

TALICHET PHASE 2 SUBDIVISION CIVIL ENGINEERING PLANS

PROJECT TEAM

CIVIL ENGINEERING

GERMANA ENGINEERING AND ASSOCIATES, LLC.
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1120 WEST MINNEOLA AVENUE
CLERMONT, FLORIDA 34711
(352) 242-9329

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BESH HALFF
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OWNER/DEVELOPER

VENEZIA PARTNERS, LLC.
CONTACT: RON ROBERTS
1190 BUSINESS CENTER DRIVE, SUITE 2000
HEATHROW, FLORIDA 32746
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GEOTECHNICAL ENGINEERING

ANDREYEV ENGINEERING, INC.
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1170 WEST MINNEOLA AVENUE
CLERMONT, FLORIDA 34711
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GENERAL NOTE

THE PLANS WERE PREPARED ACCORDING TO AVAILABLE INFORMATION BASED ON THE CONDITIONS AS THEY EXISTED AT THE TIME OF PLAN PREPARATION. THE CONDITIONS OF THE PROPERTY MAY HAVE CHANGED SINCE PROJECT DESIGN. THE CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND SHALL CONTACT THE PROJECT ENGINEER IMMEDIATELY IF CONDITIONS HAVE CHANGED FROM WHEN THE PLANS WERE PREPARED.

ACCESSIBILITY NOTE

THE SITE SHALL COMPLY WITH THE FLORIDA BUILDING CODE (FBC) 2020 ACCESSIBILITY CODE.

PROPERTY LEGAL DESCRIPTION (PER SURVEY)

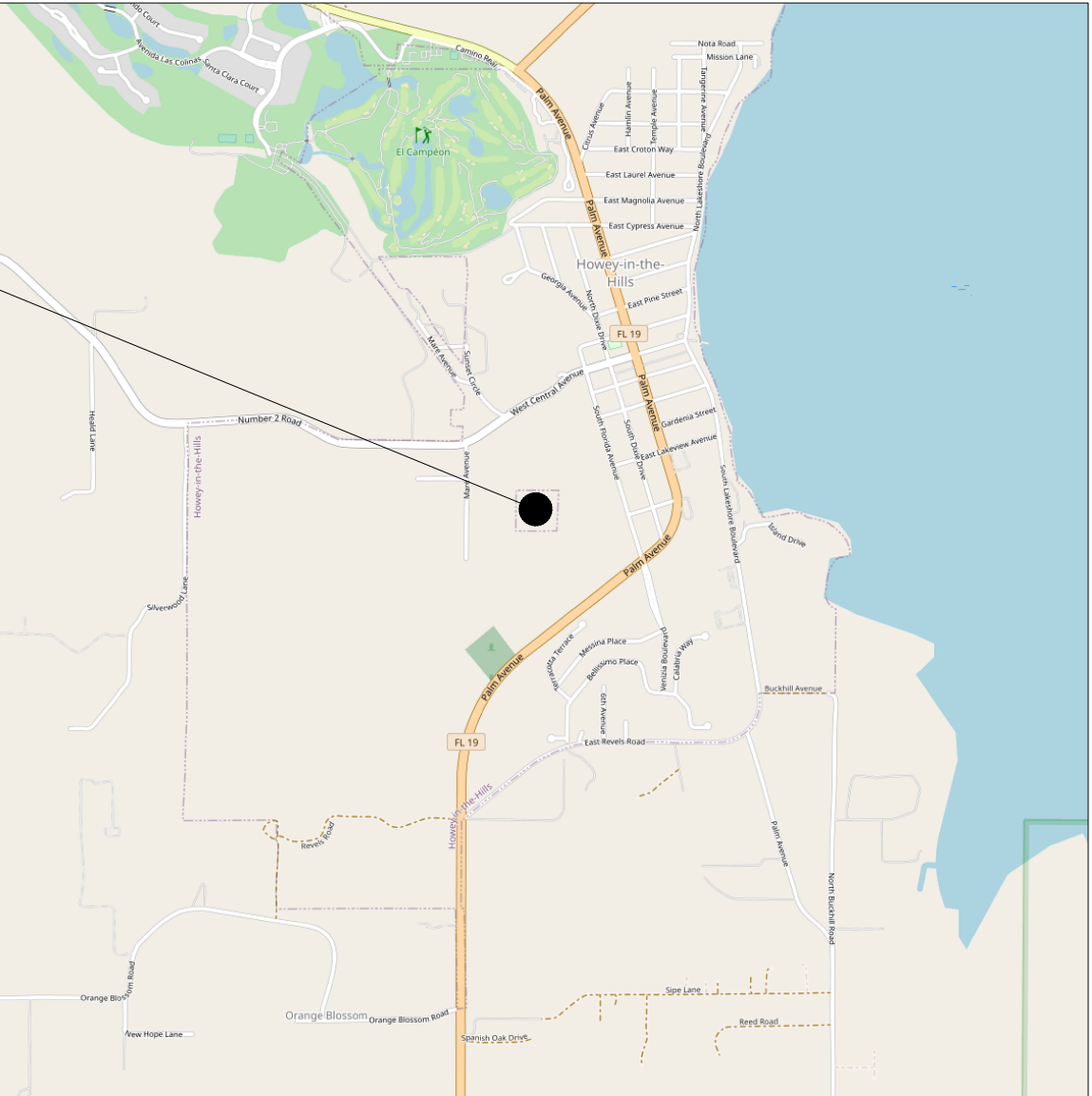
THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 35, TOWNSHIP 20 SOUTH OF RANGE 25 EAST OF TALLAHASSEE MERIDIAN, LAKE COUNTY, FLORIDA.

ALSO DESCRIBED AS:

COMMENCING AT THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 35, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, THENCE RUN SOUTH 89°27'45" EAST, ALONG THE NORTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 35, A DISTANCE OF 661.44 FEET TO THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 35; THENCE RUN SOUTH 00°34'04" WEST, ALONG THE WEST LINE OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 35, A DISTANCE OF 662.94 FEET TO THE NORTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35 AND THE POINT OF BEGINNING; THENCE RUN SOUTH 89°25'04" EAST, ALONG THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35, A DISTANCE OF 659.88 FEET TO THE NORTHEAST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35; THENCE RUN SOUTH 00°27'45" WEST, ALONG THE EAST LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35, A DISTANCE OF 662.82 FEET TO THE SOUTHEAST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35; THENCE RUN NORTH 89°22'50" WEST, ALONG THE SOUTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35, A DISTANCE OF 661.08 FEET TO THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35; THENCE RUN NORTH 00°33'59" EAST, ALONG THE WEST LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 35, A DISTANCE OF 662.39 FEET TO THE POINT OF BEGINNING.
CONTAINING 437,633.7512± SQUARE FEET OF 10.04± ACRES.

VICINITY MAP

PROJECT SITE



AVILA PLACE
HOWEY IN THE HILLS, FLORIDA 34737
SECTION 35, TOWNSHIP 20 SOUTH, RANGE 25 EAST

SHEET LIST

- C1 COVER SHEET
- C2 CONSTRUCTION NOTES
- C3 DEMOLITION PLAN
- C4 SUBDIVISION SITE PLAN
- C5 SUBDIVISION GRADING AND DRAINAGE PLAN
- C6 SUBDIVISION UTILITY PLAN
- C7 STORMWATER POLLUTION PREVENTION PLAN
- C8 VIA BELLA COURT PLAN AND PROFILE
- C9 VIA BELLA COURT CROSS SECTIONS
- C10 TREE REMOVAL PLAN
- C11 CONSTRUCTION DETAILS
- C12 POTABLE WATER CONSTRUCTION DETAILS
- C13 POTABLE WATER CONSTRUCTION DETAILS
- C14 RECLAIMED/SEWER CONSTRUCTION DETAILS

DATUM NOTE

ELEVATIONS SHOWN ON THE PLAN SET ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (PER SURVEY)

PERMIT NOTE

SEPARATE PERMITS ARE REQUIRED FOR THE FOLLOWING (IF APPLICABLE):

- CONSTRUCTION TRAILERS
- LIFT STATIONS
- RETAINING WALLS
- ACCESS GATES
- GENERATORS
- AWNINGS
- ETC.
- DUMPSTER ENCLOSURES
- SIGNS
- ENTRY WALL FEATURES
- SITE LIGHTING
- FENCES
- WALK-IN COOLERS

FIRE NOTE

SITE TO CONFORM TO FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020)

SEPARATE PERMITS ARE REQUIRED FOR THE FOLLOWING (IF APPLICABLE):

- FIRE SPRINKLERS
- FIRE ALARM MONITORING
- DUMPSTER ENCLOSURE
- FIRE ALARMS
- FIRE UNDERGROUND

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW!
DIAL 811

Know what's below.
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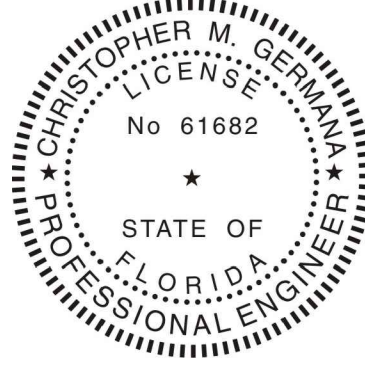
SUNSHINE STATE ONE CALL OF FLORIDA, INC.



CERTIFICATE OF AUTHORIZATION NUMBER: 29279
1120 WEST MINNEOLA AVENUE
CLERMONT, FLORIDA 34711
PHONE: (352) 242-9329
WWW.GERMANAENGINEERING.COM

This item has been digitally signed and sealed by Christopher M. Germana, PE on the date adjacent to the seal.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by Christopher M Germana
Date: 2021.12.02 14:15:07 -05'00'



CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
FIRM CERTIFICATE OF AUTHORIZATION # 29279

ISSUE DATE: 08-25-2021

EXISTING UTILITIES

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

DRAINAGE SYSTEMS

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

PERMITS AND PERMIT REQUIREMENTS

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

LAYOUT AND CONTROL

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

QUALITY CONTROL TESTING REQUIREMENTS

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

SHOP DRAWINGS

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

EARTHWORK

EARTHWORK QUANTITIES

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

EROSION CONTROL

EROSION AND SILTRATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED. REFER TO WATER MANAGEMENT DISTRICT PERMIT FOR ADDITIONAL REQUIREMENTS FOR EROSION CONTROL AND SURFACE DRAINAGE. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITH SOD WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION. SOD SHALL BE THE SAME VARIETY OF EXISTING SOD

LIMITS OF DISTURBANCE

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

TREE REMOVAL

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

CLEARING AND GRUBBING

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

MATERIAL STORAGE/DEBRIS REMOVAL

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

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

FILL MATERIAL

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

COMPACTION

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

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

GENERAL DESIGN INTENT

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

MATERIALS/CONSTRUCTION SPECIFICATIONS

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

PAVEMENT SECTION REQUIREMENTS

CONSTRUCTION OF ROADWAY, SUBGRADE PREPARATION, AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND SOILS REPORT RECOMMENDATIONS UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DOCUMENTS.

SIDEWALKS

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREA AS SHOWN ON THE CONSTRUCTION PLANS. SIDEWALK SHALL BE CONSTRUCTED OF 4 INCHES OF CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 3000 PSI. JOINTS SHALL BE EITHER TOoled OR SAWCUT AT A DISTANCE OF 5' LENGTHS, HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

PAVEMENT MARKINGS/SIGNAGE

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

TRAFFIC CONTROL

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

CURBING

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

R/W RESTORATION

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

SITE ACCESS

ALL ACCESS TO THE JOB SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS.

MANHOLES

ALL PROPOSED MANHOLES SHALL BE COMPACTION TESTED ON TWO SIDES OF EACH PROPOSED MANHOLE AT THE MANHOLE.

LANDSCAPING

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

WATER PIPE MATERIALS

WATER SYSTEM SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL MEET TOWN OF HOWEY IN THE HILLS SPECIFICATIONS.

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

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

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

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

VALVES

GATE VALVES SHALL BE RESILIENT SEAT AND SHALL CONFORM TO ANSII/AWWA C509.87 WITH WRENCH NUT, EXTENSION STEMS AND OTHER APPURTENANCES AS REQUIRED. MANUFACTURER'S CERTIFICATION OF THE VALVES COMPLIANCE WITH AWWA SPECIFICATION C509 AND TESTS LISTED THEREIN WILL BE REQUIRED. VALVES SHALL BE CLOW, DRESSER, KENNEDY, AMERICAN.

AIR RELEASE VALVES

AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATION AND METHOD OF INSTALLATION SHALL BE INDICATED ON THE DRAWINGS, OR AS DIRECTED BY THE ENGINEER. AIR RELEASE VALVES SHALL BE CRISPN PRESSURE AIR VALVE TYPE.

WATER SERVICES

UNLESS OTHERWISE NOTED IN THE PLANS, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS. CONTRACTOR SHALL CONSTRUCT WATER SERVICE THROUGH THE CURB STOP AND SET METER BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET.

POLYETHYLENE (PE) PRESSURE PIPE FOR WATER SERVICES 1/2" THROUGH 3" SHALL CONFORM TO AWWA C901.88, MIN. 200 PSI. AND SHALL BE PHILLIPS DRISCO CTS 5100 (DR-9) ASTM D-2737, 200 PSI. ALL SERVICES SHALL INCLUDE THE FOLLOWING: LOCKING CURB STOPS, WYE BRANCHES, UNIONS AS REQUIRED, PE SERVICE PIPE AND CORPORATION STOPS. THE SERVICE SHALL BE COMPLETE THROUGH THE CURB STOP AS SHOWN ON THE DETAIL SHEET, AND SHALL BE OF THE TYPE REQUIRED FOR COMPATIBILITY WITH THE SERVICE LINES SPECIFIED, AND FITTINGS SHALL BE MANUFACTURED BY FORD.

WHERE APPLICABLE - UNLESS OTHERWISE NOTED IN PLANS, UTILITY COMPANY SHALL PROVIDE AND INSTALL IRRIGATION METERS. WHERE RECLAIM SERVICE IS NOT PROVIDED, CONTRACTOR SHALL CONSTRUCT IRRIGATION SERVICE THROUGH THE CURB STOP AND SET NEW BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET.

PIPE INSTALLATION

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

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

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

WATER MAINS ARE TO BE INSTALLED SO AS TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18" OR A MINIMUM HORIZONTAL CLEARANCE OF 10' FROM ALL OTHER UTILITIES. IF THE MINIMUM CLEARANCE CAN NOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE SPECIFIED 10 FEET EITHER SIDE OF THE CROSSING. HORIZONTAL AND VERTICAL MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN WATER MAIN AND ALL OTHER UTILITIES SHALL COMPLY WITH 62-555.314 (1), (2), (3) AND (4), FAC.

ALL WATER MAINS SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS.

ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDRANTS, VALVES, ETC. SHALL BE MECHANICAL JOINT FITTINGS.

Digitally signed
by Christopher
M Germana
Date:
2021.12.02
14:16:19 -05'00'



This item has been digitally signed and sealed by Christopher M. Germana. If it is the seal adjacent to the text, printed copies of this document are not considered signed and sealed and their signatures must be verified on any electronic copies.

CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
FIRM CERTIFICATE OF AUTHORIZATION # 29279

CONSTRUCTION
NOTES

TALICHET PHASE 2
SUBDIVISION

HOWEY IN THE HILLS, FLORIDA

PROJECT # GE0082021

GERMANA ENGINEERING
AND ASSOCIATES, LLC

1120 WEST MINNEOLA AVENUE
CLERMONT, FL 34711

WWW.GERMANAENGINEERING.COM
CERTIFICATE AUTHORIZATION NUMBER: 29279

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SCALE: NTS

DATE: 08-25-2021

SHEET

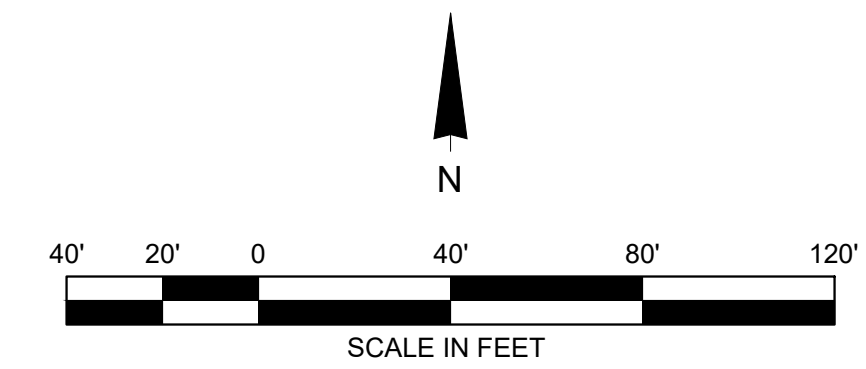
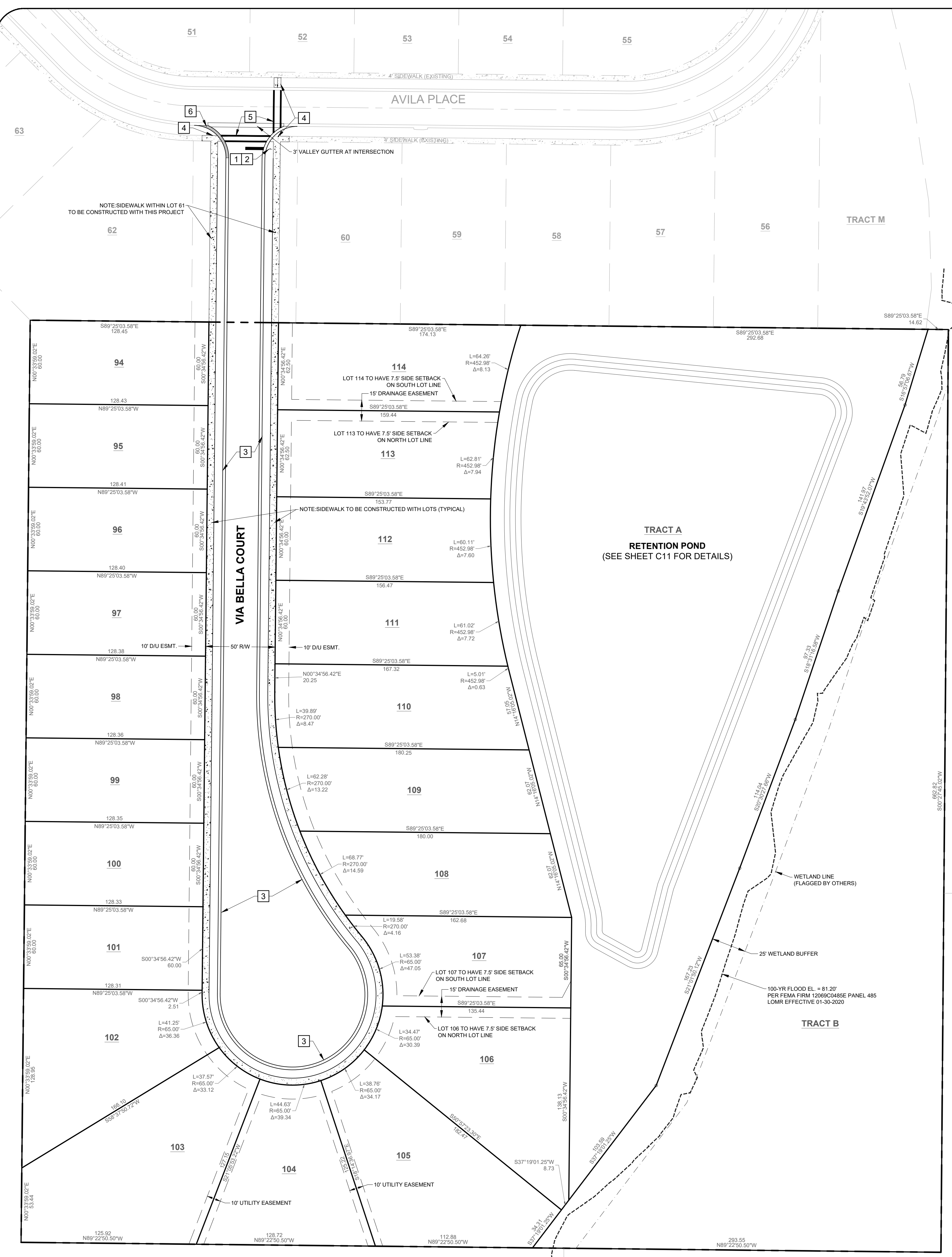
C2

DATE
10-18-2021

REVISIONS
REVISED PER CITY COMMENTS

No.

1.



