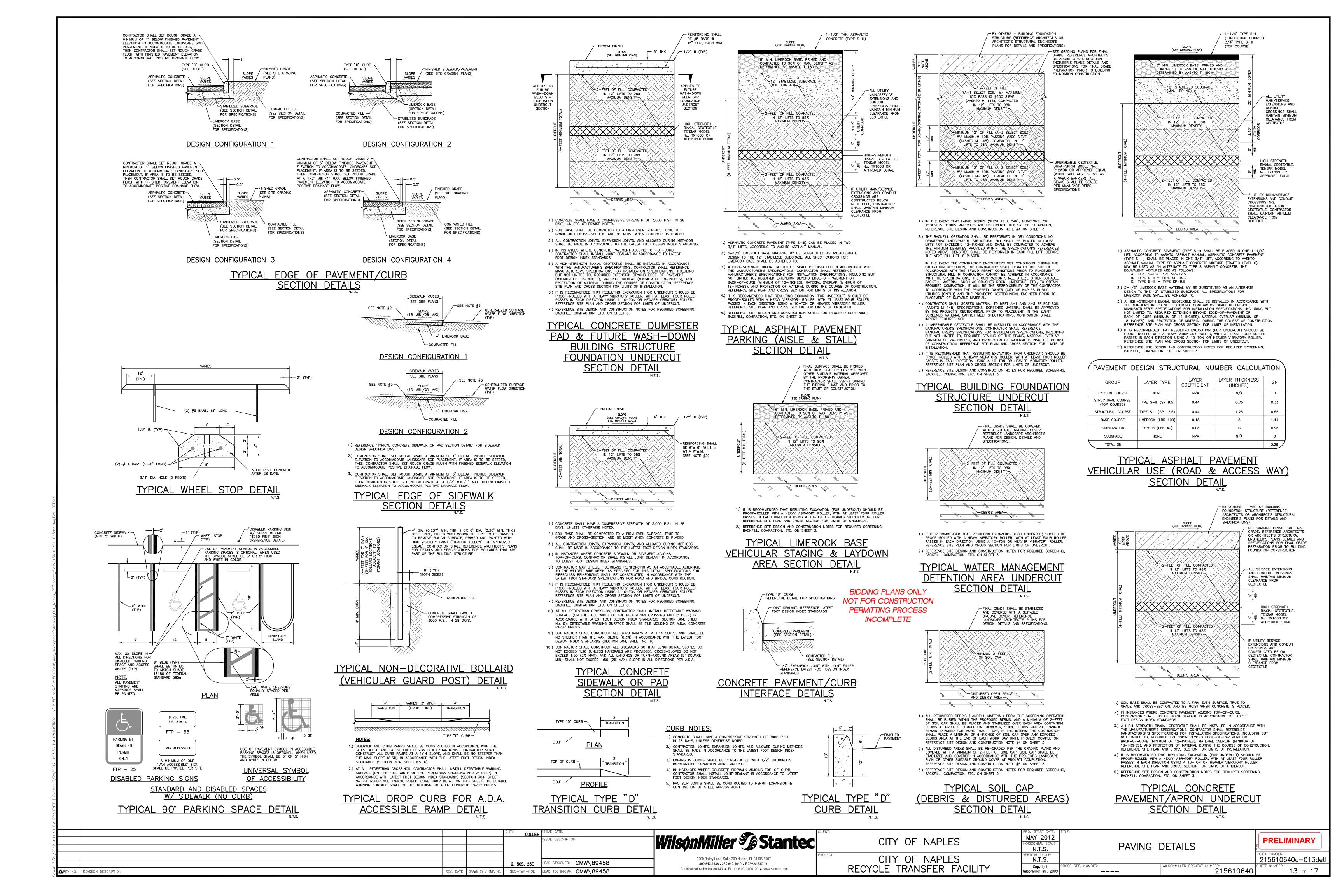


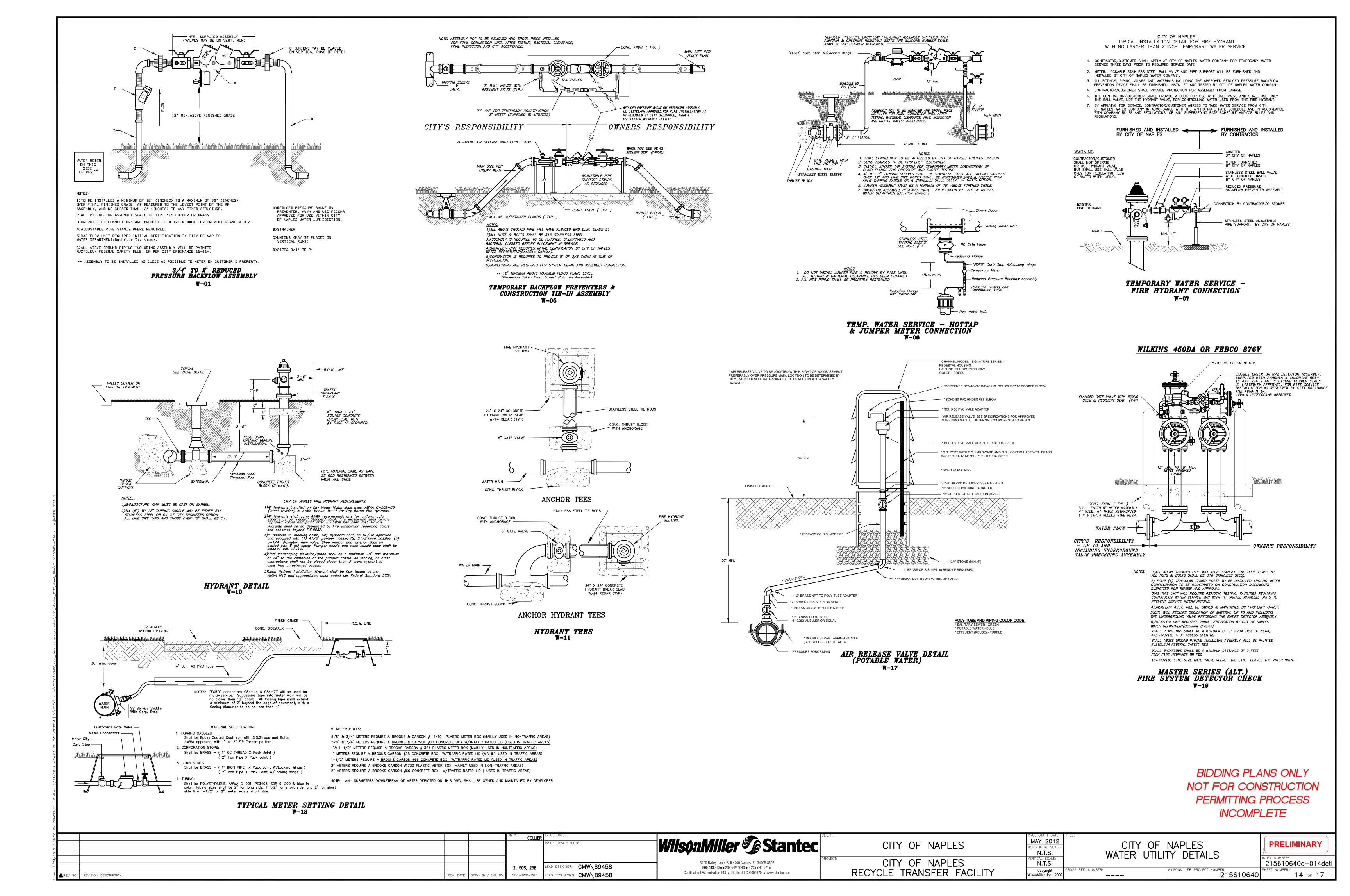


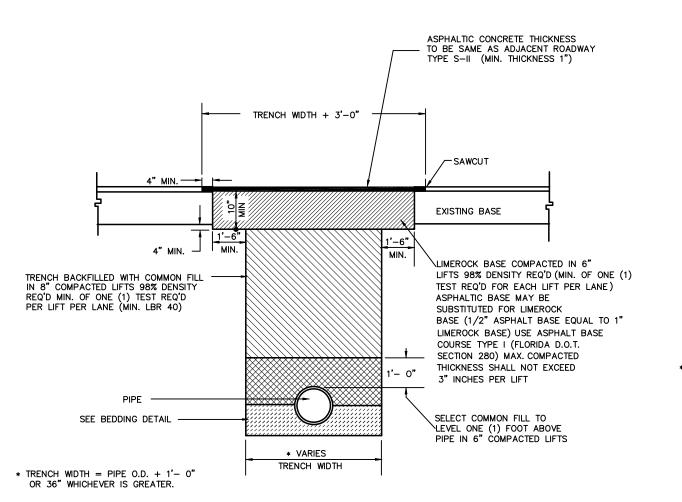






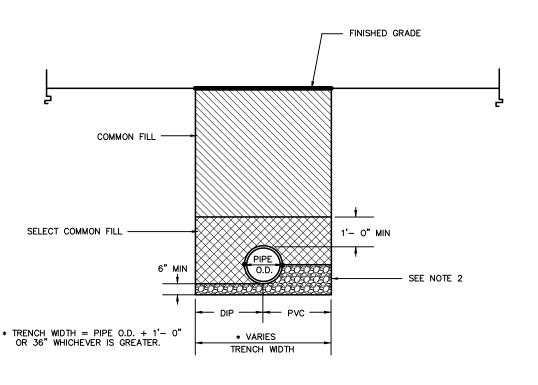






NOTES: 1) ALL PROCTOR AND DENSITY TESTS SHALL BE TAKEN BY A CERTIFIED LABORATORY 2) ALL TESTS SHALL BE COMPLETED AND MEET MINIMUM DENSITY REQUIREMENTS PRIOR TO ADDITIONAL BACK-FILLING ORDINANCE 82-91 REQUIRES A R.O.W. PERMIT FOR ALL WORK WITHIN PUBLIC ROADS. THE R.O.W. PERMIT REQUIREMENTS SHALL SUPERSEDE THIS DETAIL.