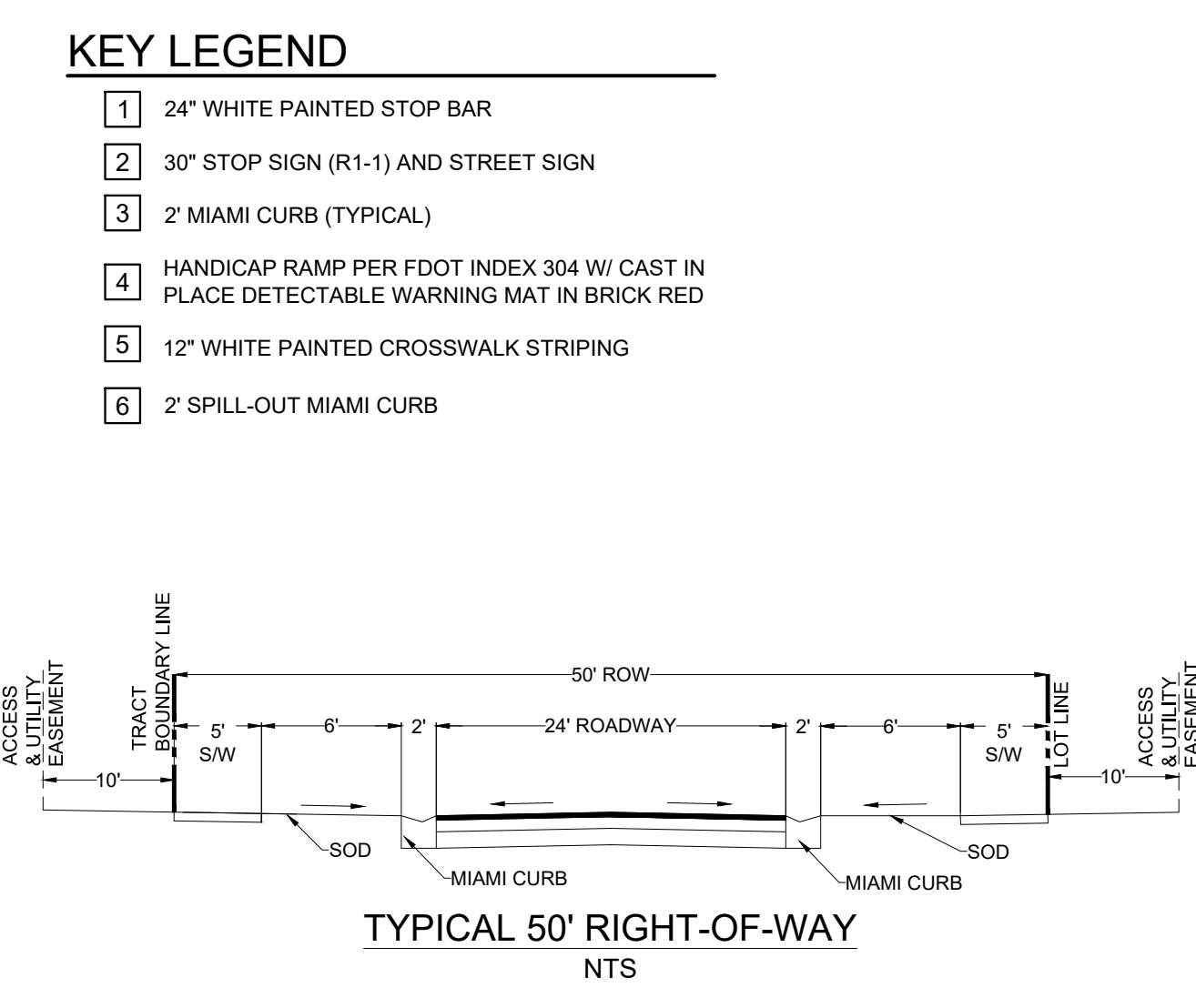
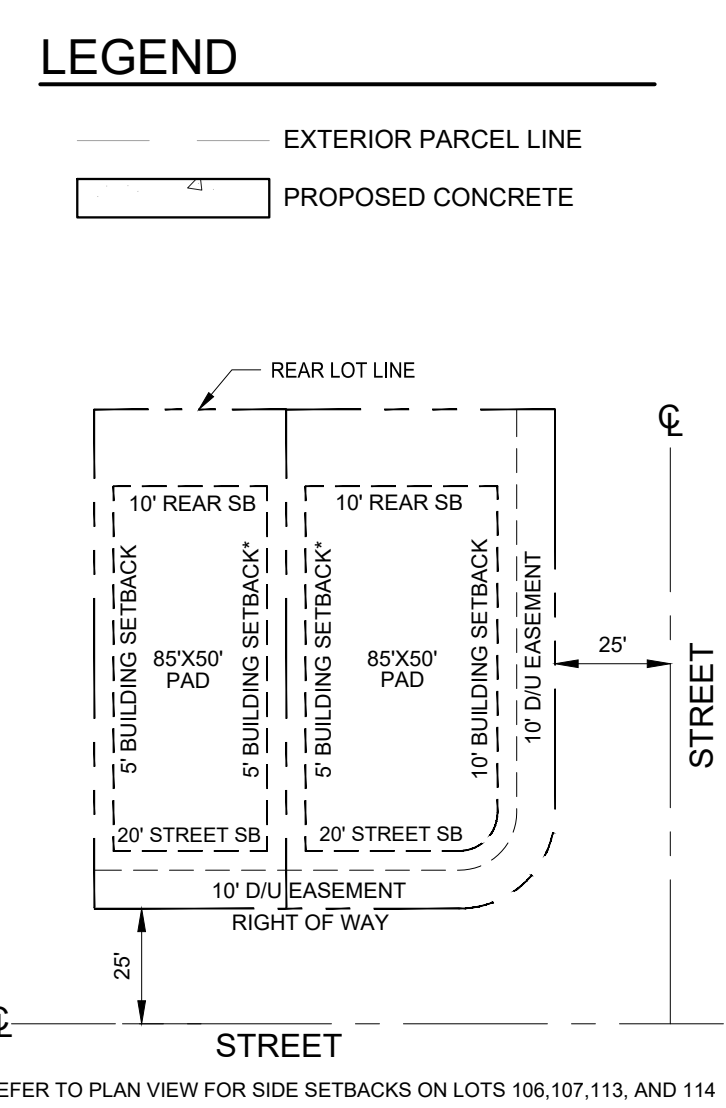
SUBDIVISION SITE DATA

- SITE AREA** = 10.05 AC / 437,634 SF
- SITE LOCATION**
AVILA PLACE
HOWEY IN THE HILLS, FLORIDA 34737
SECTION 35, TOWNSHIP 20 SOUTH, RANGE 25 EAST
ALT KEY #1036194
LAND USE/ZONING: PUD
- SITE REQUIREMENTS (PER PUD)**
MAXIMUM LOTS: 21 SINGLE FAMILY UNITS
SETBACKS: SEE DETAIL THIS SHEET
MIN. LOT SIZE: 60' X 120' / 7,200 SF
MIN. WETLAND SETBACK: 25 FEET
- SUBDIVISION DATA**
NUMBER OF LOTS: 21
CLASSIFICATION: SINGLE FAMILY RESIDENTIAL
DENSITY: 2.09 DU/ACRE
SCHOOL AGE POPULATION: 65 X 21 = 14 CHILDREN
RW WIDTH: 50' TYPICAL
WATER DEMAND: 21 UNITS X 350 GPD/UNIT = 7,350 GPD
SEWER DEMAND: 21 UNITS X 300 GPD/UNIT = 6,300 GPD
TRAFFIC: 21 UNITS X 9.55 TRIPS/UNIT = 201 TRIPS

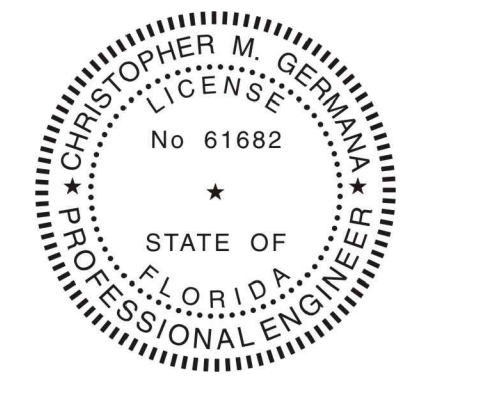
- NOTES**
- THE SITE CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. AUTOCAD FILE WILL BE PROVIDED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN THE AUTOCAD FILES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.
 - PROJECT SITE SHALL COMPLY WITH THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION (FBC) 2020 EDITION.
 - UTILITY EASEMENTS TO BE DEDICATED TO THE TOWN OF HOWEY IN THE HILLS.
 - DRAINAGE UTILITIES TO BE DEDICATED TO THE HOME OWNERS ASSOCIATION.
 - THE HOME OWNERS ASSOCIATION SHALL MAINTAIN ALL COMMON AREAS, FENCES, AND RETENTION AREAS.
 - ALL SIDEWALKS CONSTRUCTED THROUGHOUT THE ENTIRE SITE SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE TOWN OF HOWEY IN THE HILLS LAND DEVELOPMENT REGULATIONS AND SPECIFICATIONS.
 - POND TRACTS SHALL BE DEDICATED TO THE HOME OWNERS ASSOCIATION.
 - WALLS, FENCES, AND SIGNS SHALL BE OWNED AND MAINTAINED BY THE HOME OWNERS ASSOCIATION.
 - ALL UTILITY LINES TO BE DESIGNED TO MEET THE TOWN OF HOWEY IN THE HILLS STANDARDS.
 - ALL CONSTRUCTION MATERIAL AND OTHER PROPOSED IMPROVEMENTS SHALL MEET THE APPLICABLE CODES OF THE TOWN OF HOWEY IN THE HILLS, TOWN OF HOWEY IN THE HILLS DETAILS, OR APPROVED EQUALS, AND WILL BE UTILIZED ON THE FINAL CONSTRUCTION PLANS.

OPEN SPACE / TRACT TABLE

TRACT	USE	OWNERSHIP	ACREAGE	% OVERALL	OPEN SPACE ACREAGE
TRACT A	DRY DETENTION	H.O.A.	2.47 AC	24.58%	2.47 AC
TRACT B	CONSERVATION EASEMENT	H.O.A.	2.01 AC	20.00%	2.01 AC
N/A	RIGHT OF WAY	TOWN OF HOWEY IN THE HILLS	0.86 AC	8.56%	-
N/A	SINGLE FAMILY LOTS	-	4.71 AC	46.86%	-
			10.05 AC	100.00%	4.48 AC



Digitally signed by Christopher M Germana
Date: 2021.12.02 14:17:22 -05'00'



REVISIONS

No.	REVISIONS	DATE
1.	REVISED PER CITY COMMENTS	10-18-2021
2.	REVISED PER CITY COMMENTS	11-22-2021

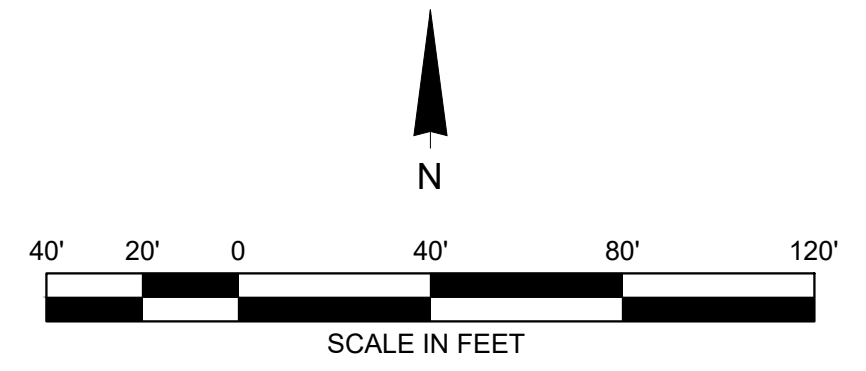
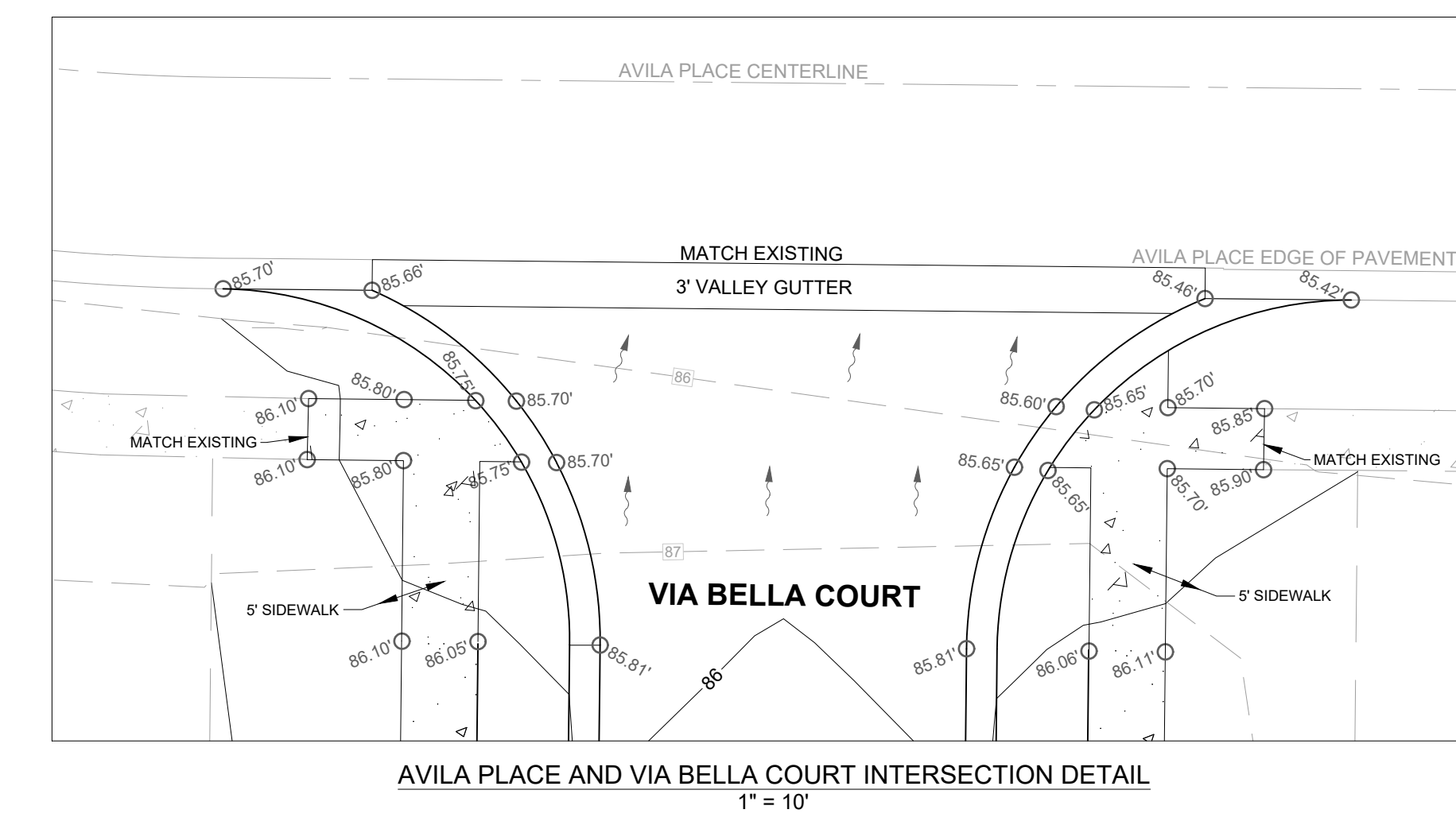
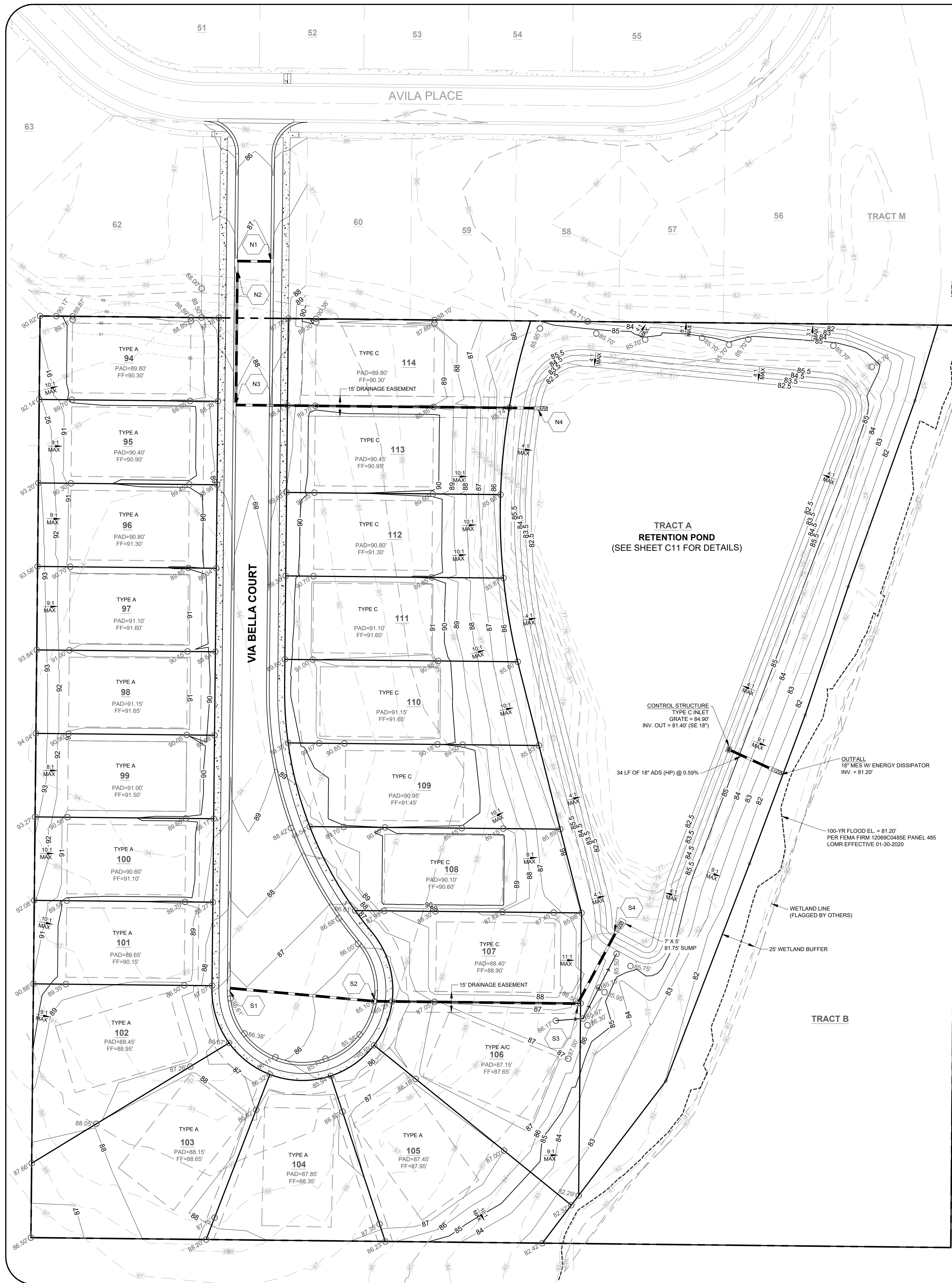
SUBDIVISION SITE PLAN

TALICHET PHASE 2 SUBDIVISION

GERMANA ENGINEERING AND ASSOCIATES, LLC
1120 WEST MINNEOLA AVENUE
CLEARWATER, FL 34711
(813) 242-9929
WWW.GERMANAENGINEERING.COM
CERTIFICATE OF AUTHORIZATION # 2679
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SCALE: 1" = 40'
DATE: 08-25-2021
SHEET
C4

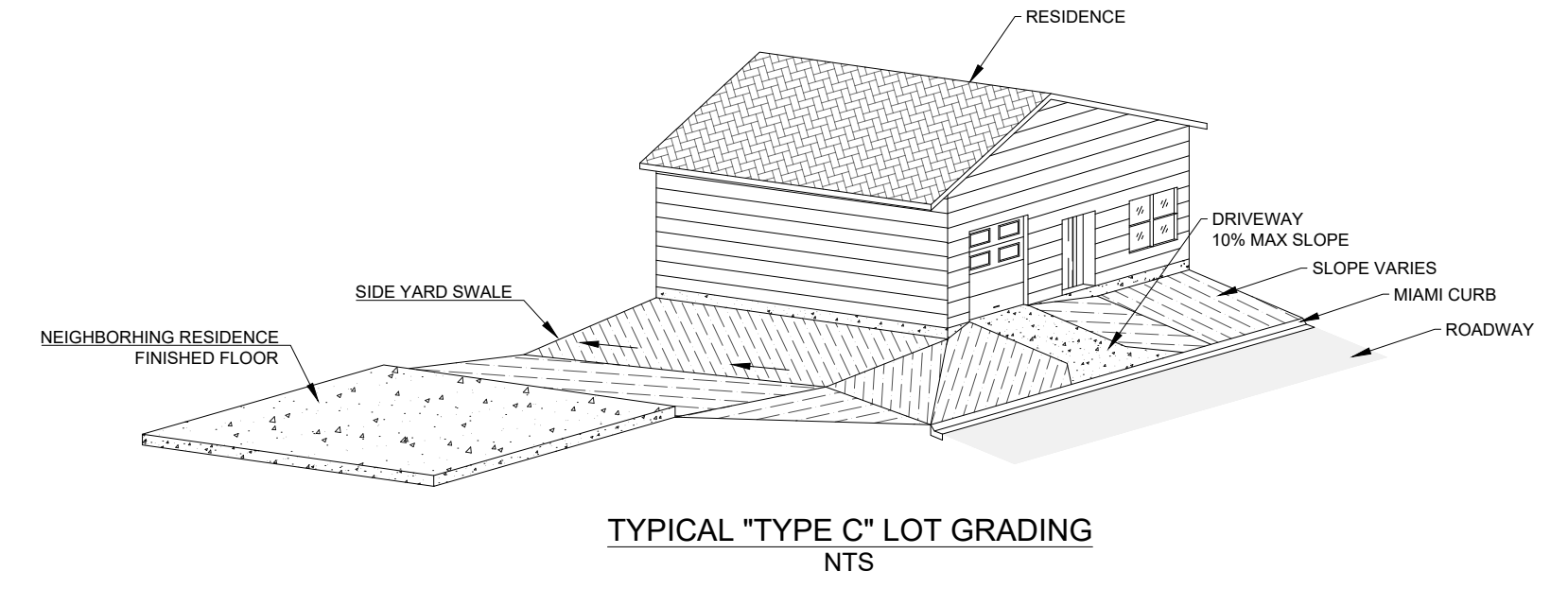
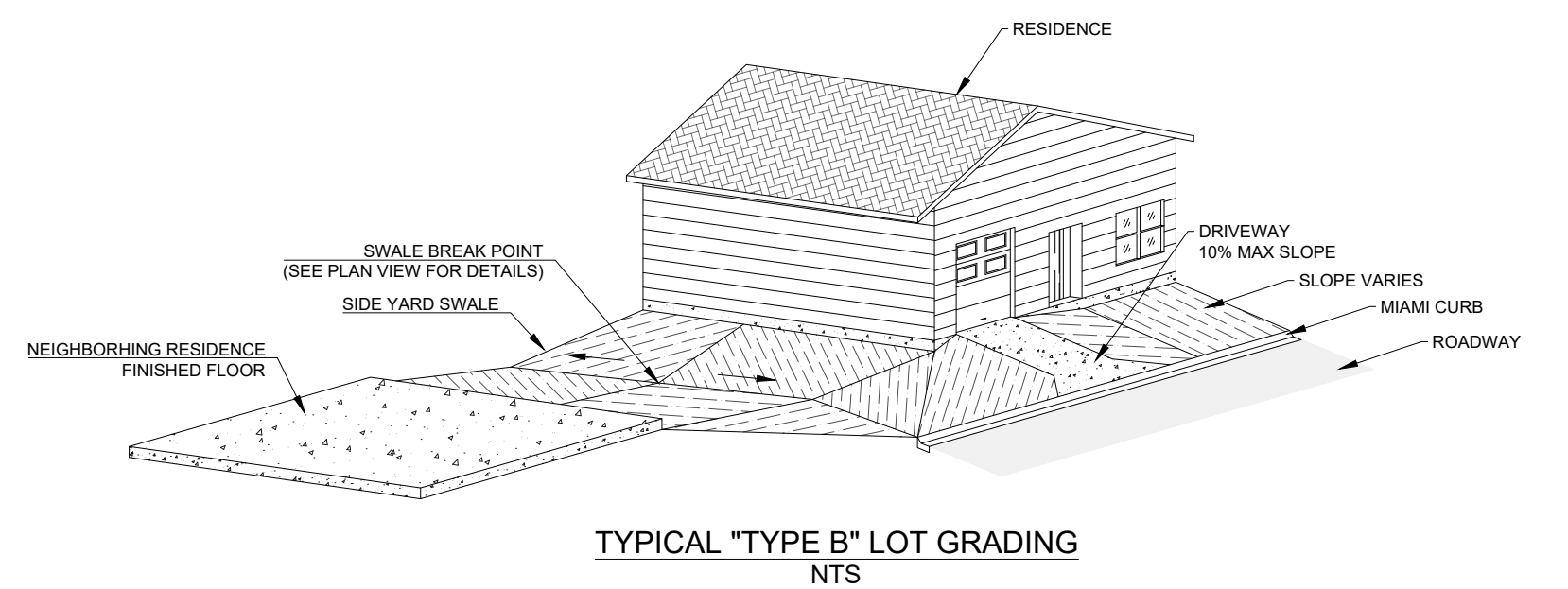
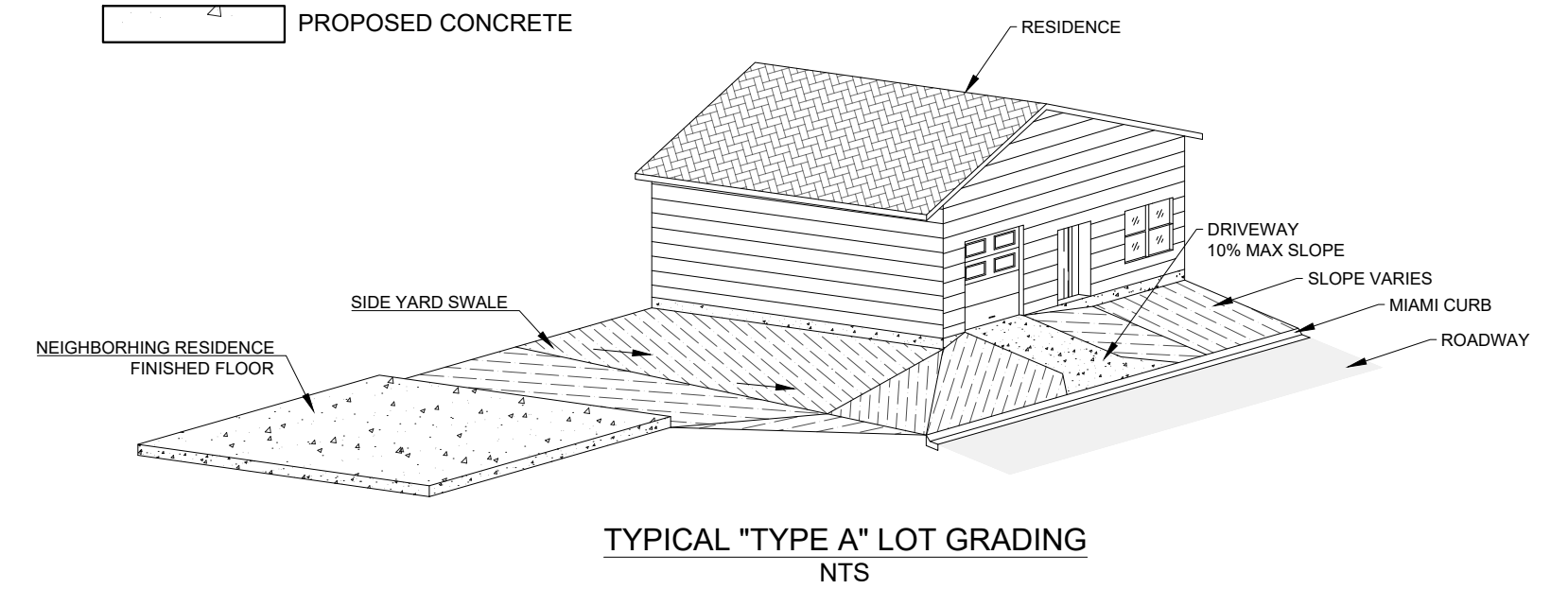
PROJECT # GE0082021
HOWEY IN THE HILLS, FLORIDA



GRADING LEGEND

- PROPOSED 85' X 50' BUILDING PAD
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED CONTOUR (PROPOSED WITH LOT 62 GRADING PLAN)
- PROPOSED SPOT ELEVATION
- PROPOSED STORMWATER PIPE
- PROJECT PROPERTY LINE
- EXTERIOR PARCEL LINE
- PROPOSED CONCRETE

****CAUTION****
EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE LOCATED WITHIN THE PROJECT AREA. THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THESE PLANS IS FOR REFERENCE INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



This item has been digitally signed and sealed by Christopher M. Germana, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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by Christopher M Germana
Date: 2021.12.02
14:17:58 -05'00'



CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
FIRM CERTIFICATE OF AUTHORIZATION # 29279

REVISIONS	DATE
1. REVISED PER CITY COMMENTS	11-22-2021

SUBDIVISION GRADING AND DRAINAGE PLAN

TALICHET PHASE 2 SUBDIVISION

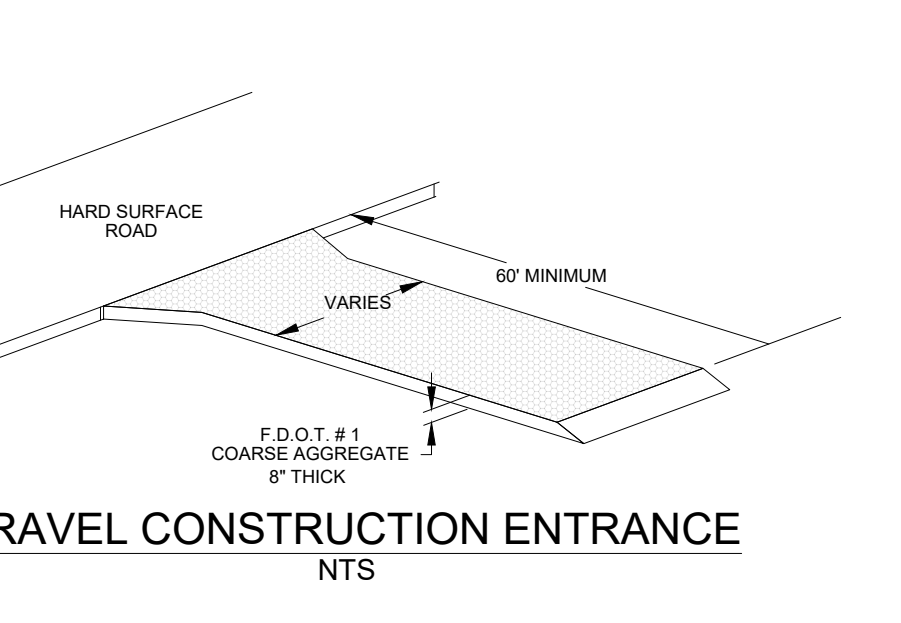
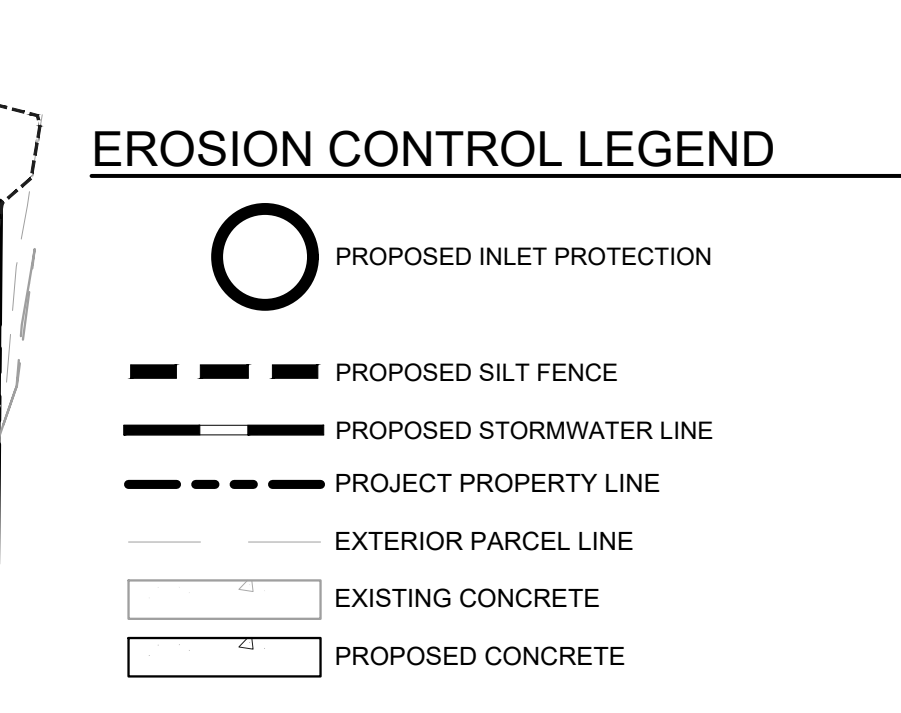
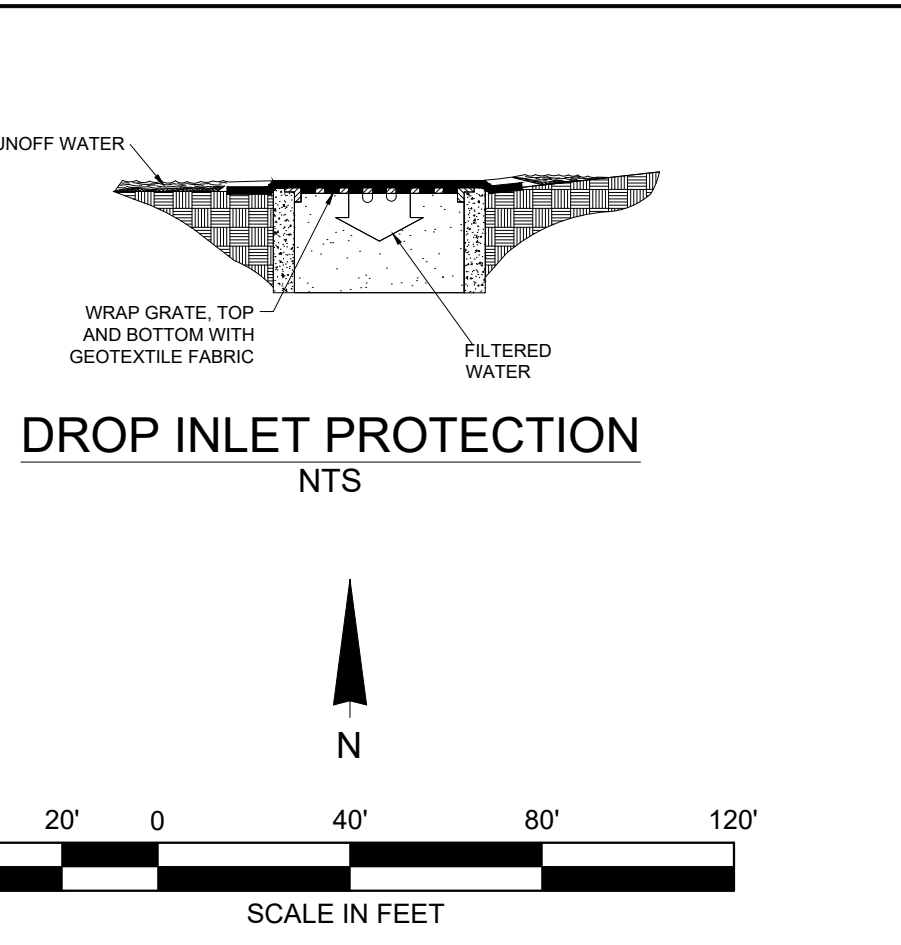
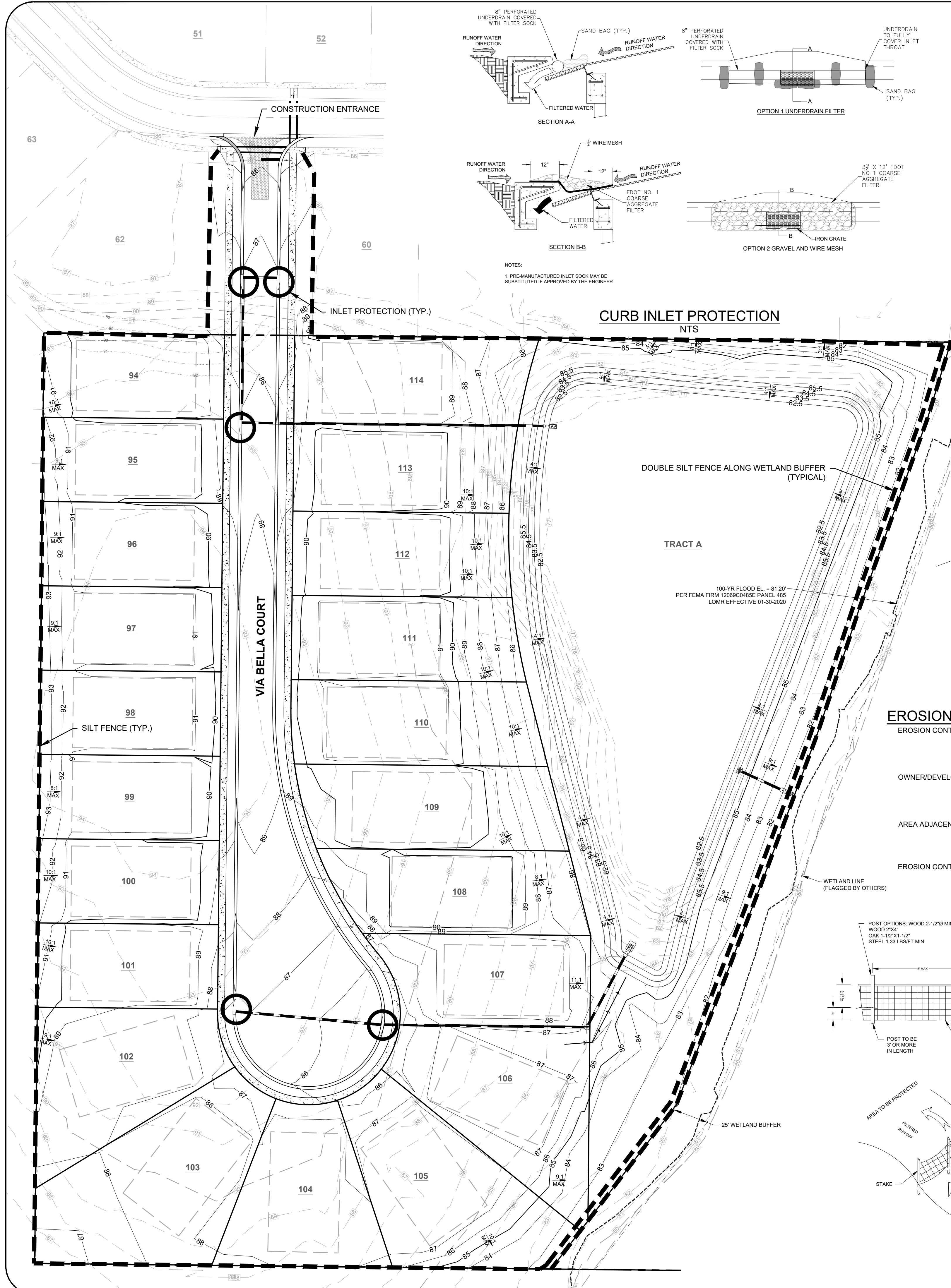
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DATE: 08-25-2021

SHEET
C5

PROJECT # GE0082021
HOWEY IN THE HILLS, FLORIDA



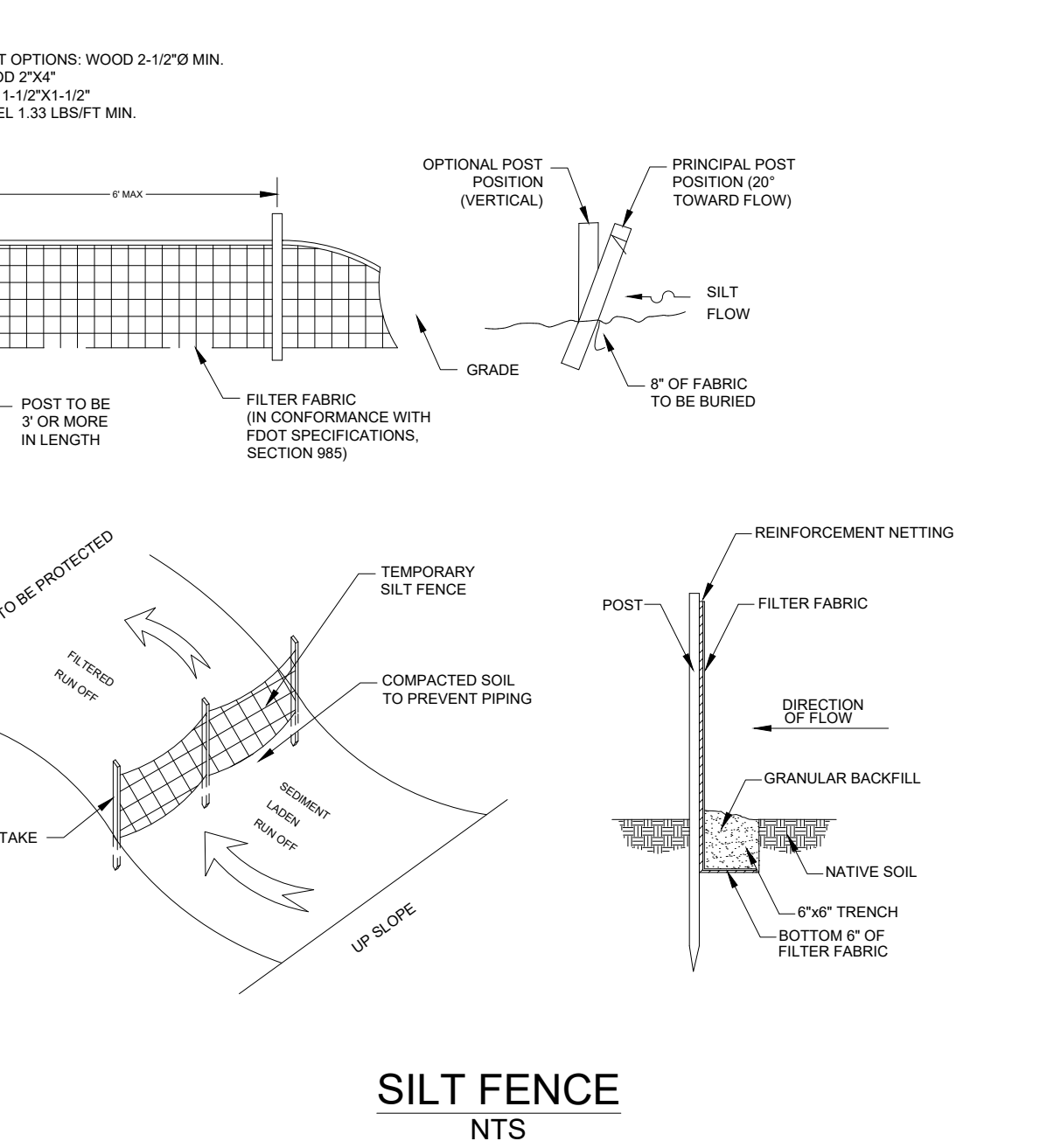
EROSION CONTROL SUMMARY

EROSION CONTROL DESIGNER: GERMANA ENGINEERING AND ASSOCIATES, LLC. CONTACT: CHRISTOPHER M. GERMANA, PE 1120 WEST MINNEOLA AVENUE CLERMONT, FLORIDA 34711 (352) 242-9329

OWNER/DEVELOPER: VENEZIA PARTNERS, LLC. CONTACT: RON ROBERTS 1190 BUSINESS CENTER DRIVE, SUITE 200 HEATHROW, FLORIDA 32746 (352) 335-5929

AREA ADJACENT TO SITE: THE SITE IS SURROUNDED ON THE EAST BY A WETLAND, TO THE NORTH BY A SINGLE FAMILY RESIDENTIAL SUBDIVISION (PHASE 1), TO THE SOUTH AND WEST BY VACANT LAND.

EROSION CONTROL MEASURES: EROSION AND RUNOFF WILL BE CONTROLLED BY SILT FENCE AND INLET PROTECTION AS NEEDED.