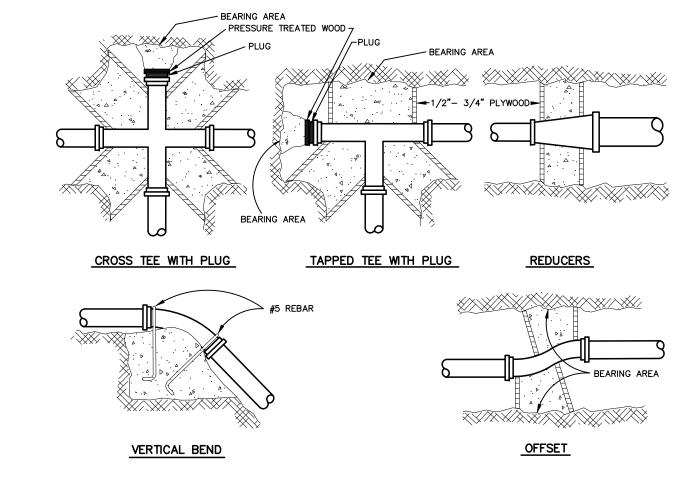
> BACKFILL - PAVED ROADWAYS U-02



NOTES: 1) COMMON FILL SHALL BE COMPACTED TO MATCH CRITERIA PROVIDED IN BACKFILL DETAILS FOR PAVED AND UNPAVED LOCATIONS RESPECTIVELY.

> BEDDING MATERIAL SHALL BE FDOT #57 STONE IF BELOW THE SEASONAL LOW GROUNDWATER TABLE, OR FDOT #89 STONE, FDOT #131 OR #132 SCREENING IF ABOVE THE SEASONAL ORDINANCE 82-91 REQUIRES A R.O.W. PERMIT FOR ALL WORK WITHIN PUBLIC ROADS. THE R.O.W. PERMIT REQUIREMENTS SHALL SUPERSEDE THIS DETAIL.

PIPE BEDDING & BACKFILL

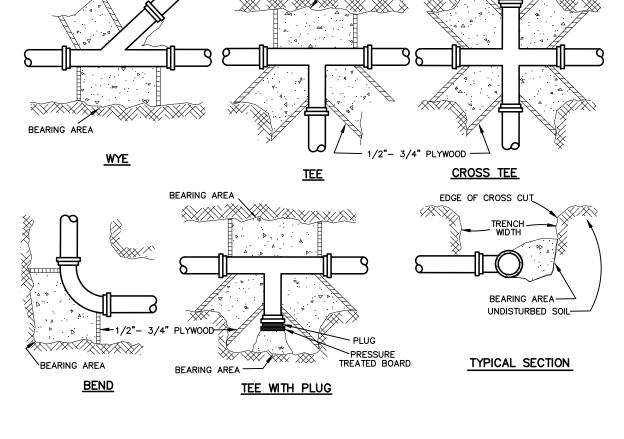


THRUST BLOCKS NO. U-04

PIPE SIZE	TEES	90 BEND	45 BEND	22 1/2 BEND	VALVES
4"	1	1	1	1	1
6 "	3	4	2	1	3
8"	5	7	4	2	5
10"	8	12	6	3	9
12"	12	16	9	5	12
16"	16	20	12	7	16
20"	24	20	17	10	24
24"	34	34	24	13	34

1. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH. 2. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS. 3. POUR THRUST BLOCKS AGAINST UNDISTURBED SOIL WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE SOIL AND EXTEND THRUST BLOCK TO UNDISTURBED SOIL. 4. IN BACK FILLING, ANY MUCK ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL.