EROSION CONTROL NOTES

STORMWATER POLLUTION PREVENTION PLAN

- ATTENTION IS DRAWN TO THE FACT THAT THIS PROJECT IS PERMITTED UNDER THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION - GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE REQUIREMENTS OF THIS PERMIT, AND TO UNDERTAKE ANY MEASURES NECESSARY TO COMPLY WITH SAID REQUIREMENTS.
- IT MAY BE NECESSARY, DUE TO WEATHER CONDITIONS, PHASING OF CONSTRUCTION ACTIVITIES, QUANTITY AND TYPE OF MATERIALS, ETC., TO TAKE ADDITIONAL MEASURES TO COMPLY WITH THE N.P.D.S. PERMIT THAT ARE NOT OUTLINED IN THESE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR IMPLEMENTATION OF WHATEVER MEANS ARE NECESSARY TO PREVENT THE DISCHARGE OF POLLUTANTS, INCLUDING BUT NOT LIMITED TO TURBID WATER RUNOFF, AND FUGITIVE AIRBORNE PARTICULATE POLLUTANTS.
- THE CONTRACTOR IS FURTHER ADVISED THAT A SEPARATE STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) HAS BEEN PREPARED FOR THIS PROJECT AND IS HEREBY MADE PART OF THE CONSTRUCTION DOCUMENTS.
- THIS INFORMATION REPRESENTS THE MINIMUM AMOUNT OF EROSION AND SEDIMENT CONTROL MEASURES, IN THE OPINION OF THE ENGINEER, THAT MAY BE NECESSARY FOR ANY ADDITIONAL MEASURES OR PRACTICES THAT MAY BE NECESSARY TO CONTROL EROSION, TURBID DISCHARGE, FUGITIVE PARTICULATES, ETC., TO FULLY COMPLY WITH ALL GOVERNMENTAL RULES AND/OR PERMIT REQUIREMENTS.

GENERAL NOTES

- THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF-SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT.
- TEMPORARY EROSION CONTROL TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY THE ENGINEER OR AREAS ON SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY THE ENGINEER.
- PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICALLY EFFECTIVE, AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.
- NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED, AND SEEDED.

SEDIMENT FENCE

- THE SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.
- THE HEIGHT OF A SEDIMENT FENCE SHALL NOT EXCEED 36-INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).
- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
- POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
- A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1-INCH LONG, THE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLES OR WIRED TO THE FENCE, AND 8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSURE POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED IN SUCH A CASE. THE FILTER FABRIC IS STAPLED OR WIRE DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.
- THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
- SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

SEDIMENT FENCE MAINTENANCE

- SEDIMENT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC ON A SEDIMENT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SEDIMENT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

DITCH BARRIERS

- BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
- THE REMAINING STEPS FOR INSTALLING A STRAW BALE BARRIER FOR SHEET FLOW APPLICATIONS APPLY HERE, WITH THE FOLLOWING ADDITION.
- THE STRAW BALES SHALL BE INSTALLED SUCH THAT UNDERCUTTING BENEATH THE BALES IS MINIMIZED BY THE USE OF ROCK CHECK DAMS PLACED ADJACENT TO THE STRAW BALES.
- THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE TO ASSURE THAT SEDIMENT-LADEN RUNOFF WILL FLOW EITHER THROUGH OR OVER THE BARRIER BUT NOT AROUND IT.

DITCH BARRIER MAINTENANCE

- STRAW BALES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS, AND UNDERCUTTING BENEATH BALES.
- NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

TIMING OF SEDIMENT CONTROL PRACTICES

- SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL THROUGHOUT EARTH DISTURBING ACTIVITY.
- SETTLING FACILITIES, PERIMETER CONTROLS, AND OTHER PRACTICES INTENDED TO TRAP SEDIMENT SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS RESTABILIZED.

STABILIZATION OF NON-STRUCTURAL PRACTICES

- CONTROL PRACTICES SHALL PRESERVE EXISTING VEGETATION WHERE ATTAINABLE AND DISTURBED AREAS SHALL BE RE-VEGETATED AS SOON AS IT IS PRACTICAL AFTER GRADING OR CONSTRUCTION.
- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN FOURTEEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, AND SHALL ALSO BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE, WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED.

INLET PROTECTION

TEMPORARY EROSION CONTROL FEATURES SHALL BE ACCEPTABLY MAINTAINED AND SHALL BE REMOVED OR REPLACED BY THE ENGINEER AT NO COST TO THE OWNER. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

ALL STORM SEWER INLETS WHICH ACCEPT WATER RUNOFF FROM THE DEVELOPMENT AREA SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER WILL NOT ENTER THE STORM SYSTEM WITHOUT FIRST BEING PONDED AND FILTERED.

CONSTRUCTION ACCESS ROUTES

MEASURES SHALL BE TAKEN TO PREVENT SOIL TRANSPORT ONTO SURFACES OR PUBLIC ROADS WHERE RUNOFF IS NOT CHECKED.

SEDIMENT BARRIERS

SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE INTERCEPTED BY SEDIMENT BARRIERS. SEDIMENT BARRIERS SUCH AS A SEDIMENT FENCE OR DIVERSIONS TO SETTLING FACILITIES SHALL PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM SEDIMENT TRANSPORT BY SHEET FLOW.

STOCKPILES

ALL SOIL STOCKPILES SHALL BE PROTECTED FROM EROSION BY PERIMETER CONTROL DEVICES SUCH AS STRAW BALE DIKES OR FILTER FABRIC BARRIERS. PERIMETER CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

PERMANENT VEGETATION

PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL GROUND COVER IS ACHIEVED WHICH, IN THE OPINION OF THE ENGINEER, PROTECTS AND MAINTAINS THE PERIMETER CONTROL DEVICES FROM EROSION SATISFACTORILY AND TO SURVIVE ADVERSE WEATHER CONDITIONS.

INSPECTION SCHEDULE

- DIVERSION SWALE AND STRUCTURAL PROTECTION - INSPECT EVERY 7 DAYS OR AFTER EACH RAINSTORM PRODUCING RUNOFF. REPAIR AS REQUIRED.
- INLET PROTECTION - INSPECT FOR SEDIMENT ACCUMULATION AFTER EACH RAINFALL AND DAILY DURING CONTINUED RAINFALL. REPAIR OR REPLACE WHEN WATER FLOW IS RESTRICTED BY SEDIMENT.
- VEGETATIVE PLANTING - INSPECT AFTER SPROUTING OCCURS AND REPLANT BARE AREAS. INSPECT ESTABLISHED COVER EVERY 15 DAYS FOR DAMAGE; REPLANT AS REQUIRED. MAINTAIN ESTABLISHED COVER AT MAXIMUM 6' HEIGHT. IRRIGATE AS REQUIRED DURING DRY PERIODS TO MAINTAIN LIVE VEGETATION.

CONSTRUCTION SEQUENCE

- INSTALL SEDIMENT CONTROL MEASURES
- ROUGH GRADE SITE & STOCKPILE TOPSOIL
- TEMPORARY VEGETATION
- INSTALL STORM WATER MANAGEMENT MEASURES
- INSTALL ROAD & PARKING BASE
- SURFACE ROADS & PARKING
- FINAL GRADING
- PERMANENT VEGETATION
- INSTALLING LANDSCAPING
- PERFORM CONTINUING MAINTENANCE

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Date: 2021.12.02 14:19:20 -05'00'

CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
FIRM CERTIFICATE OF AUTHORIZATION # 29279

STORMWATER POLLUTION PREVENTION PLAN

TALICHET PHASE 2 SUBDIVISION

DATE: 11-22-2021

REVISIONS: 1. REVISED PER CITY COMMENTS

PROJECT # GE0082021

HOWEY IN THE HILLS, FLORIDA

GERMANA ENGINEERING AND ASSOCIATES, LLC
1120 WEST MINNEOLA AVENUE
CLERMONT, FL 34711
(352) 242-9329
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DATE: 08-25-2021

SHEET C7

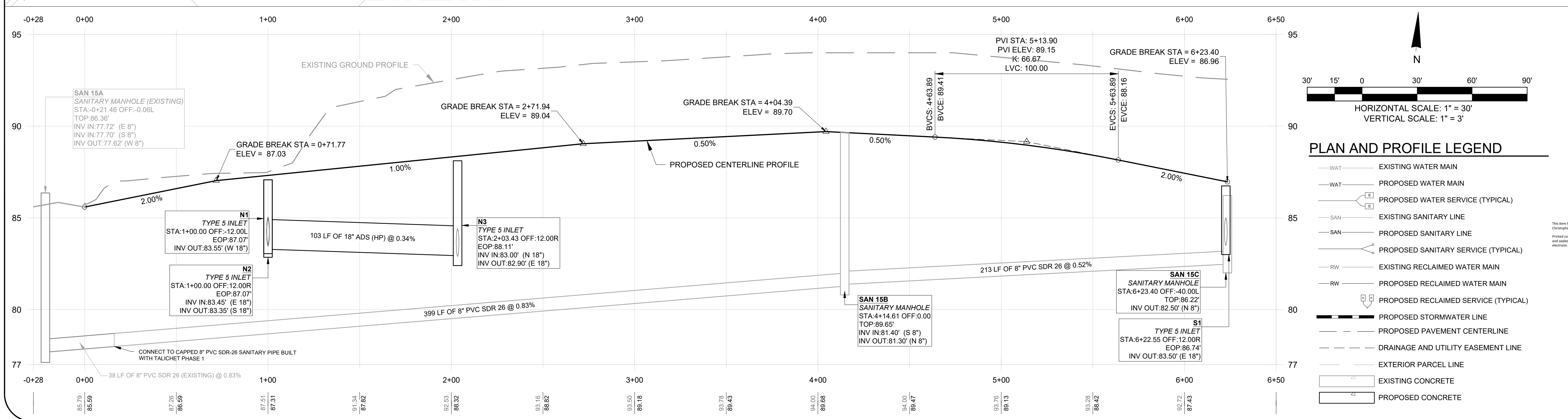
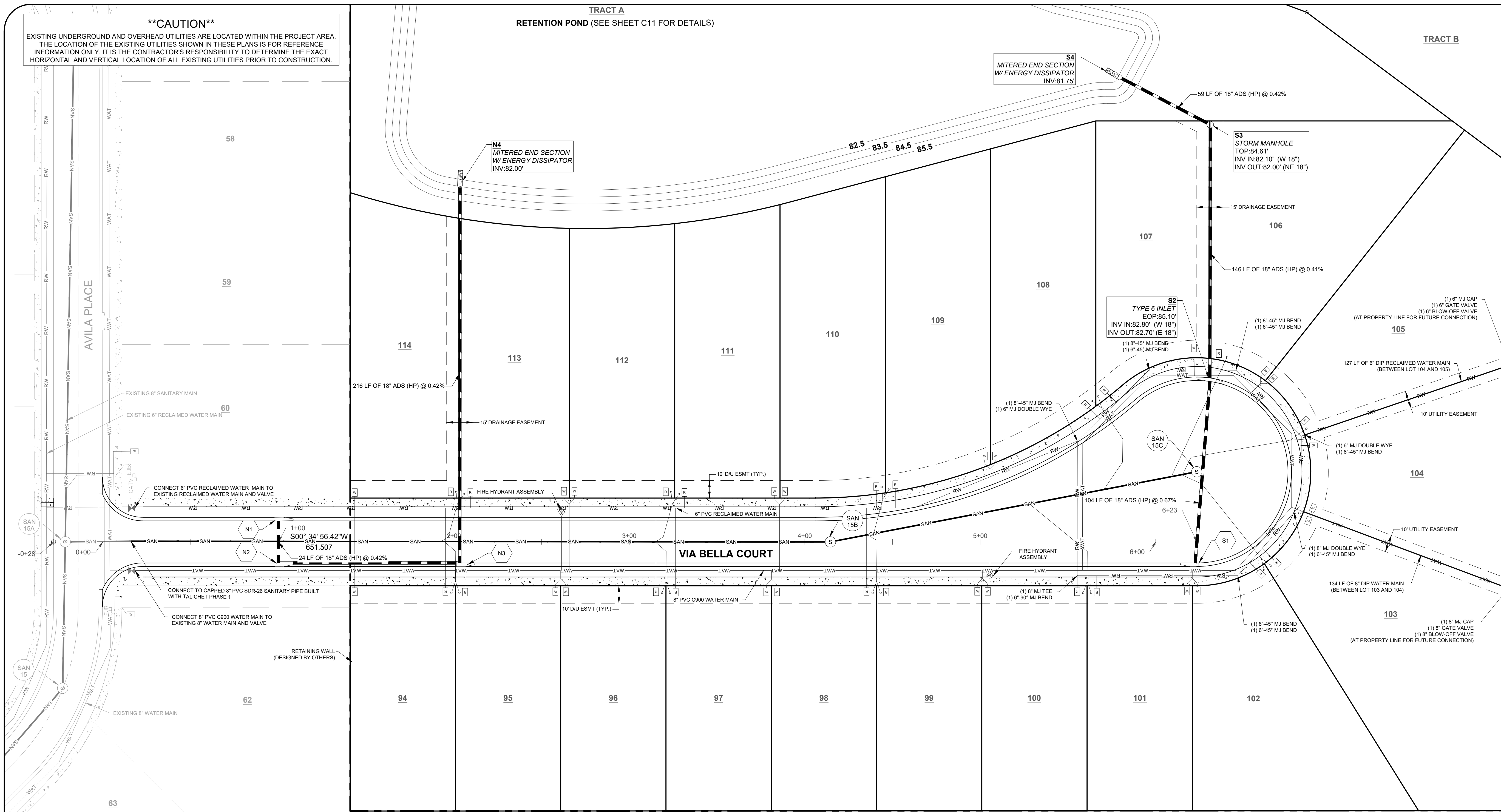
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TRACT A
 RETENTION POND (SEE SHEET C11 FOR DETAILS)

TRACT B

ALT KEY
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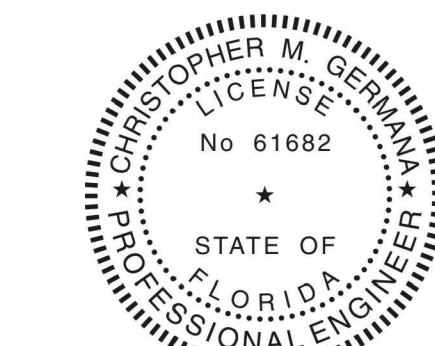


PLAN AND PROFILE LEGEND

- WAT — EXISTING WATER MAIN
- WAT — PROPOSED WATER MAIN
- S — PROPOSED WATER SERVICE (TYPICAL)
- SAN — EXISTING SANITARY LINE
- SAN — PROPOSED SANITARY LINE
- S — PROPOSED SANITARY SERVICE (TYPICAL)
- RW — EXISTING RECLAIMED WATER MAIN
- RW — PROPOSED RECLAIMED WATER MAIN
- S — PROPOSED RECLAIMED SERVICE (TYPICAL)
- S — PROPOSED STORMWATER LINE
- — PROPOSED PAVEMENT CENTERLINE
- — DRAINAGE AND UTILITY EASEMENT LINE
- — EXTERIOR PARCEL LINE
- — EXISTING CONCRETE
- — PROPOSED CONCRETE

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CHRISTOPHER M. GERMANA, P.E.
 FLORIDA PROFESSIONAL ENGINEER # 61682
 FIRM CERTIFICATE OF AUTHORIZATION # 29279

VIA BELLA COURT
 PLAN AND PROFILE

TALICHET PHASE 2
 SUBDIVISION

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 AND ASSOCIATES, LLC
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 CLEMONT, FL 34711
 (352) 242-9329
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SCALE: 1" = 30'

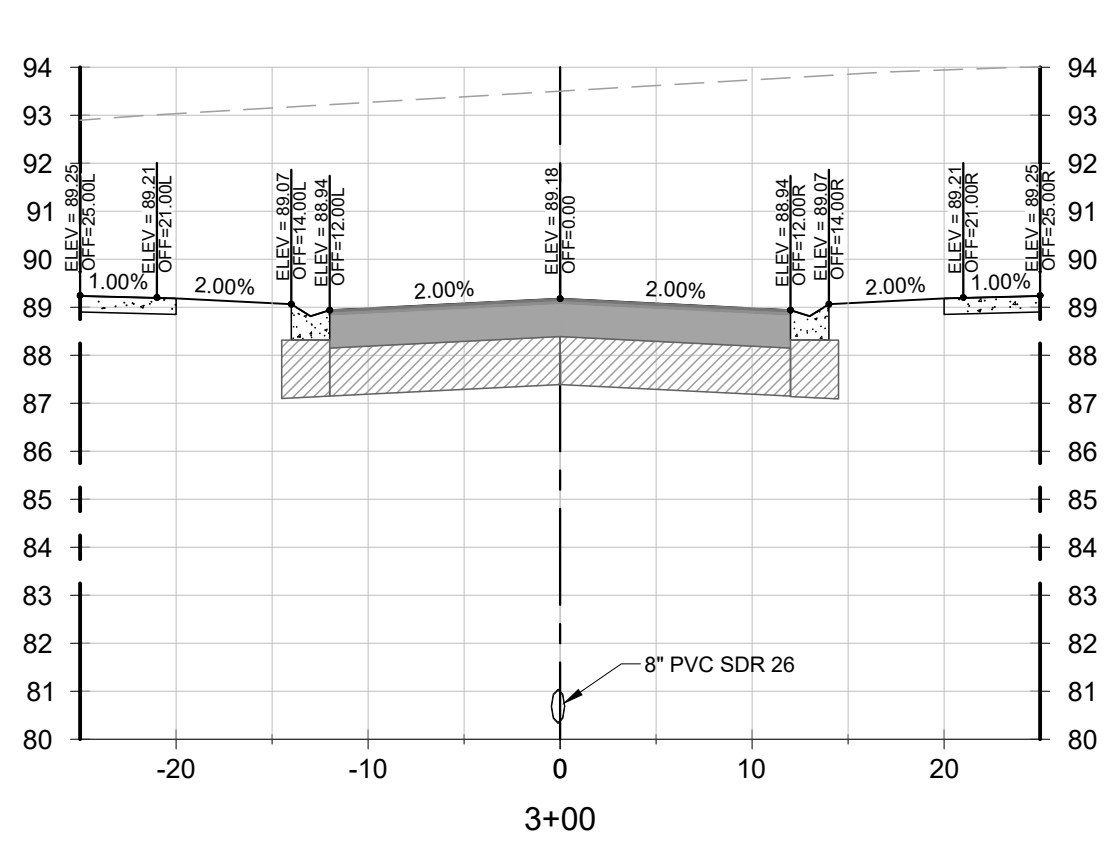
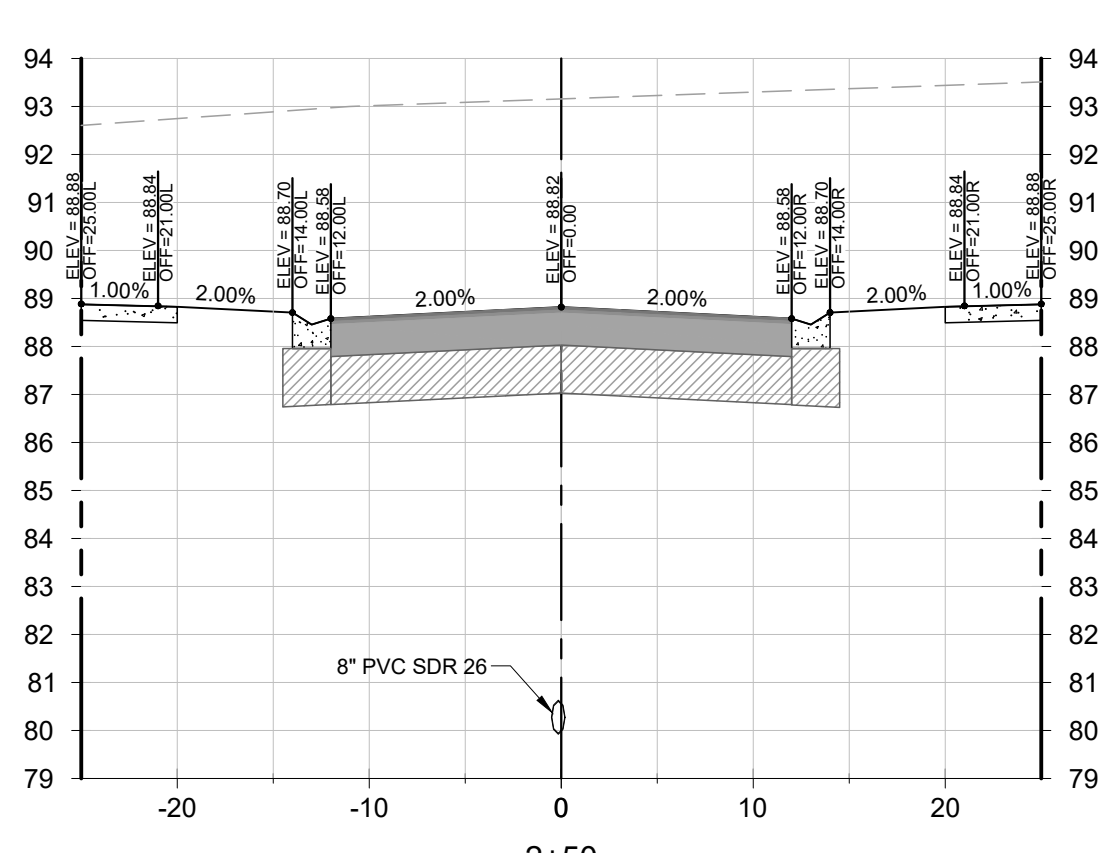
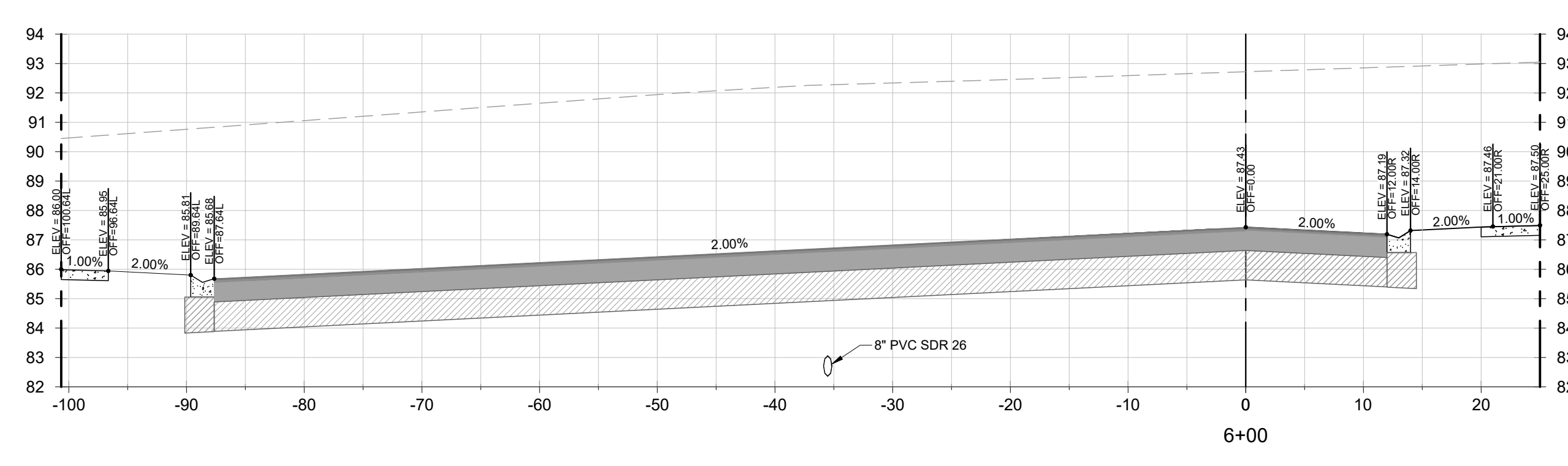
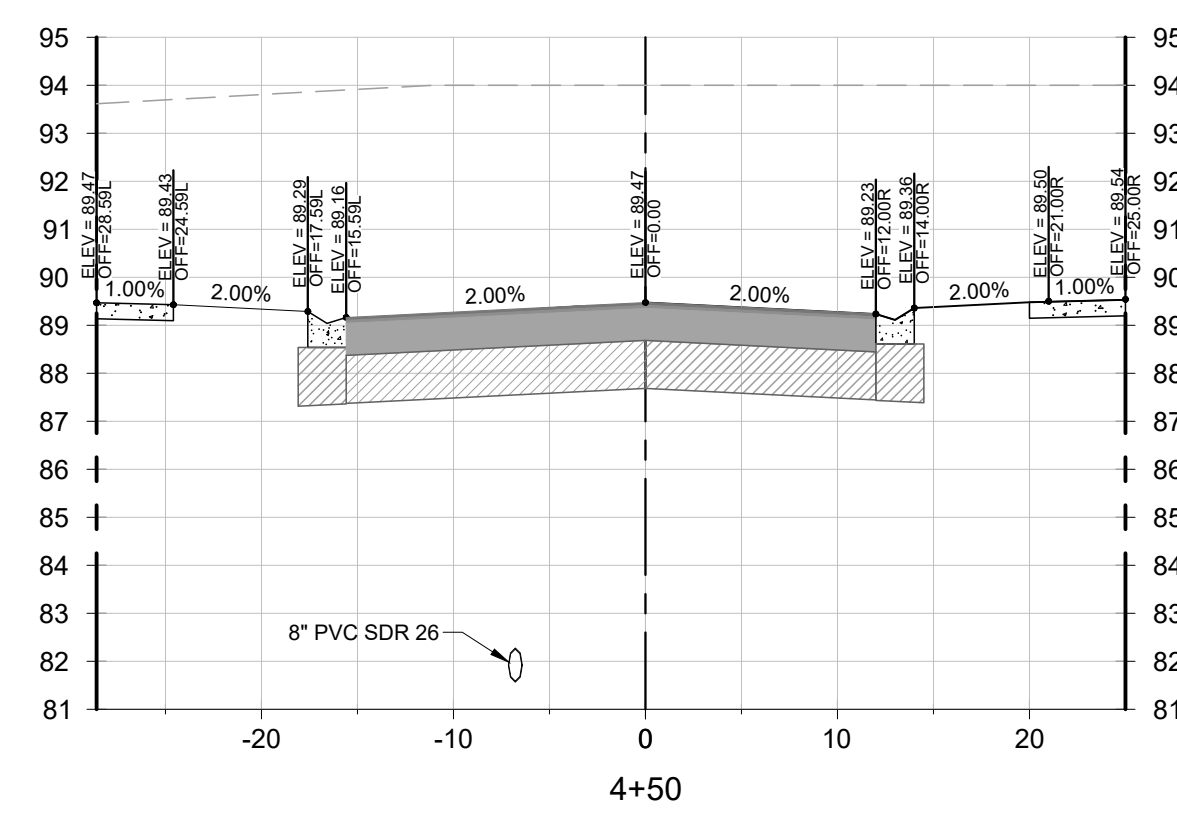
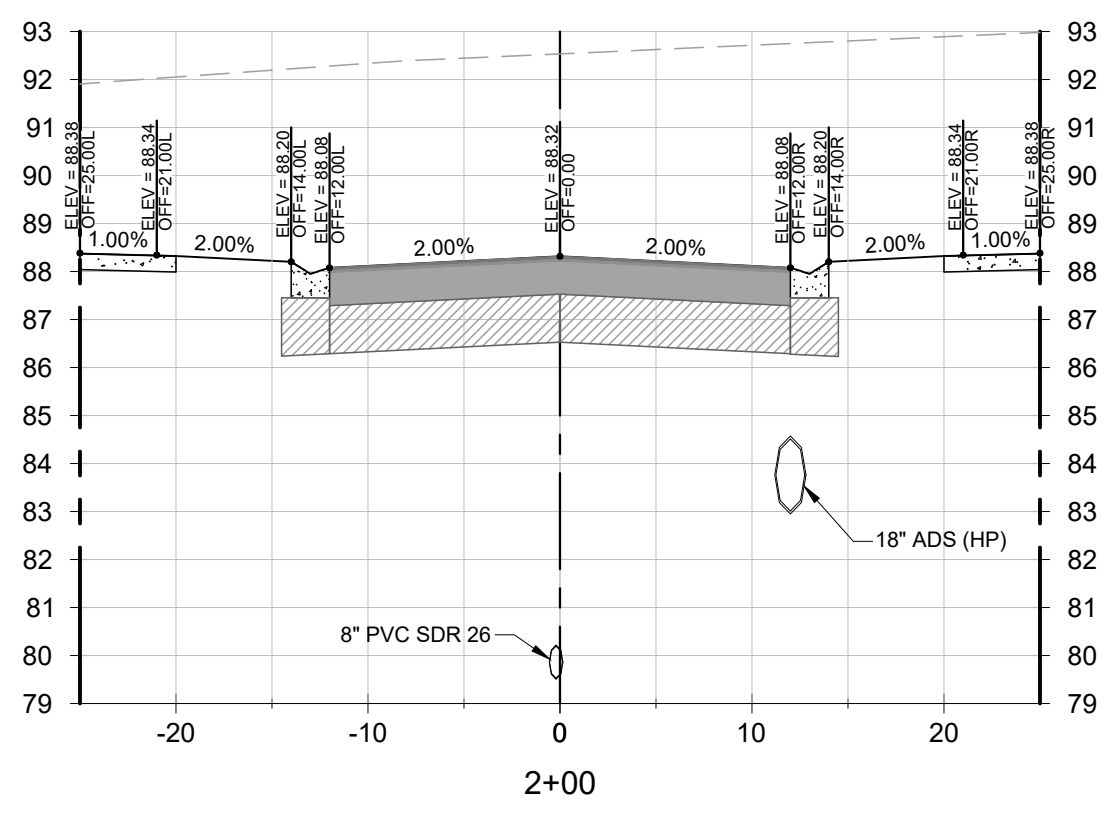
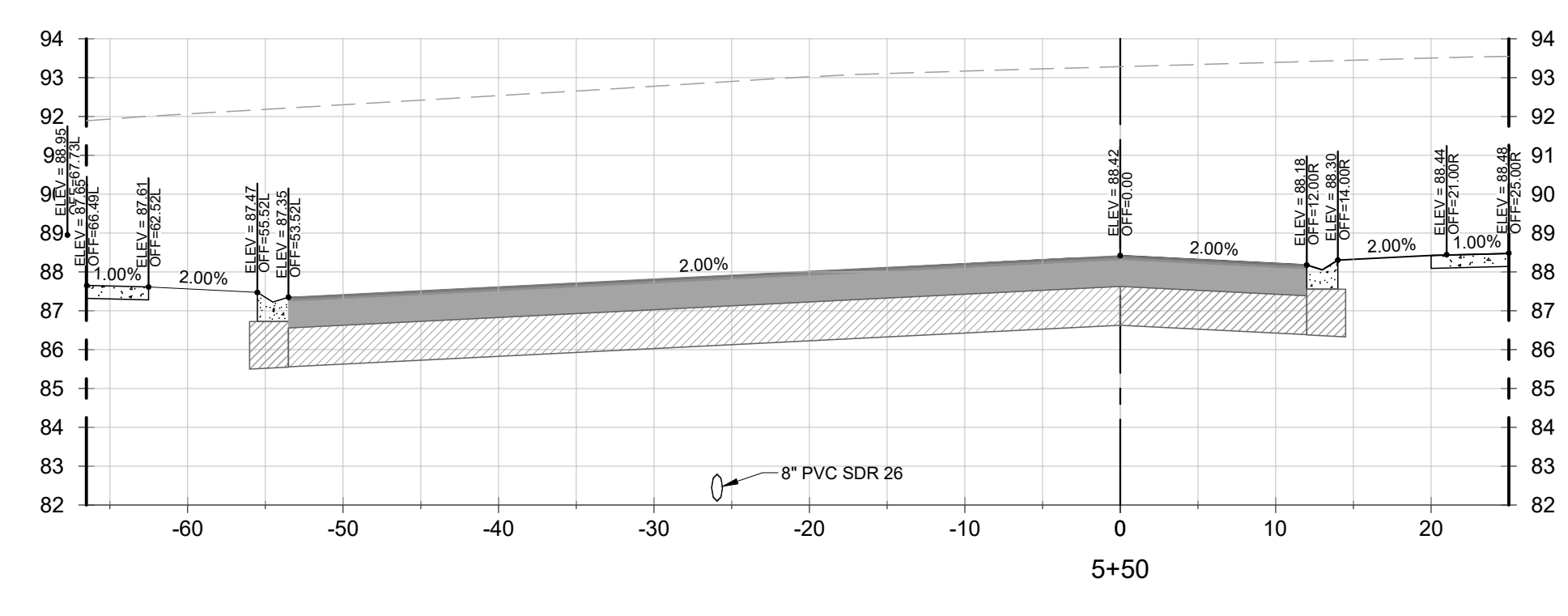
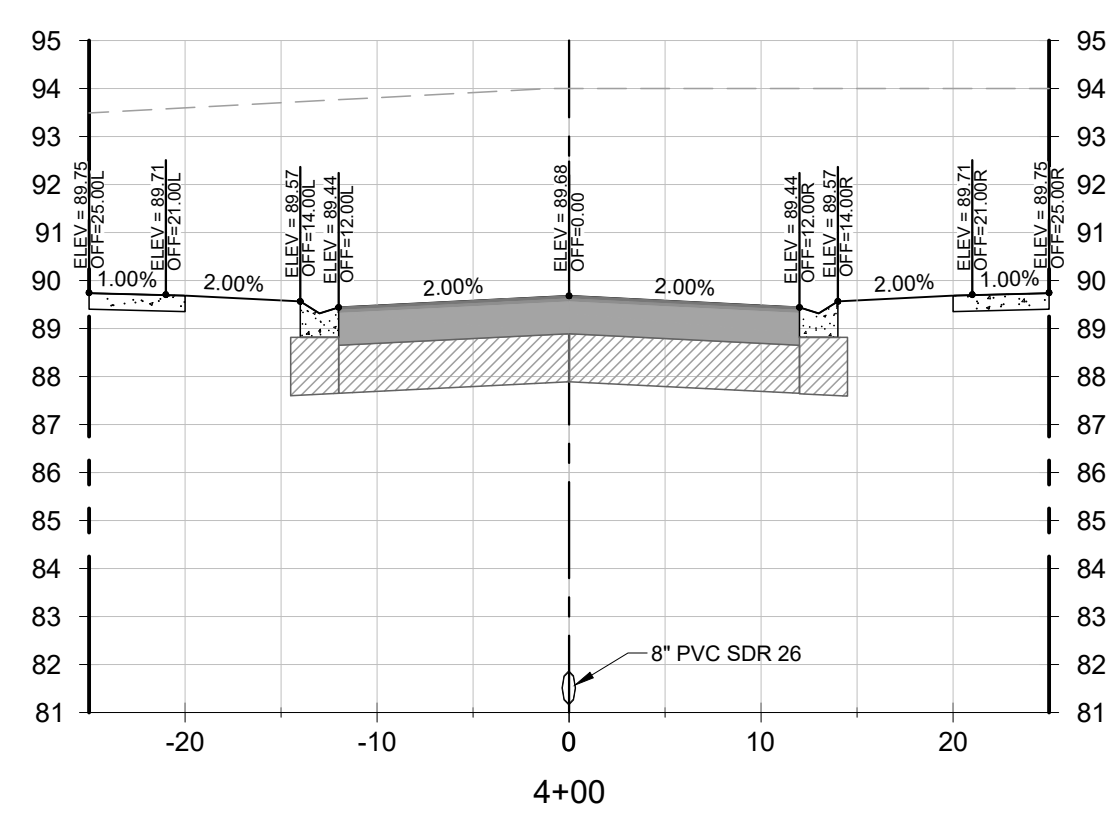
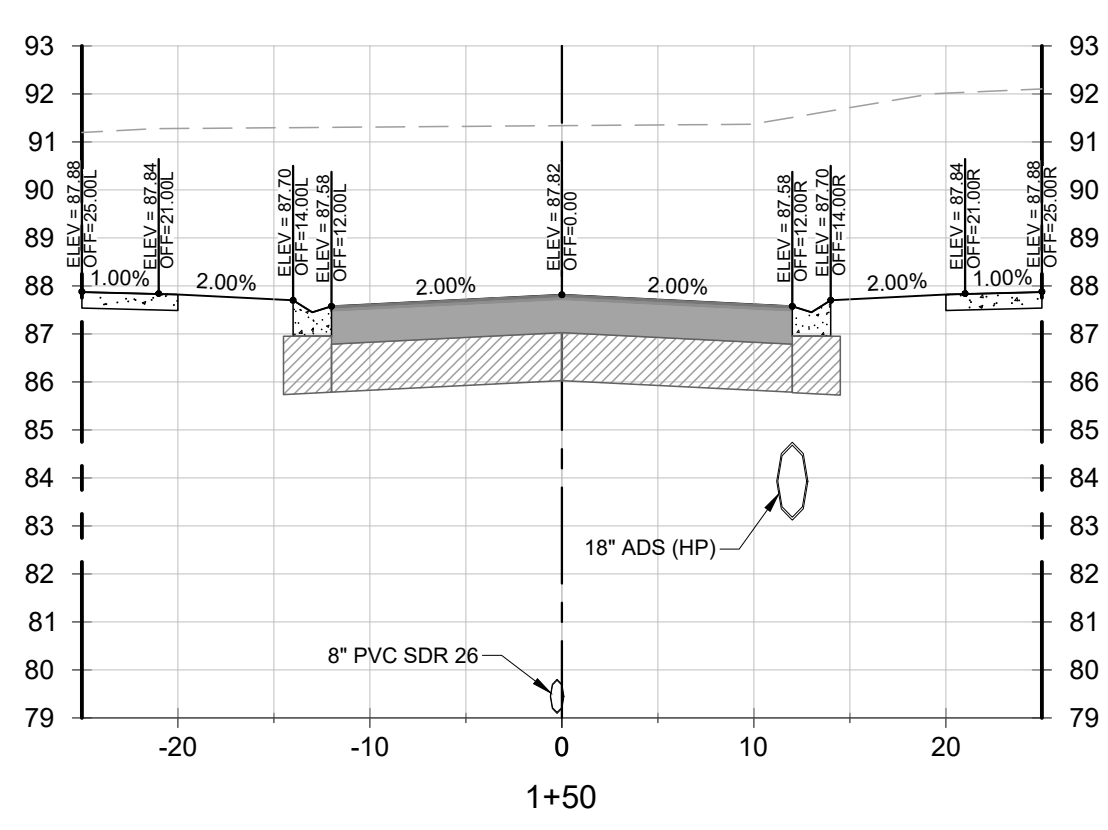
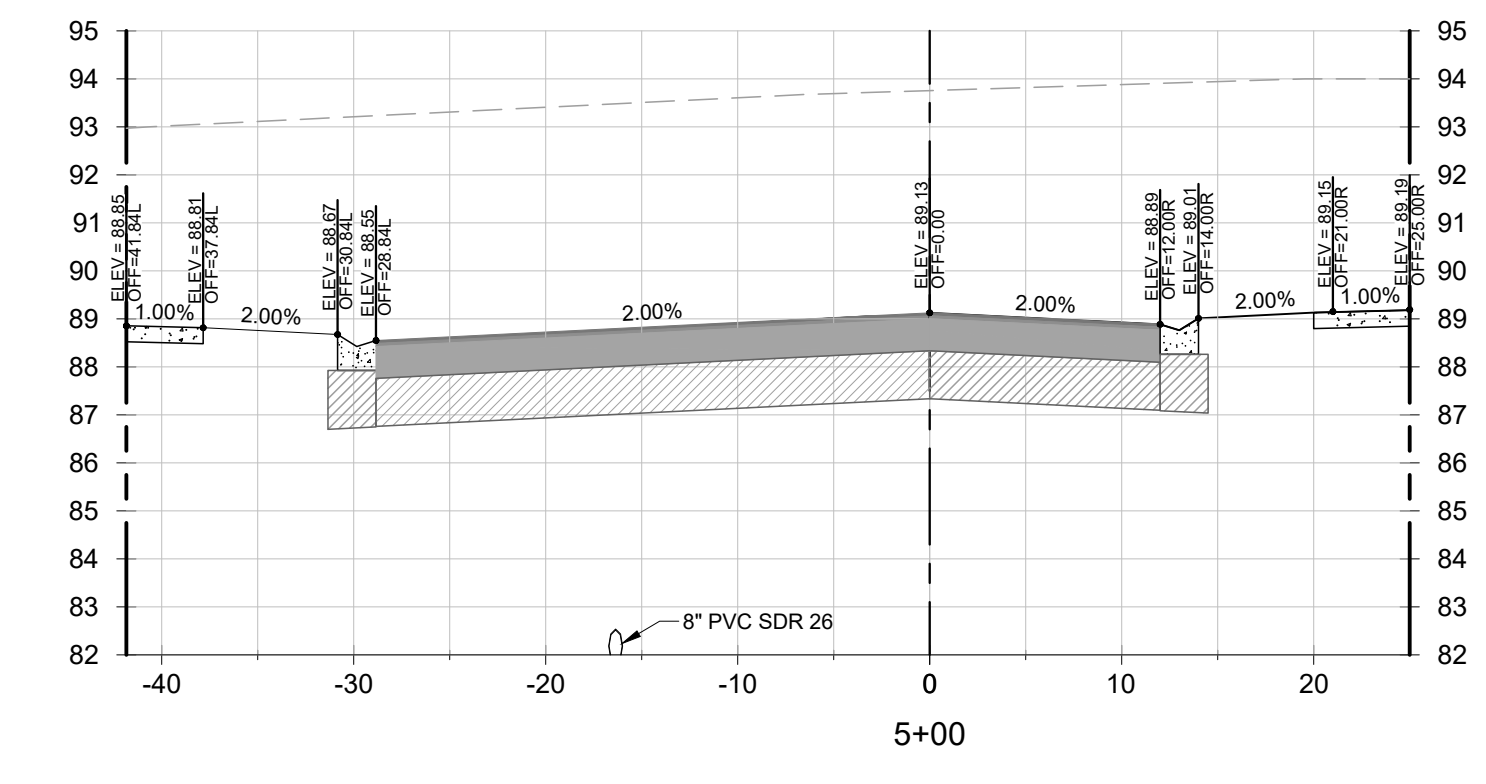
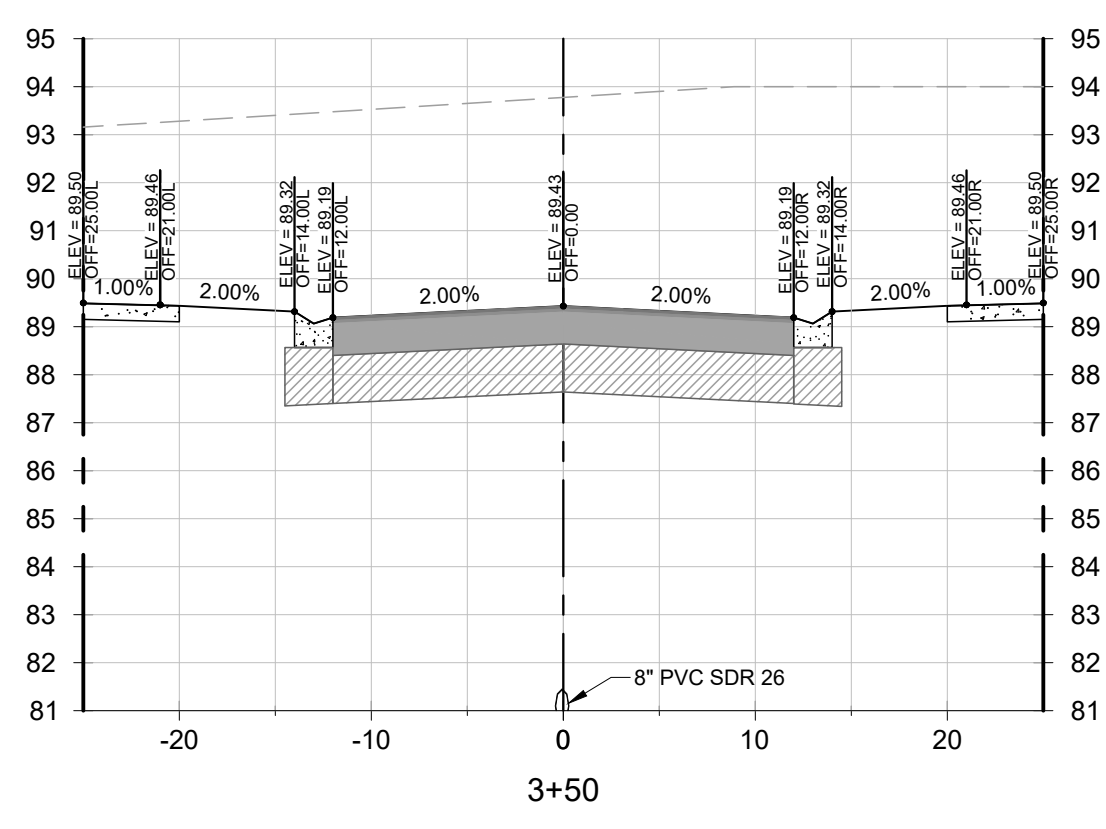
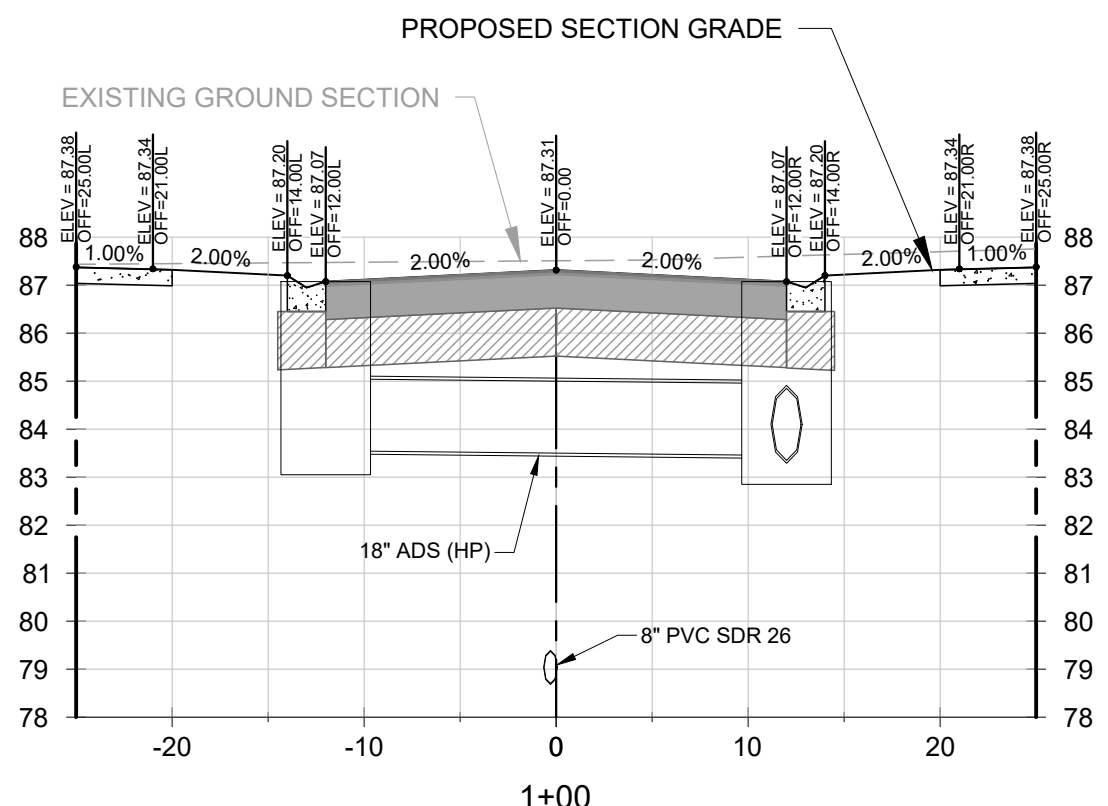
DATE: 08-25-2021