5. BACK FILL MATERIAL SHALL NOT INCLUDE ROCK OR BOULDERS. 6. THRUST BLOCK AREAS BASED ON SOIL BEARING LOAD OF 2000 P.S.F. AND LINE PRESSURE OF 150 P.S.I.. 7. ALL CONCRETE SHALL BE MINIMUM 2000 PSI

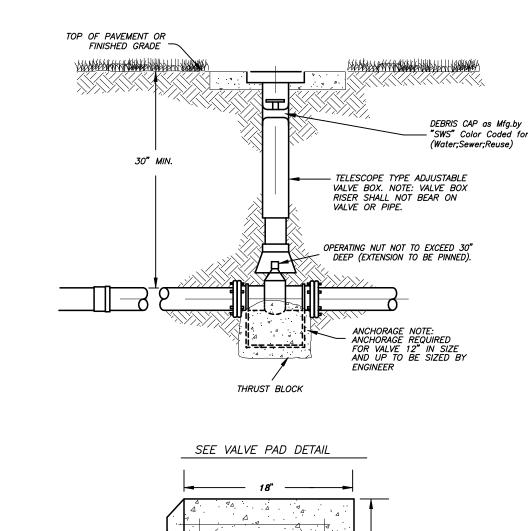


IM BEARING AREAS IN SQUARE FEET FOR THRUST BLOCKS NOTES:									
PE ZE	TEES	900 BEND	450 BEND	22 1/20 BEND	VALVES & PLUGS	,			
,	1	1	1	1	1	3. POUR THRUST BLOCKS AGAINST UNDISTURBED SOIL WHERE			
,	3	4	2	1	3	TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE SOIL AND EXTEND THRUST BLOCKS TO UNDISTURBED SOIL.			
,	5	7	4	2	5	 IN BACK FILLING, ANY MUCK ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL. 			
"	8	12	6	3	9	5. BACK FILL MATERIAL SHALL NOT INCLUDE ROCK OR BOULDER			
."	12	16	9	5	12	 THRUST BLOCK AREAS BASED ON SOIL BEARING LOAD OF 2000 P.S.F. AND LINE PRESSURE OF 150 P.S.I 			
"	16	20	12	7	16	7. ALL CONCRETE SHALL BE MINIMUM 2000 PSI			
"	24	20	17	10	24				
!"	34	34	24	13	34				
<u> </u>	TYPICAL THRUST BLOCKS								

THRUST BLOCKS NO. 2

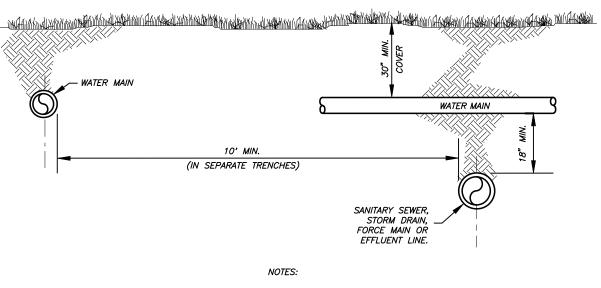
10"

20"



6"X18"X18" CONCRETE COLLAR W/TWO # 4 REBARS PER SCHEMATIC

TYPICAL IN-LINE VALVE (WATER/SEWER/REUSE) U-14



- WATER MAIN	AHS GIIIMILIATII IL DESSE AL	WATER MAIN 9
10' MIN. (IN SEPARATE TRE	SANI S FOR	TARY SEWER, TORM DRAIN, CE MAIN OR FLUENT LINE.
SANITARY SEWER LINES OR FORCE MAIN A MINIMUM CLEAR VERTICAL DISTANCE C	NOTES: S SHALL BE SEPARATED F 18" AND A HORIZONT.	FROM WATER MAINS BY AL DISTANCE OF 10'-0".

ALL CROSSING WITH VERTICAL CLEARANCE LESS THAN 18" SHALL BE MADE USING THICKNESS CLASS 200 AWWA C-900 P.V.C. OR DUCTILE IRON, CLASS 350 PIPE FOR DISTANCE OF 10' EACH SIDE OF THE CROSSING AND SEWER SHALL BE CONCRETE ENCASED.

18" CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER MAIN CROSSES VERTICAL CLEARANCE LESS THAN 12" SHALL NOT BE ALLOWED,UNLESS APPROVED BY THE CITY ENGINEER

> CROSS OVER U-07

> > PIPE

SIZE

INCHES

PIPE RESTRAINT SCHEDULE U-09

1. RESTRAIN ALL PIPE JOINTS WITHIN THE DISTANCE SHOWN ON THE TABLES MEASURED FROM THE POINT OF CONNECTION.

2. ISOLATION VALVES SHALL BE TREATED AS DEAD ENDS. WITH RESTRAINT ON BOTH SIDES OF THE VALVE.

3. RESTRAINT IS FOR BRANCH OF TEE. IF BRANCH SIZE IS NOT ON TABLE, USE NEXT LARGEST BRANCH.

4. RESTRAINT IS FOR LARGE DIAMETER SIDE OF REDUCER. IF REDUCER SIZE IS NOT ON TABLE, USE NEXT SMALLER REDUCER (SMALL END).

HORIZONTAL BENDS

RESTRAINED PIPE LENGTH IN FEET (1)

162 67 32 16 253 105

 36
 17
 9
 120
 50

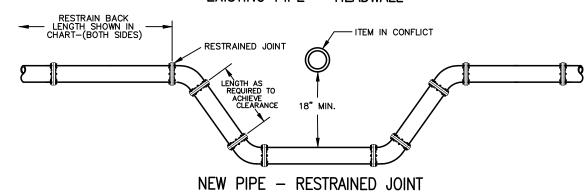
45* | 22-1/2* | 11-1/4* |

ENDS | VERTICAL BENDS

(2) UPPER LOWER

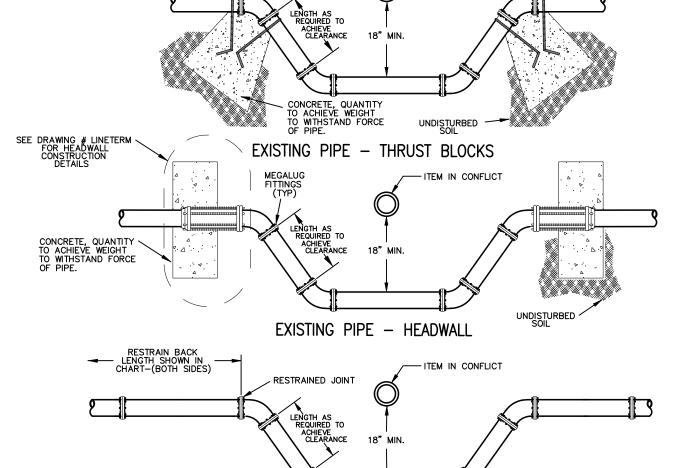
5. THIS SCHEDULE IS TO BE USED FOR DUCTILE IRON AND PVC PIPE.

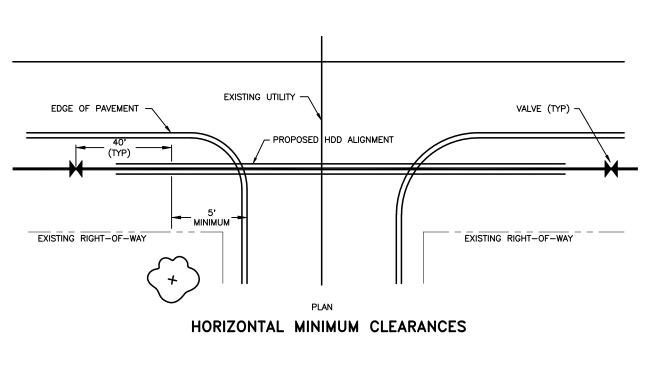
3/4" S.S. RODS, BENT TO ANCHOR (TYP)	MEGALUG FITTINGS 45' (TYP)
y	LENGTH AS REQUIRED TO ACHIEVE CLEARANCE 18" MIN.
	CONCRETE, QUANTITY TO ACHIEVE WEIGHT TO WITHSTAND FORCE UNDISTURBED OF PIPE.
SEE DRAWING # LINETERM FOR HEADWALL CONSTRUCTION DETAILS	EXISTING PIPE - THRUST BLOCKS
CONCRETE, QUANTITY TO ACHIEVE WEIGHT	
TO WITHSTAND FORCE OF PIPE.	
	EXISTING PIPE — HEADWALL
RESTRAIN BACK	

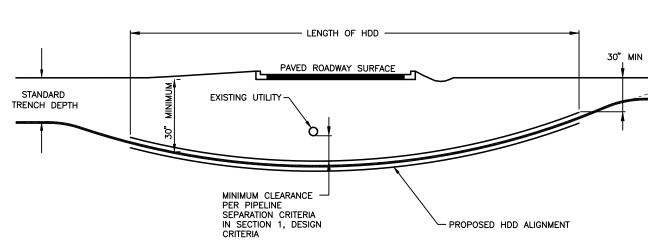


*RESTRAINED JOINT PIPE DISTANCES FOR NEW PIPE (IN FEET)						
PIPE SIZE	90 [°] BEND	45° BEND	22 1/2 ⁰ BEND	11 1/4 ⁰ BEND		
8"	74	31	15	7		
10"	87	36	17	9		
12"	100	41	20	10		
16"	123	51	24	12		
20"	143	59	29	14		
24"	162	67	32	16		
30 "	184	76	37	18		
36"	207	86	41	20		
*FOR FITTINGS NOT SHOWN HERE, REFER TO PIPE RESTRAINT DETAIL DRAWING						

TYPICAL CONFLICT CROSSING U-08







VERTICAL MINIMUM CLEARANCES

HDD INSTALLATION NOTES:

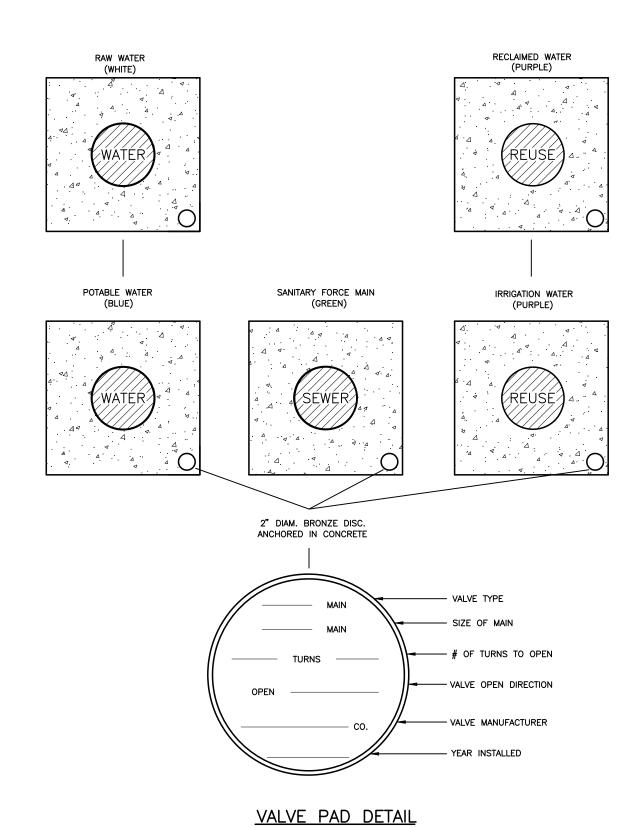
- 1. ALL WORK SHALL BE IN ACCORDANCE WITH SECTIONS 1 AND 02300 6. EXCAVATIONS SHALL BE RESTORED IN ACCORDANCE WITH THE CITY UTILITIES STANDARD MANUAL AND STANDARD DETAILS.
- 2. ALL HDD INSTALLATION ACTIVITIES SHALL BE IN ACCORDANCE WITH 7. CASING DIAMETER SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS. THE FLORIDA D.O.T. UTILITY ACCOMMODATIONS MANUAL AND THE CITY UTILITIES STANDARDS.

 7. CASING DIAMETER SHALL BE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS. 8. NO SPACERS REQUIRED. 9. ALLOW 40' BETWEEN VALVE AND END OF CASING. DISTANCE LESS THAN 40'
 TO REQUIRES APPROVAL OF DEVIATION. THE 40' LENGTH SHALL NOT INCLUDE
 BRANCHES/TEES IN THE PIPING BETWEEN VALVE AND END OF CASING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF AFFECTED AGENCIES AND COORDINATION WITH ALL UTILITIES PRIOR TO CONSTRUCTION.
- 4. ALL CONSTRUCTION MATERIALS, INCLUDING DRILLING FLUID, SHALL BE REMOVED FROM THE SITE PRIOR TO RESTORATION OF DISTURBED AREAS.

 10. VALVES AT EACH END OF THE HDD AND CASING FOR THE HDD ARE REQUIRED FOR NUMBERED COUNTY ROADS, STATE ROADS AND AT INTERSECTIONS WITH NUMBERED COUNTY ROADS AND STATE ROADS.

5. ALL RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY UTILITIES STANDARD MANUAL. ENGINEERS SHALL PROVIDE STANDARDS EQUAL TO OR

> TYPICAL HORIZONTAL DIRECTIONAL DRILL UNDER A ROADWAY U-11



VALVE PAD DETAIL

U-15

BIDDING PLANS ONLY NOT FOR CONSTRUCTION PERMITTING PROCESS

INCOMPLETE

RESTRAINED PIPE LENGTH IN FEET (1)

REDUCER (4)

TEE (3)