SHEET
C8

No.	REVISIONS	DATE
1.	REVISED PER CITY COMMENTS	11-22-2021

PROJECT # GE0082021

HOWEY IN THE HILLS, FLORIDA



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by Christopher
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Date: 2021.12.02
14:20:30 -05'00'



CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
FIRM CERTIFICATE OF AUTHORIZATION # 29279

No.	REVISIONS	DATE

VIA BELLA COURT
CROSS SECTIONS

TALICHET PHASE 2
SUBDIVISION

PROJECT # GE0082021

HOWEY IN THE HILLS, FLORIDA

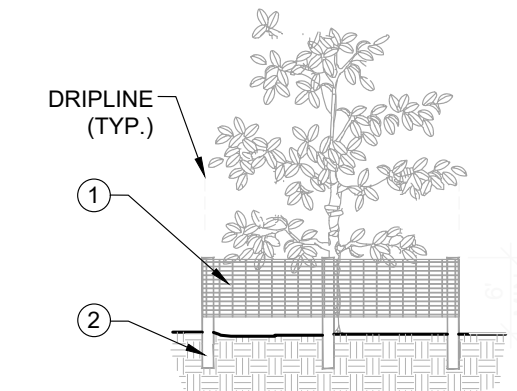
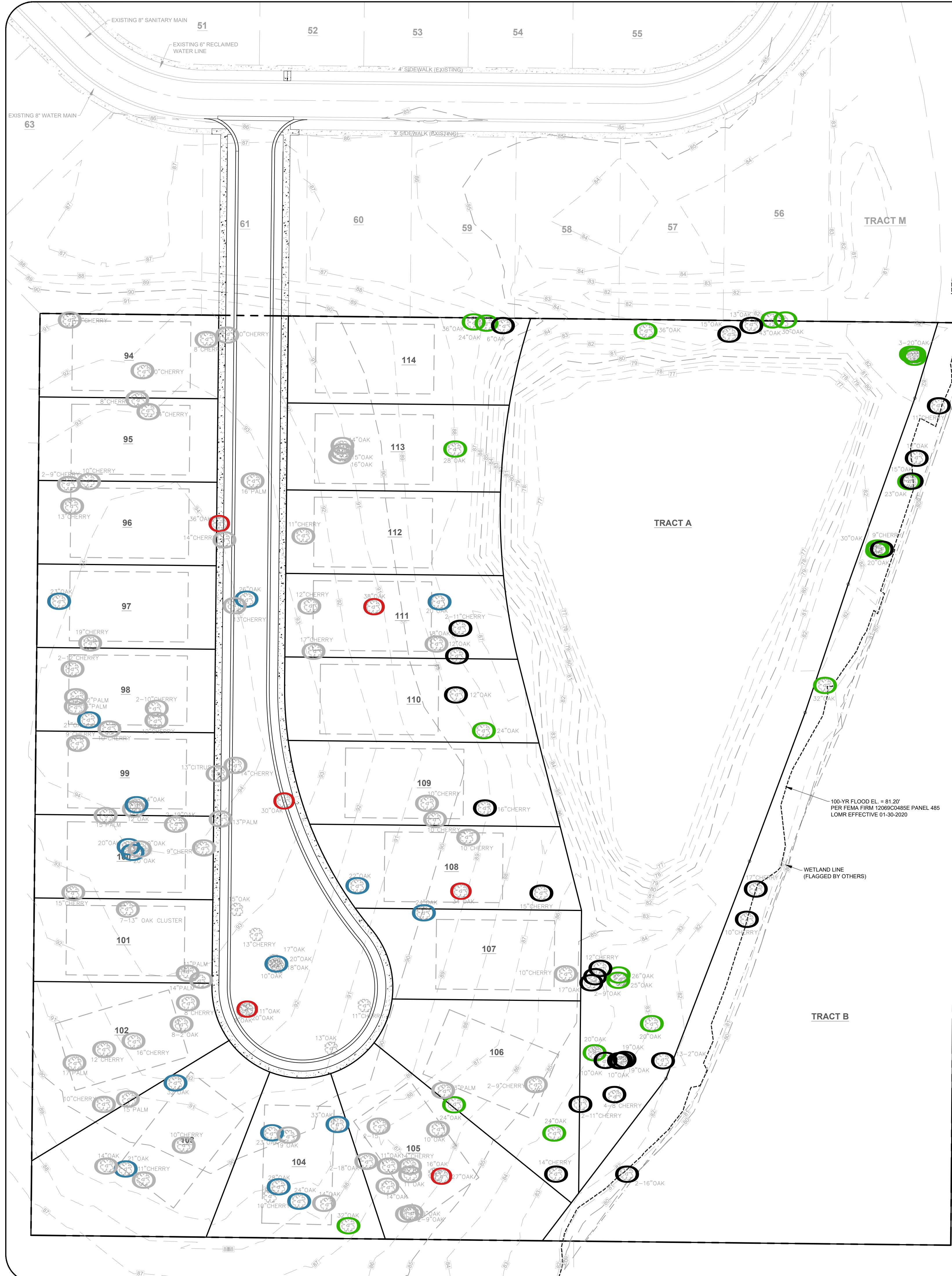
GERMANA ENGINEERING
AND ASSOCIATES, LLC
1120 WEST MINNEOLA AVENUE
CLERMONT, FL 34711
WWW.GERMANAENGINEERING.COM
CERTIFICATE AUTHORIZATION NUMBER 29279
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SCALE: 1" = 10'

DATE: 08-25-2021

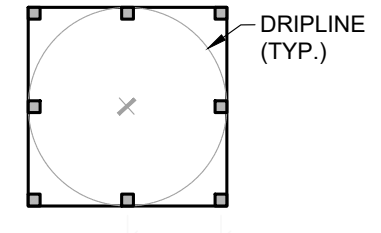
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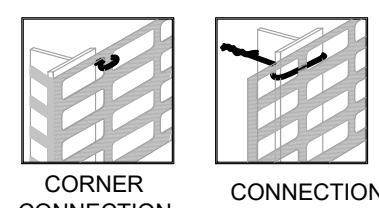


- 6" "PERIMETER PLUS" CONSTRUCTION FENCE BY CONWED PLASTICS OR OWNER'S REPRESENTATIVE APPROVED EQUAL. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
- 8' TALL METAL "T" POSTS OR 2" x 8" PRESSURE TREATED WOOD POSTS WITH 24" BURIAL BELOW GRADE.

ELEVATION



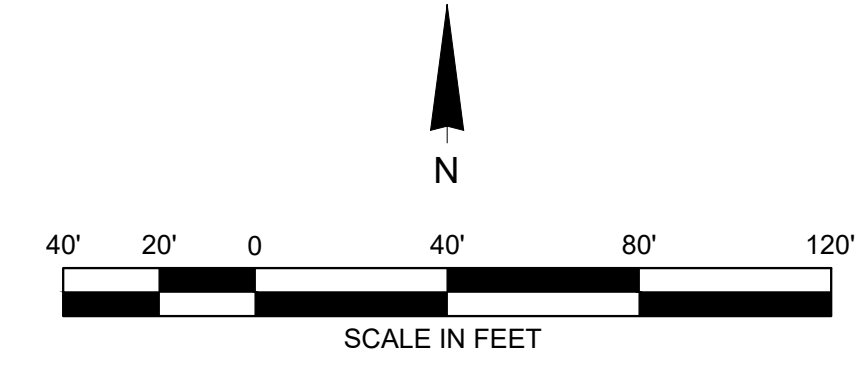
PLAN VIEW



Tree/Shrub Protector

Barrier Detail

NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.



LEGEND

- EXTERIOR PARCEL LINE
- EXISTING CONCRETE
- EXISTING CONTOUR
- NON-SPECIMEN TREE TO BE REMOVED
- NON-SPECIMEN TREE TO REMAIN AND BE PROTECTED DURING CONSTRUCTION
- SPECIMEN TREE TO BE REMOVED (PER ARBORIST REPORT)
- SPECIMEN TREE TO BE REMOVED
- SPECIMEN TREE TO REMAIN AND BE PROTECTED DURING CONSTRUCTION

TREE MITIGATION CALCULATIONS

TOTAL SPECIMEN TREES (>20" DBH): 43
 REMOVED PER ARBORIST REPORT: 6
 REMAINING SPECIMEN TREES: 37
 SPECIMEN TREES TO BE REMOVED (>20" DBH): 16
 SPECIMEN TREES TO REMAIN (>20" DBH): 21 (56.76% TO REMAIN)
 50% OF SPECIMEN TREES TO REMAIN ON SITE; NO MITIGATION REQUIRED (PER LDR 7.11.03)

****CAUTION****
 EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE LOCATED WITHIN THE PROJECT AREA. THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THESE PLANS IS FOR REFERENCE INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

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CHRISTOPHER M. GERMANA, P.E.
 FLORIDA PROFESSIONAL ENGINEER # 61682
 FIRM CERTIFICATE OF AUTHORIZATION # 29279

DATE	REVISIONS
11-22-2021	1. REVISED PER CITY COMMENTS

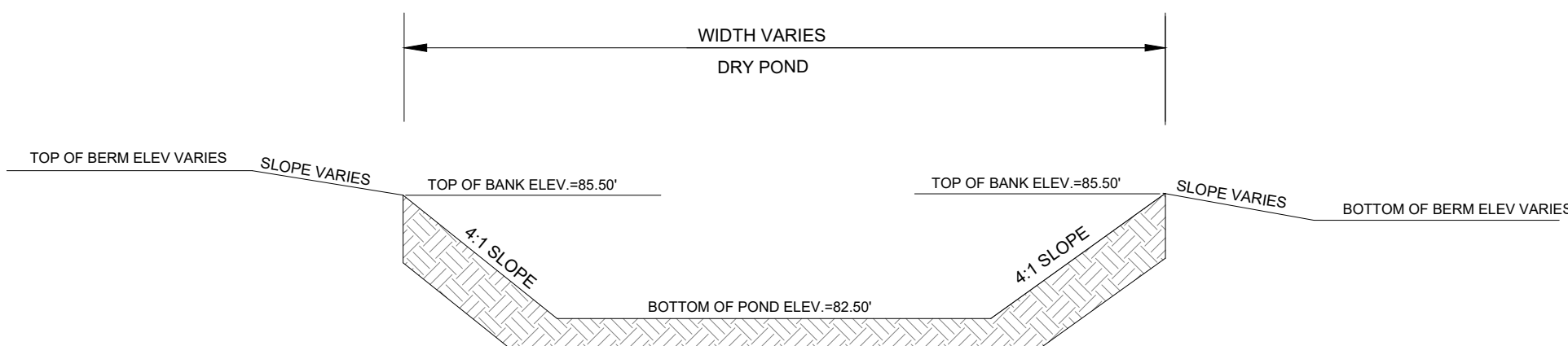
TREE REMOVAL PLAN

TALICHET PHASE 2 SUBDIVISION

GERMANA ENGINEERING AND ASSOCIATES, LLC
 1120 WEST MINNEOLA AVENUE
 CLEMONT, FL 34711
 (352) 242-9929
 WWW.GERMANAENGINEERING.COM
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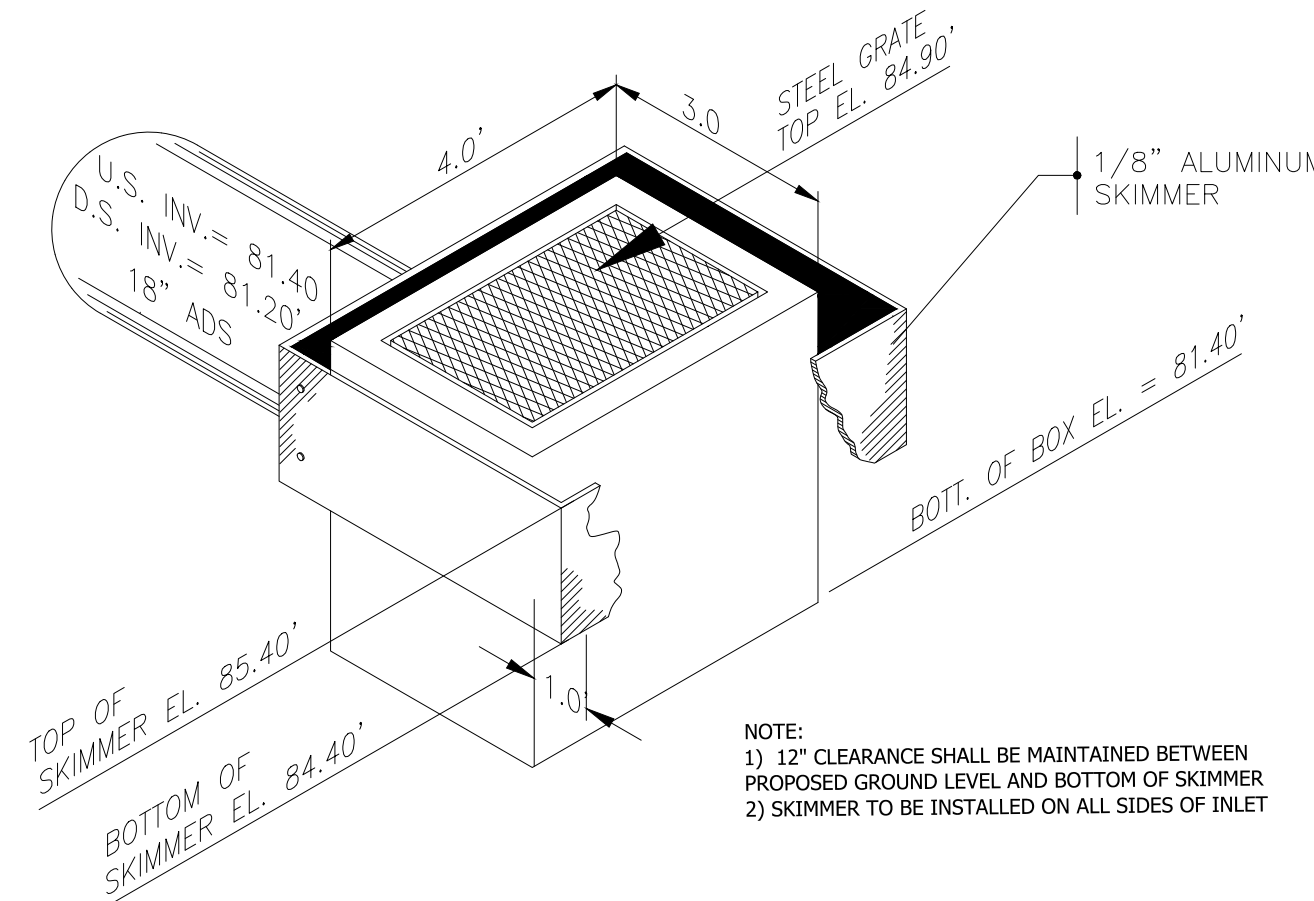
SCALE: 1" = 40'
DATE: 08-25-2021
SHEET C10

PROJECT # GE0082021
 HOWEY IN THE HILLS, FLORIDA



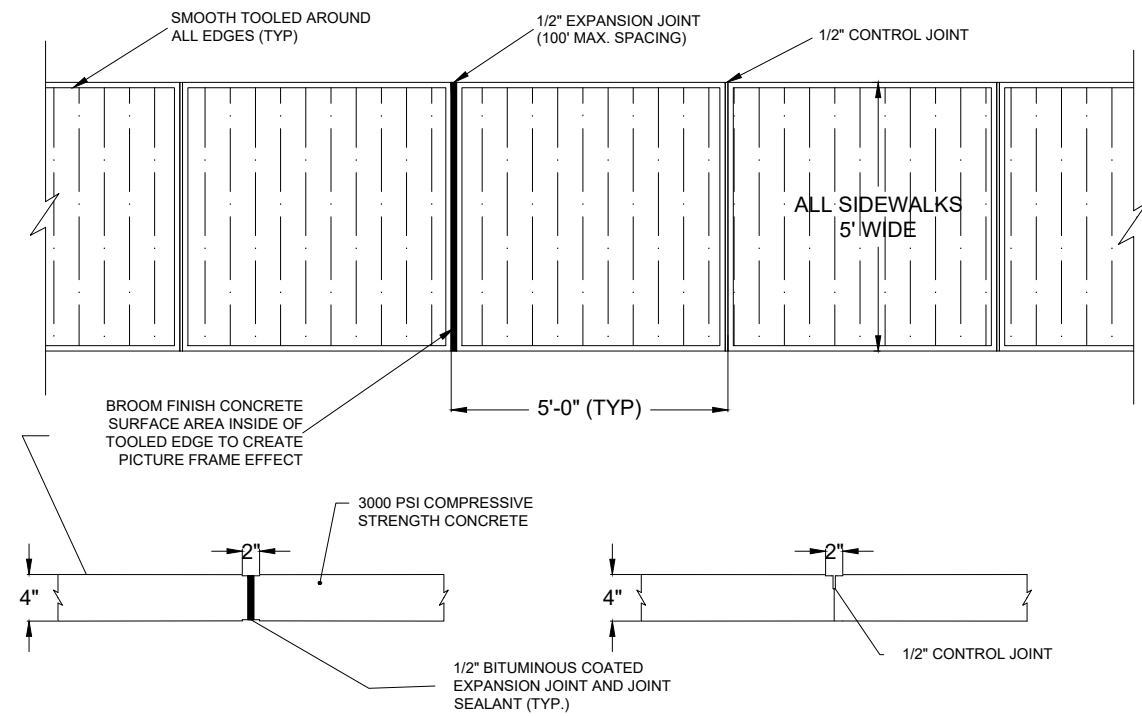
- NOTES
1. BAHIA SOD SHALL BE USED ON POND SLIDE SLOPES AND BERM. NON-MUCK GROWN SOD SHALL BE INSTALLED
 2. THE POND BOTTOM AREA SHOULD BE STRIPPED AND CLEARED OF TREES, SURFACE VEGETATION, TOP SOIL, ROOT LADEN SOILS, DEBRIS, AND ANY DELETERIOUS OR CLAYEY MATERIAL. POND BOTTOM TO BE SEEDED WITH ARGENTINE BAHIA SEEDS.
 3. IF CLAYEY SOILS ARE ENCOUNTERED DURING GRADING OF THE POND, IT SHOULD BE OVER EXCAVATED TO A DEPTH OF 3 FEET BELOW THE POND BOTTOM AND REPLACED WITH CLEAN FINE SANDS. ALL FILL SHALL BE GRANULAR SOIL WITH LESS THAN 5% PASSING THROUGH THE NUMBER 200 SIEVE AT A MINIMUM PERMEABILITY RATE OF 10 FT/DAY