SIZE

INCHES

6 x 6

8 × 4

8 x 8 10 x 6

12 x 8

16 x 6

16 x 16

18 x 8

18 x 18

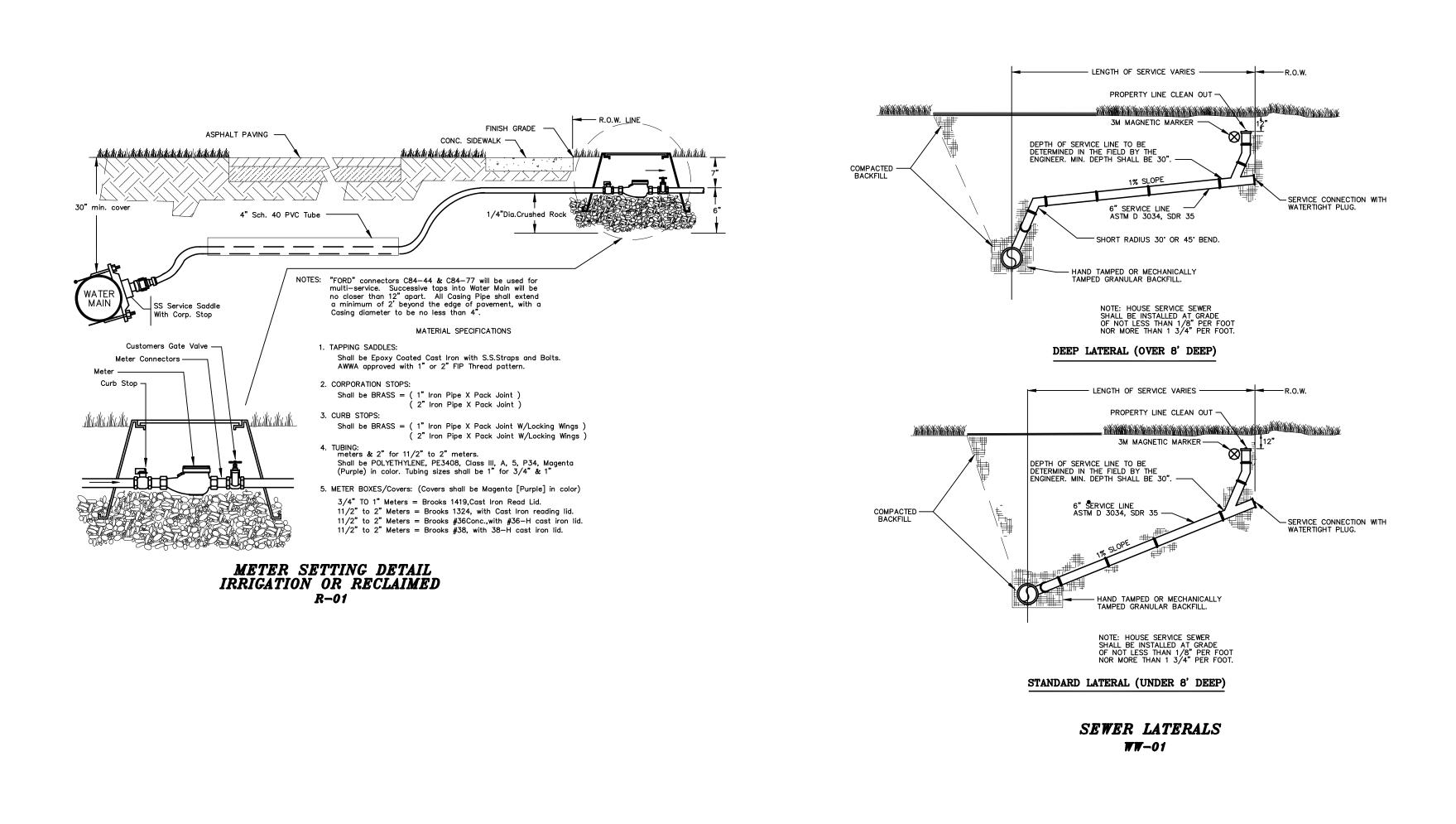
20 x 20

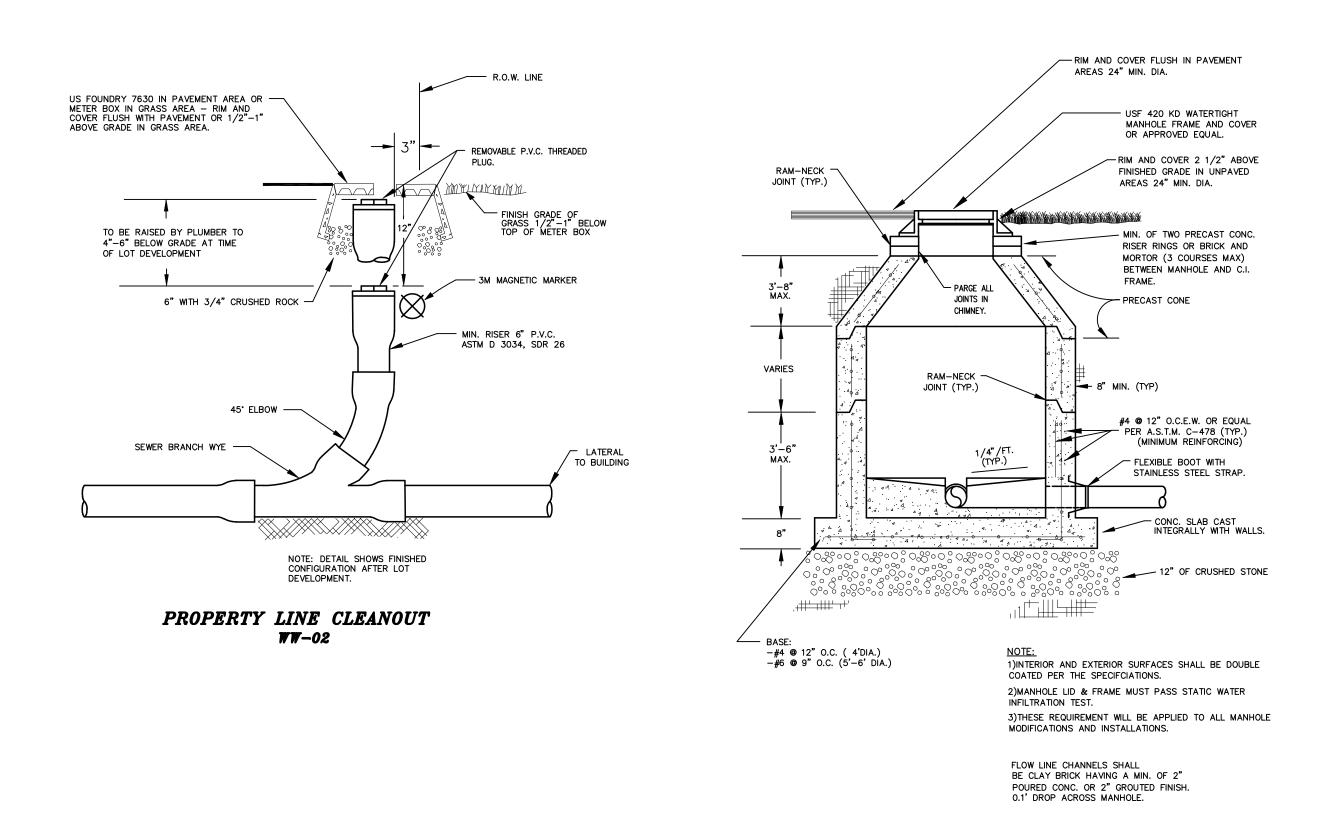
24 x 18

24 x 24

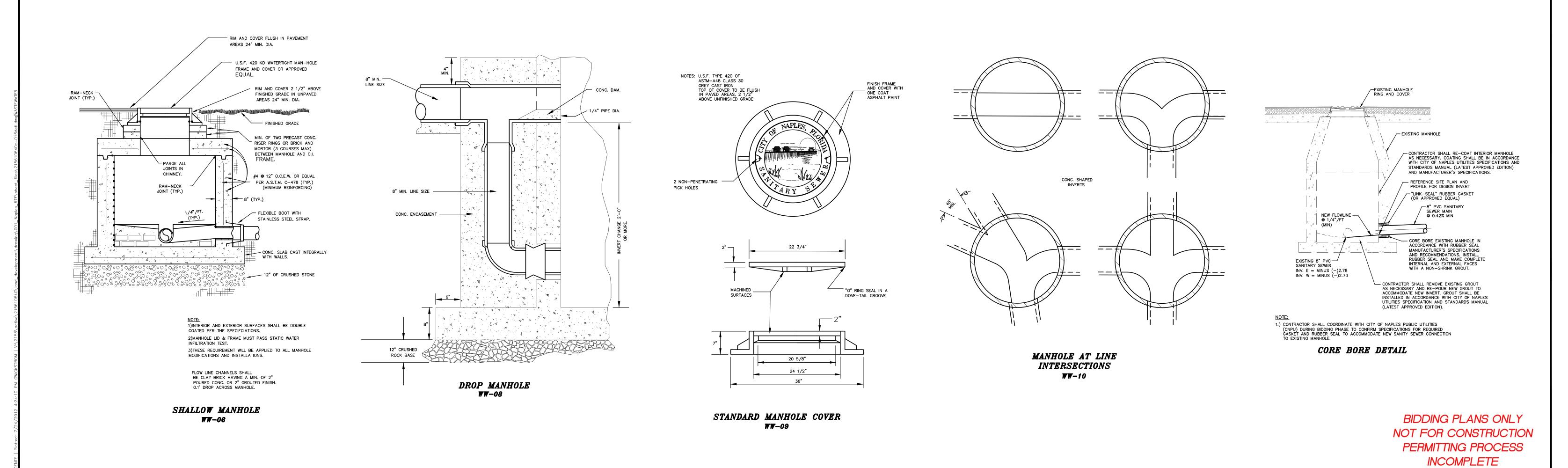
36 x 18

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		ISSUE DESCRIPTION:	<i>WilsonMiller S</i> Stantec	CITY OF NAPLES	MAY 2012	CITY OF NAPLES	PRELIMINARY
				3111 31 1111 223	N.T.S.	GENERAL UTILITY DETAILS	
				PROJECT:	VERTICAL SCALE:	GLINLIVAL OTILITI DLIAILS	INDEX NUMBER:
	0 500 055	LEAD DESIGNER: CMW\89458	3200 Bailey Lane, Suite 200 Naples, FL 34105-8507 800.643.4336	CITY OF NAPLES	N.T.S.		215610640c-015detl
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