TYPICAL POND SECTION
NTS

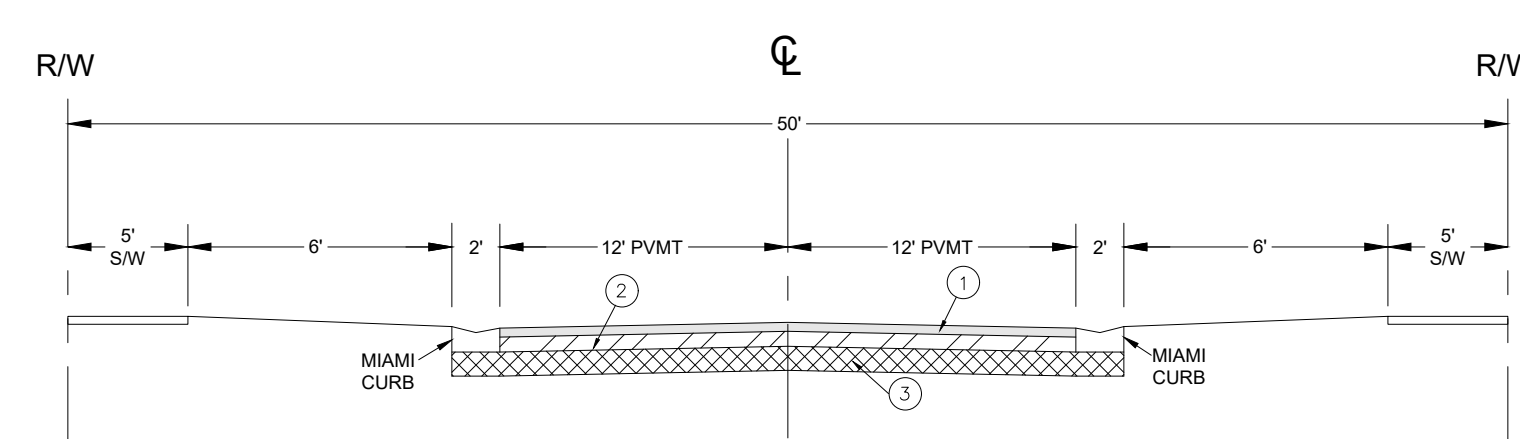


- NOTE:
- 1) 12" CLEARANCE SHALL BE MAINTAINED BETWEEN PROPOSED GROUND LEVEL AND BOTTOM OF SKIMMER
 - 2) SKIMMER TO BE INSTALLED ON ALL SIDES OF INLET

POND CONTROL STRUCTURE (CS)
(TYPE C INLET PER FOOT INDEX)
NTS

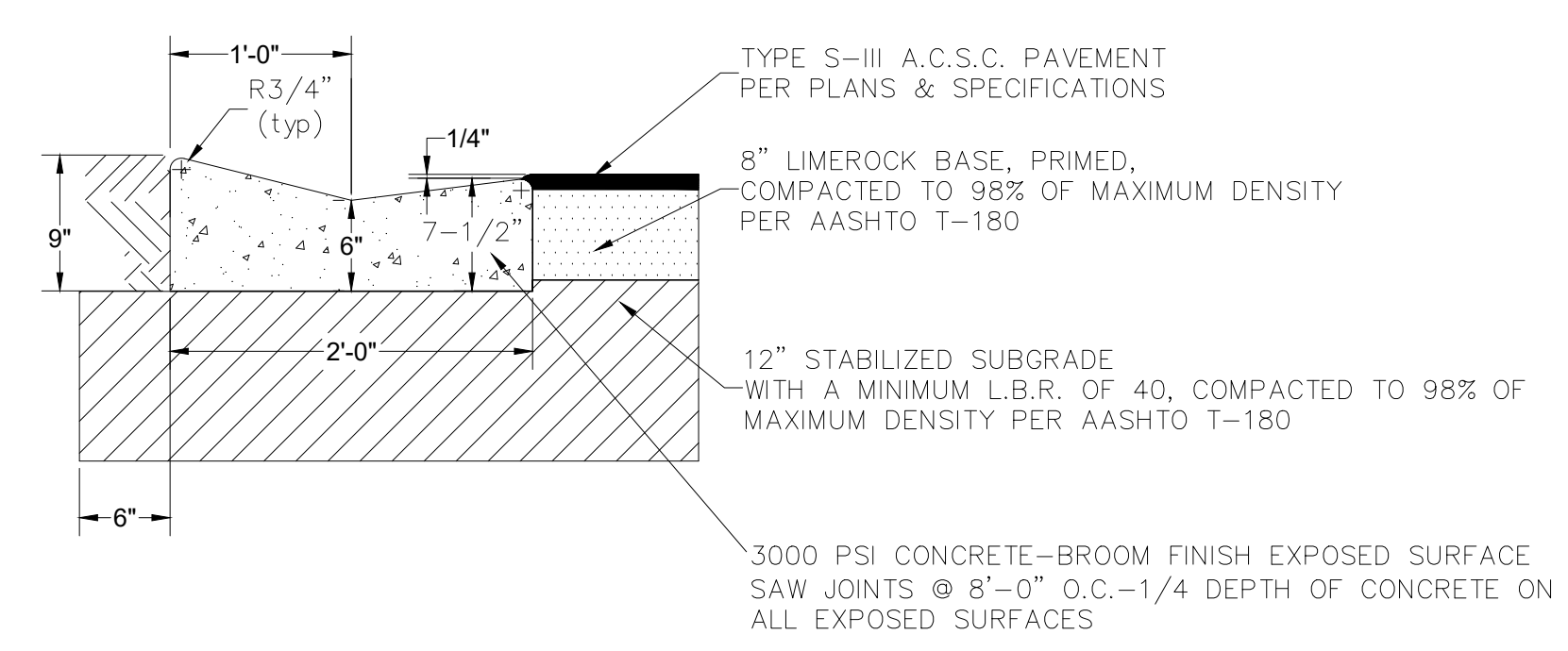


SIDEWALK DETAIL
NTS



- 1 1 1/2" TYPE SP-9.5 A.C.S.C. PAVEMENT, MEETING CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. THE WEARING SURFACE SHOULD BE COMPACTED TO A MINIMUM DENSITY OF 95 PERCENT OF THE LABORATORY DENSITY AS DETERMINED BY THE MARSHALL STABILITY TEST METHOD FOR THE APPROVED JOB MIX FORMULA.
- 2 8" LIMEROCK BASE COURSE. QUALITY OF LIMEROCK TO BE IN ACCORDANCE WITH CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND COMPACTED TO A MINIMUM DENSITY EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR (AASHTO T-180), PRIMED, COMPACTED TO 98% OF THE MAXIMUM DENSITY, PER AASHTO T-180
- 3 12" STABILIZED SUBGRADE WITH A MINIMUM FLORIDA BEARING VALUE (FBV) OF 50 PSI OR (LBR) OF 40 PERCENT. THE SUBBASE SHOULD BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T-180) FOR A DEPTH OF 1 FOOT BELOW PAVEMENT SUBGRADE

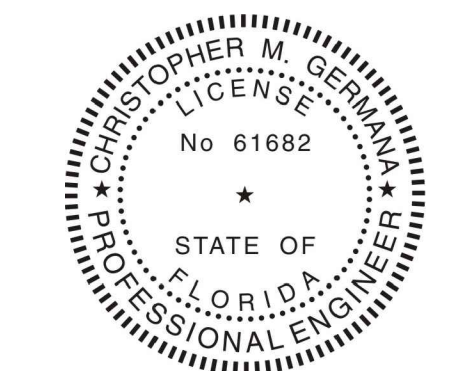
TYPICAL R/W SECTION
1" = 10'



MIAMI CURB
NTS

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by Christopher M
Germana
Date: 2021.12.02
14:21:41 -05'00'



CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
FIRM CERTIFICATE OF AUTHORIZATION # 29279

No.	REVISIONS	DATE
1.	REVISED PER CITY COMMENTS	10-18-2021
2.	REVISED PER CITY COMMENTS	11-22-2021

CONSTRUCTION
DETAILS

TALICHET PHASE 2
SUBDIVISION

PROJECT # GE0082021

HOWEY IN THE HILLS, FLORIDA

GERMANA ENGINEERING
AND ASSOCIATES, LLC
1120 WEST MINNEOLA AVENUE
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(352) 242-8329
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DATE: 08-25-2021

SHEET

C11

GENERAL WATER NOTES

1. WATER SYSTEM COMPONENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND CHAPTER 62-555 FLORIDA ADMINISTRATIVE CODE.
2. ALL PIPING SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.
3. WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, OR 18 FOR PIPE SIZES 4"-12". PIPES 14" OR LARGER SHALL BE AWWA C-900, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, FOR LAYING, SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S LATEST RECOMMENDATIONS.
4. DEPTH OF WATER LINES TO BE 36" MINIMUM COVER FROM FINISH GRADE.
5. WATER MAINS TO BE LOCATED FROM CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. ALL WATER MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON.
7. ALL CASINGS UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE BACK OF CURB.
8. DISINFECTING FOLLOWING THE PRESSURE TESTING, THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE NEW WATER DISTRIBUTION SYSTEM. DISINFECTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA STANDARD C651 "DISINFECTING WATER MAINS" AND ALL APPROPRIATE AGENCY APPROVAL.
9. ALL HYDROSTATIC TESTS SHALL BE IN ACCORDANCE WITH AWWA C600 FOR DUCTILE IRON PIPE AND C605M23 FOR PVC PIPE.
10. ALL WATER MAINS SHALL BE INSTALLED, PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA C600, 62-555.320(21)(B)1 AND 62-555.330, F.A.C. ALL INSTALLATION, TESTING AND FIELD PROCEDURES MUST BE PROVIDED AND MUST CONFORM TO THE APPLICABLE AWWA STANDARDS.
11. ALL PIPING MATERIALS AND SPECIFICATIONS COVERING PIPES, JOINTS AND PACKING MATERIALS, INTERNAL COATING AND LININGS, FITTINGS, SPECIALS AND APPURTENANCES SHALL ALL BE IN ACCORDANCE WITH THE CORRESPONDING AWWA STANDARDS AND BE CONFORMING TO NSF REQUIREMENTS. AS MAY BE APPLICABLE, WITH EXCEPTIONS ALLOWED ONLY IF DOCUMENTATION AND ASSURANCES ARE PROVIDED IN COMPLIANCE WITH PARAGRAPHS 62-555.320(3)(D), 62-555.320(3)(B), AND 62-555.320(21)(C), F.A.C. THE LEAD USE PROHIBITION IN RULE 62-555.322, F.A.C. SHALL ALSO APPLY. POLYETHYLENE TUBING SHALL BE PER AWWA C901. UNDERGROUND SERVICE LINES AND VALVES SHALL BE PER AWWA C800.

COLOR CODING

ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE. WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL, AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPES DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIKE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE. FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED (LINE UNDERGROUND PIPE.) [FAC 62-555.320(21)(B)3]

UNLESS DESCRIBED IN THE CITY CSM ELSEWHERE, ALL WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH CHAPTER 62-555.314, F.A.C., AND ANY UPDATES TO THE F.A.C., AND IN CONFORMANCE WITH ALL SEPARATION REQUIREMENTS AS FOUND THEREIN.

62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS.
FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

- (A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- (B) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
- (C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY, OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

GENERAL WATER NOTES

(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.005(2), F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS AND RECLAIMED WATER PIPELINES.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY, OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.

- (A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
- (B) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT IN THE ROUTING OF A WATER MAIN AND A STORM SEWER AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE), THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT (I.E., THE DEPARTMENT SHALL ALLOW CONSTRUCTION OF CONFLICT MANHOLES), BUT SUPPLIERS OF WATER OR PERSONS PROPOSING TO CONSTRUCT CONFLICT MANHOLES MUST FIRST OBTAIN A SPECIFIC PERMIT FROM THE DEPARTMENT AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS, AND DESIGN DATA ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:
 1. TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE.
 2. A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.
 3. ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS IN SUB-PARAGRAPHS A. THROUGH D. BELOW. - 381
 - A. EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTLING BETWEEN THE MAIN AND THE MANHOLE.
 - B. WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE).
 - C. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.
 - D. GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.

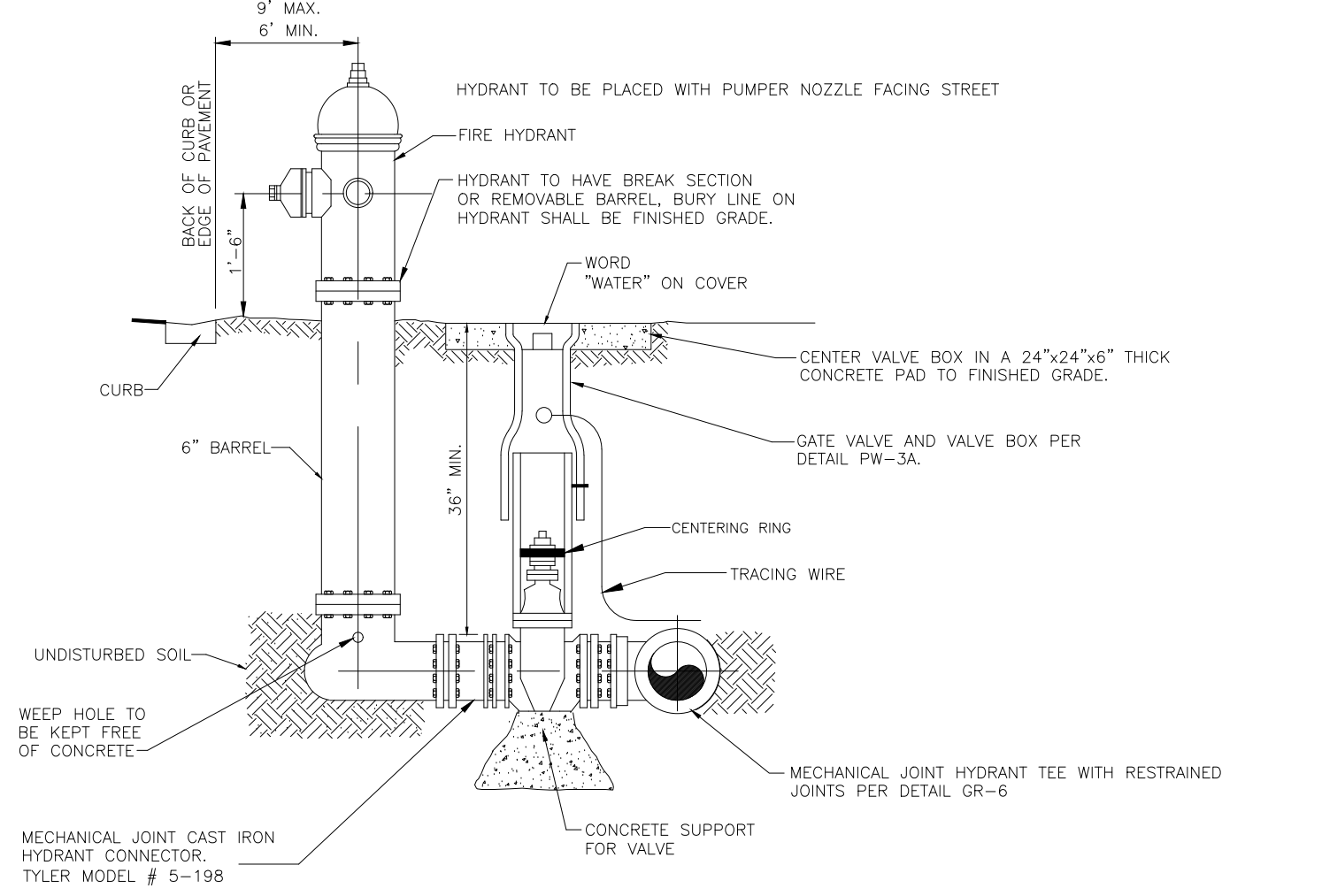
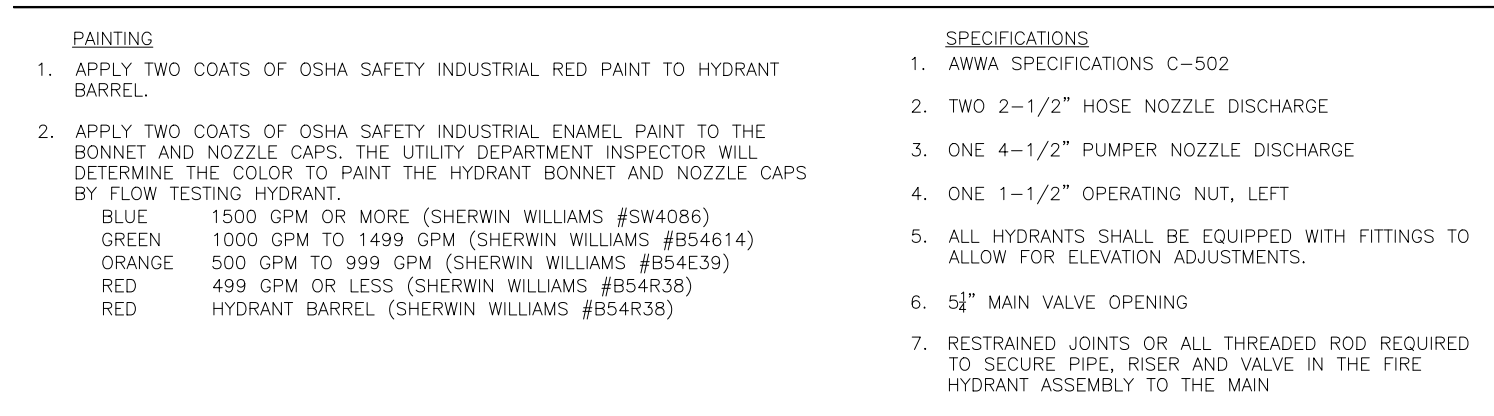
(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

- (A) NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY, OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.005(2), F.S., AND RULE 64E-6.002, F.A.C.

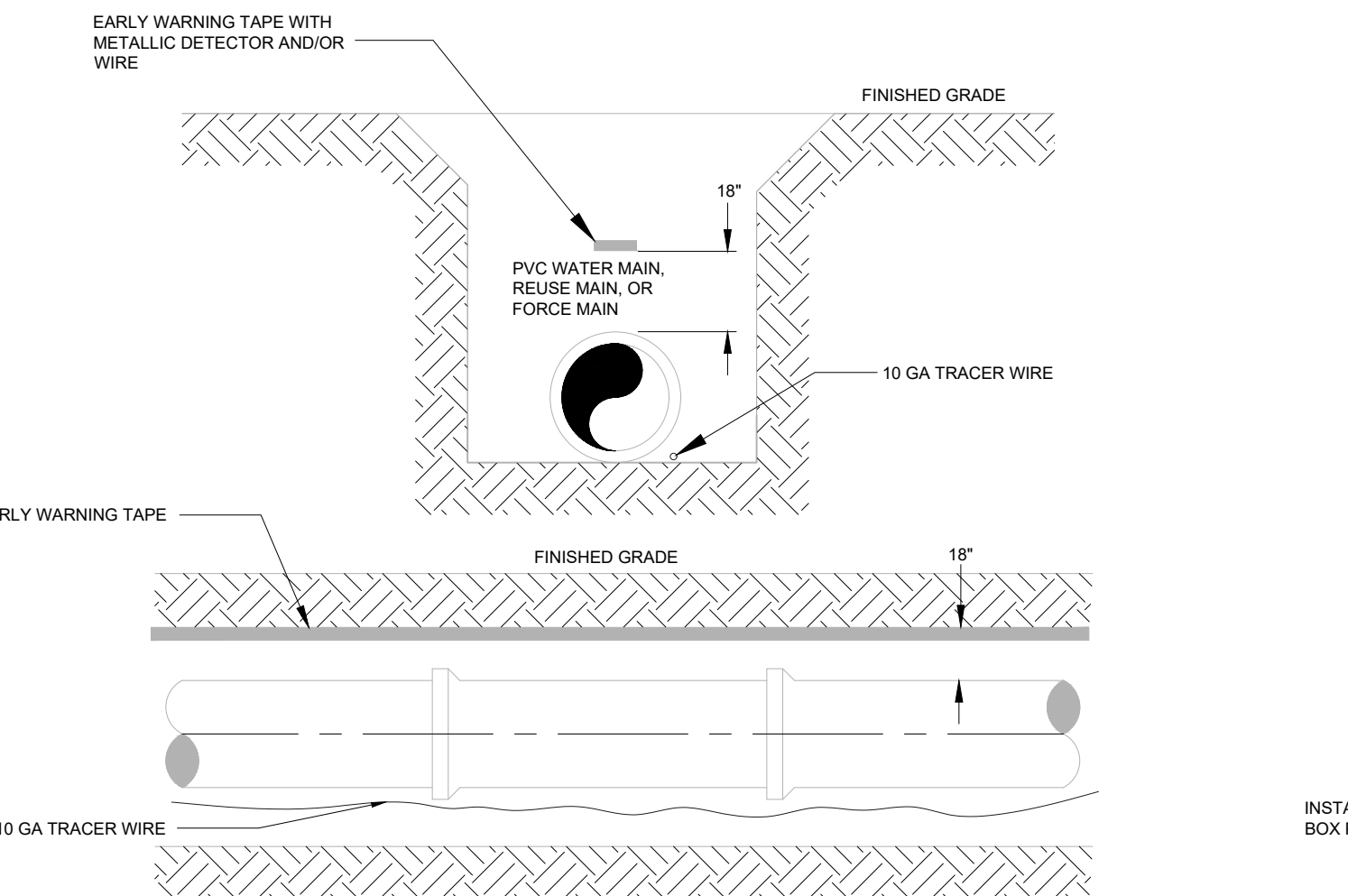
GENERAL WATER NOTES

(5) EXCEPTIONS, WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN SUBSECTION (1) OR (2) ABOVE, THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:

- (A) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE:
 1. USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY- OR VACUUM-TYPE PIPELINE;
 2. USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE;
 3. USE OF WATERTIGHT CASING PIPE OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE.
- (B) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE:
 1. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN; AND
 2. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

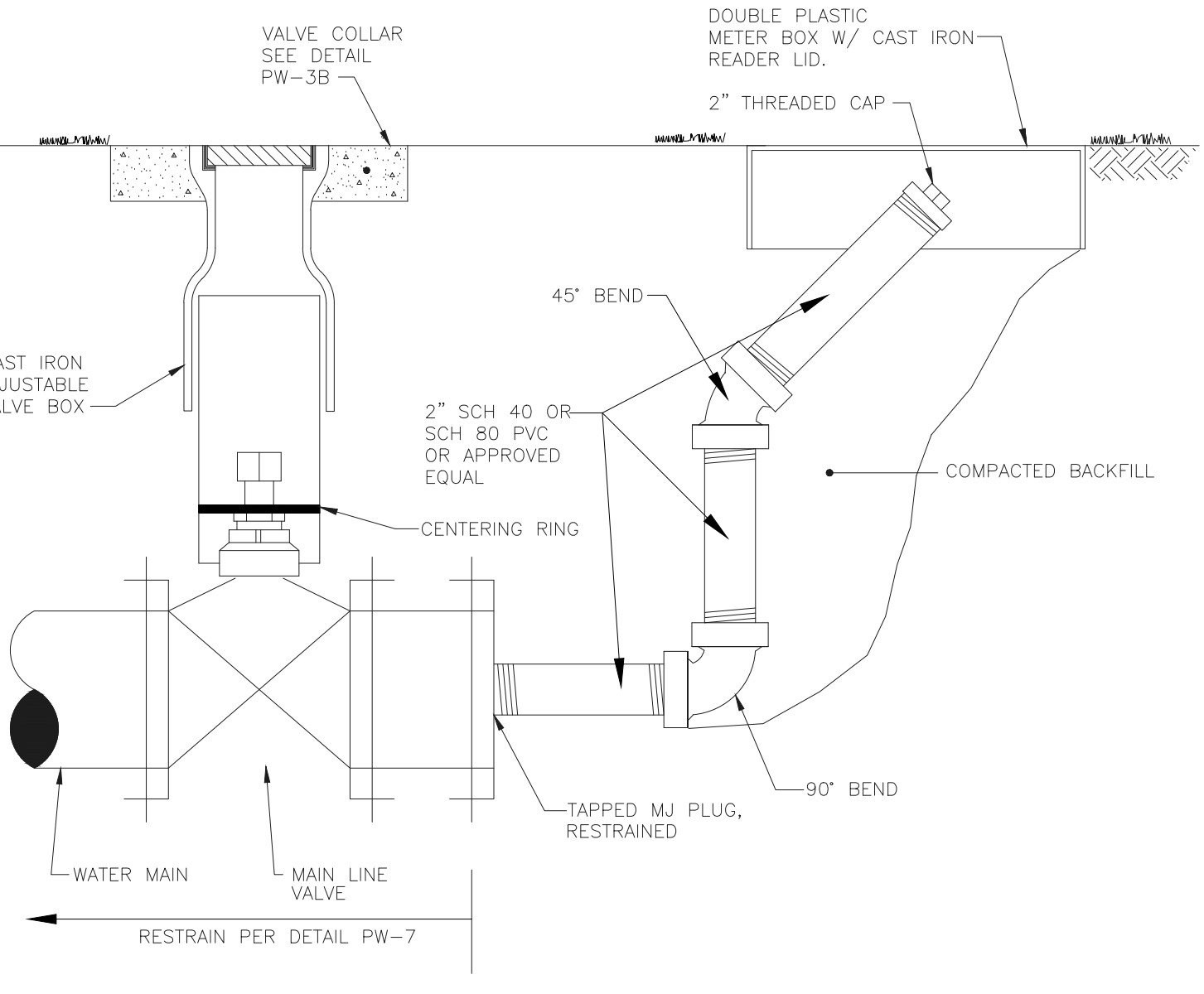


FIRE HYDRANT WITH VALVE
NOT TO SCALE
(STANDARD FIRE HYDRANT ASSEMBLY)

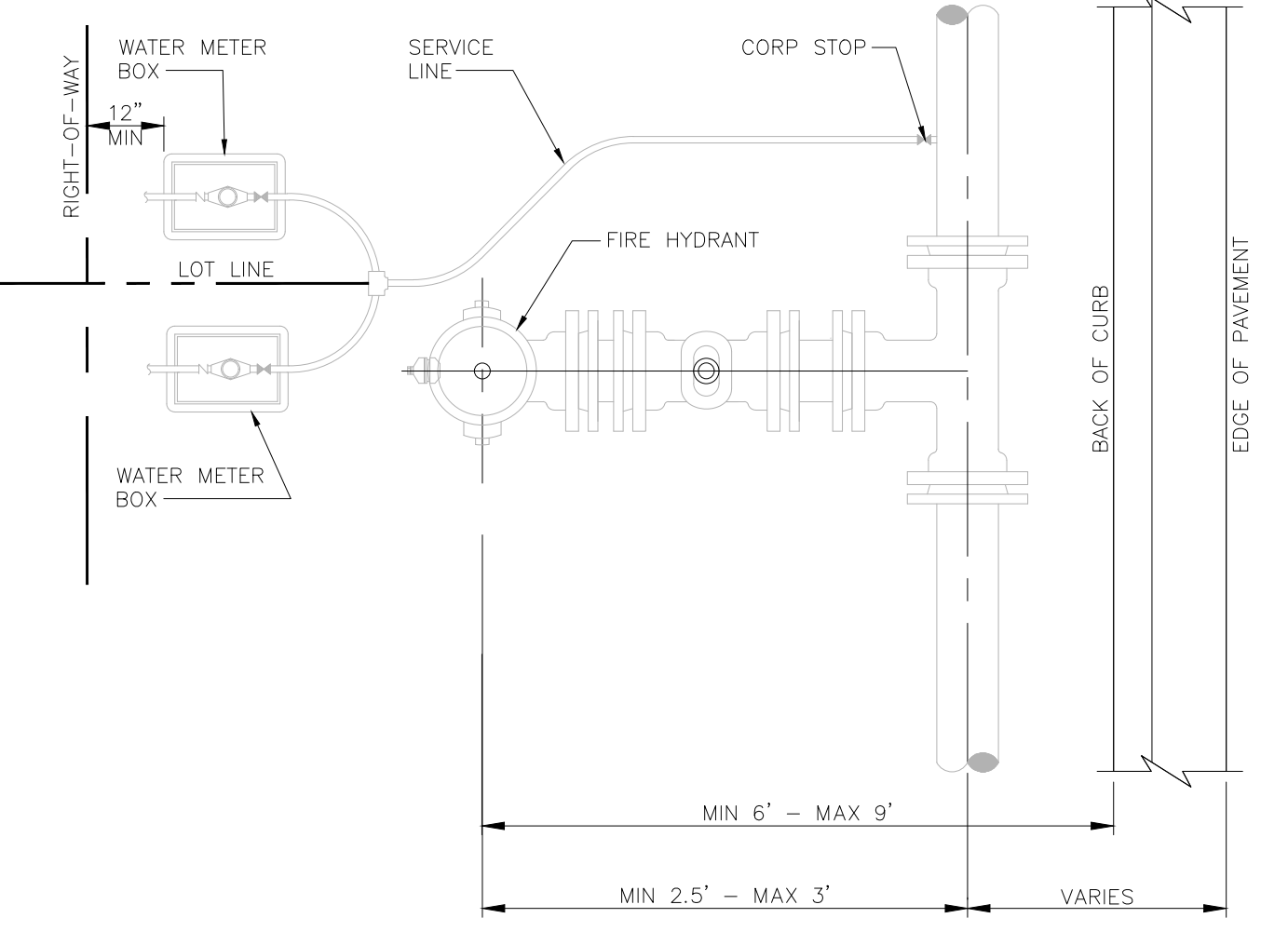


- NOTES:**
1. ALL MAINS INSTALLED BY OPEN CUT SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE AND WIRE INSTALLED CONTINUOUSLY ALONG THE ALIGNMENT. THE PROTECTION TAPE SHALL BE PER THE CITY'S APPROVED MANUFACTURER LIST. TAPE SHALL BE INSTALLED DURING BACKFILLING 18" ABOVE THE PIPE AND SHALL BE CONTINUOUSLY MARKED FOR THE TYPE OF PIPE (EXAMPLE: CAUTION, WATER MAIN BURIED BELOW). THE TAPE SHALL HAVE A METALLIC DETECTABLE STRIP INCLUDED AND COLOR CODED AS FOLLOWS:
BLUE - POTABLE WATER
GREEN - SANITARY FORCE MAIN, GRAVITY SEWER, LOW PRESSURE MAIN
PANTONE PURPLE - RECLAIMED WATER
RED - DEDICATED FIRE LINE
 2. ALL PVC MAINS SHALL BE A SOLID COLOR AS DESCRIBED ABOVE
ALL DUCTILE IRON MAINS SHALL BE WRAPPED WITH COLOR CODED BAGS
ALL POTABLE WATER PIPE SHALL BEAR THE NATIONAL SANITATION FOUNDATION (NSF) SEAL OF APPROVAL.

UTILITY PIPE LOCATION MATERIAL - TAPE
NOT TO SCALE

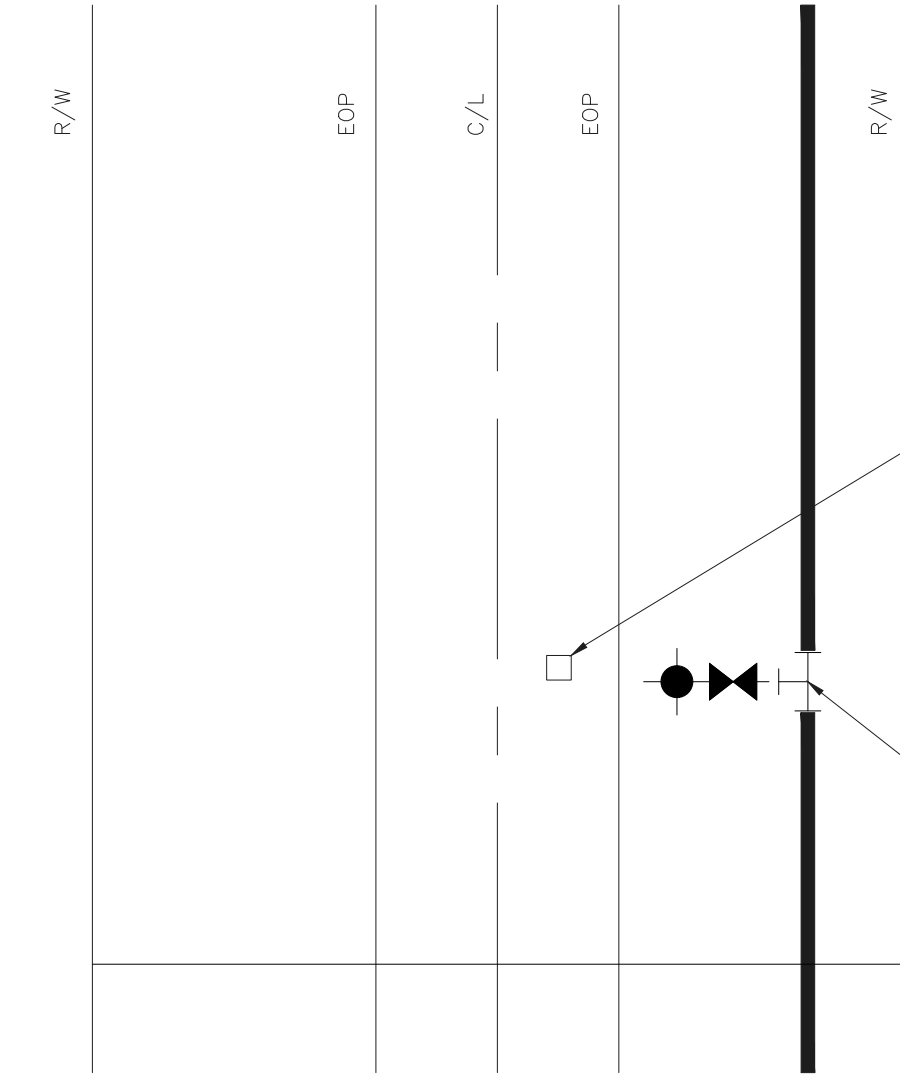


BLOWOFF VALVE
NOT TO SCALE

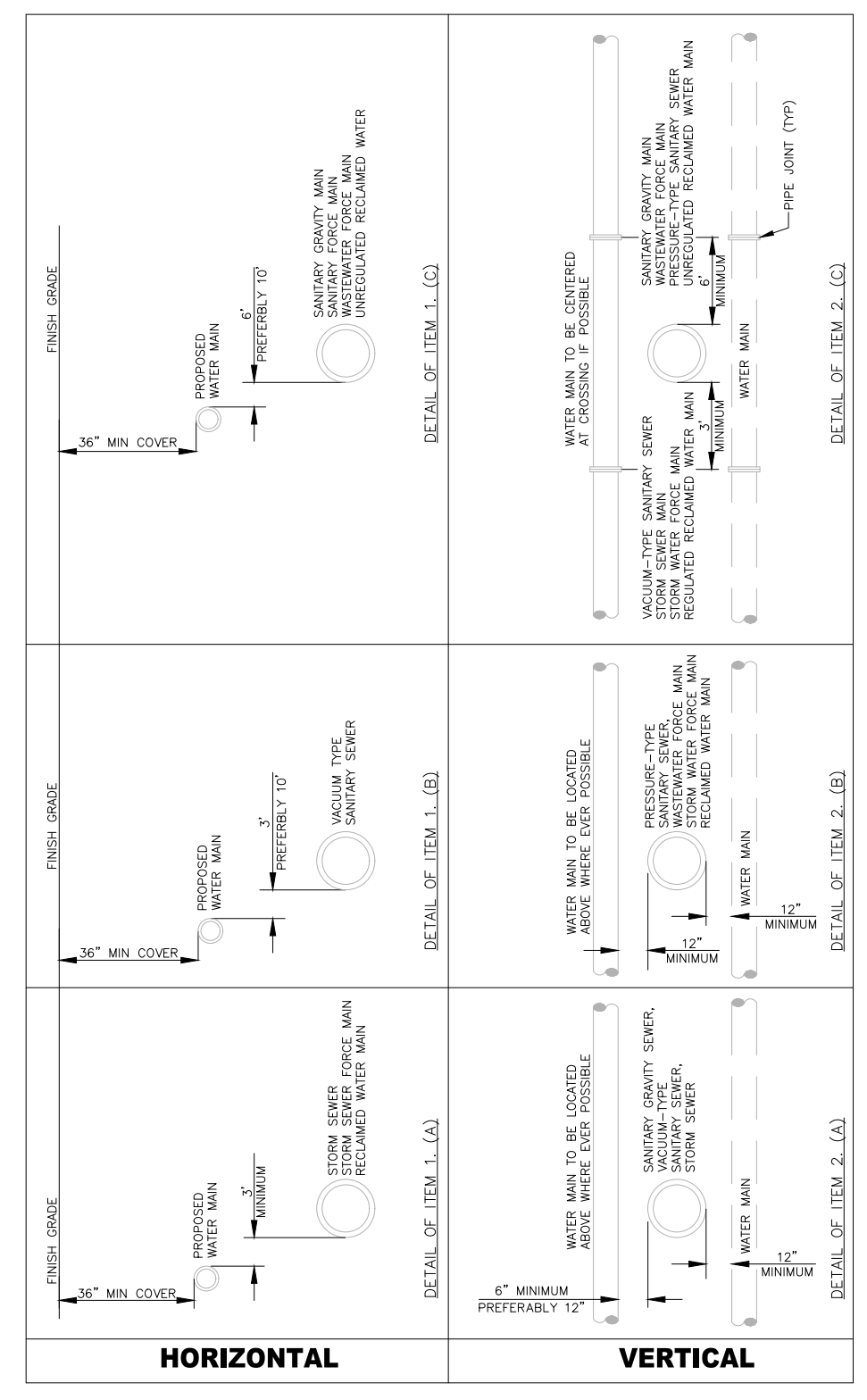


TYPICAL WATER SERVICE AND HYDRANT LOCATION
NOT TO SCALE

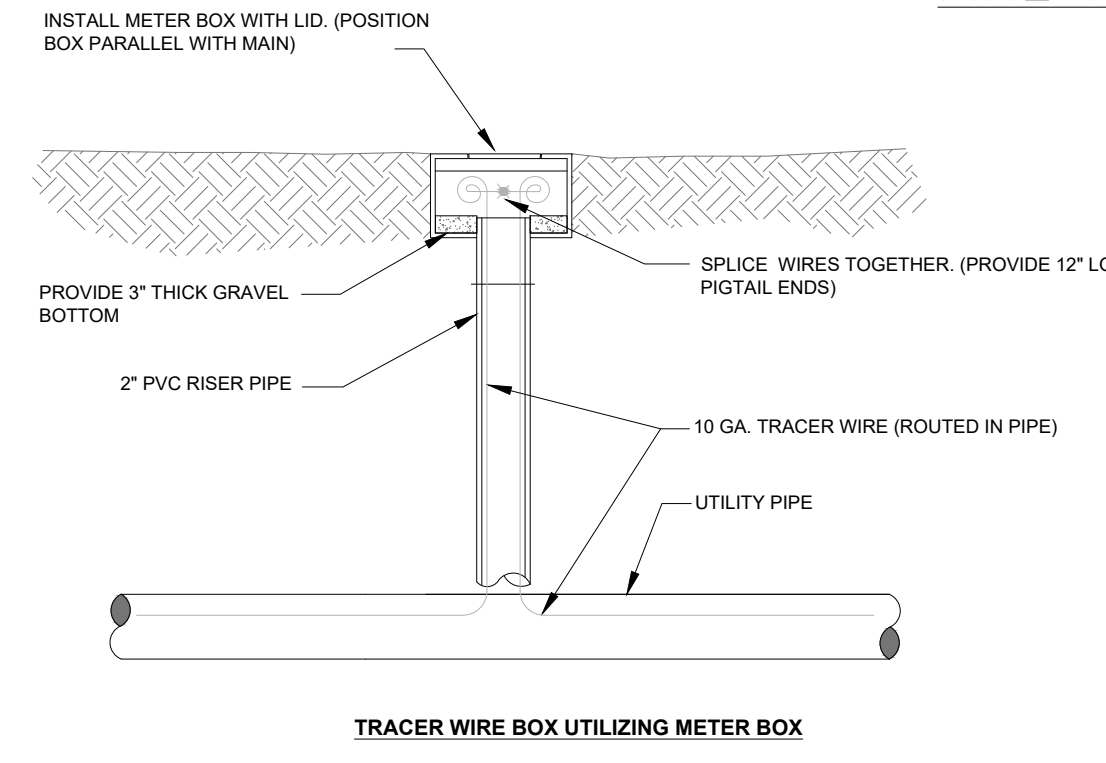
- NOTES:**
1. ALL METER BOXES TO BE LOCATED INSIDE ROAD R/W LINE
 2. DETAIL TO BE USED WHERE FIRE HYDRANTS AND WATER SERVICES ARE LOCATED ON PLANS AND CONFLICT APPEARS APPARENT.



FIRE HYDRANT REFLECTOR
NOT TO SCALE



UTILITY SEPARATION
NOT TO SCALE



- NOTES:**
1. TRACER WIRE STATION BOX TO BE INSTALLED WHERE THE WIRE CANNOT BE BROUGHT TO GRADE IN A VALVE BOX WITHIN THE MANDATORY 500 FOOT INTERVAL OR WHERE A SPLICE MUST BE MADE ON THE TRACER WIRING. NO UNDERGROUND SPLICES.
 2. BOXES SHALL NOT BE LOCATED IN ROADWAYS OR DRIVEWAYS.
 3. BOX AND LID PER DETAIL PW-19
 4. TRAFFIC RATED LID (STANDARD-NON BOLT DOWN)
 5. LID COLOR SHALL BE PRE-MANUFACTURED OR PAINTED TO MATCH SERVICE (BLUE= POTABLE WATER, GREEN=WASTEWATER, PANTONE PURPLE=RECLAIMED WATER)

TRACER WIRE BOX
NOT TO SCALE

DATE	
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POTABLE WATER CONSTRUCTION DETAILS	
TALICHET PHASE 2 SUBDIVISION	
PROJECT # GE0082021	
HOWEY IN THE HILLS, FLORIDA	
<p>GERMANA ENGINEERING AND ASSOCIATES, LLC 1120 WEST MINNEOLA AVENUE CLERMONT, FL 34711 WWW.GERMANAENGINEERING.COM CERTIFICATE OF AUTHORIZATION NUMBER 29279 COPYRIGHT © 2020</p>	
SCALE: NTS	
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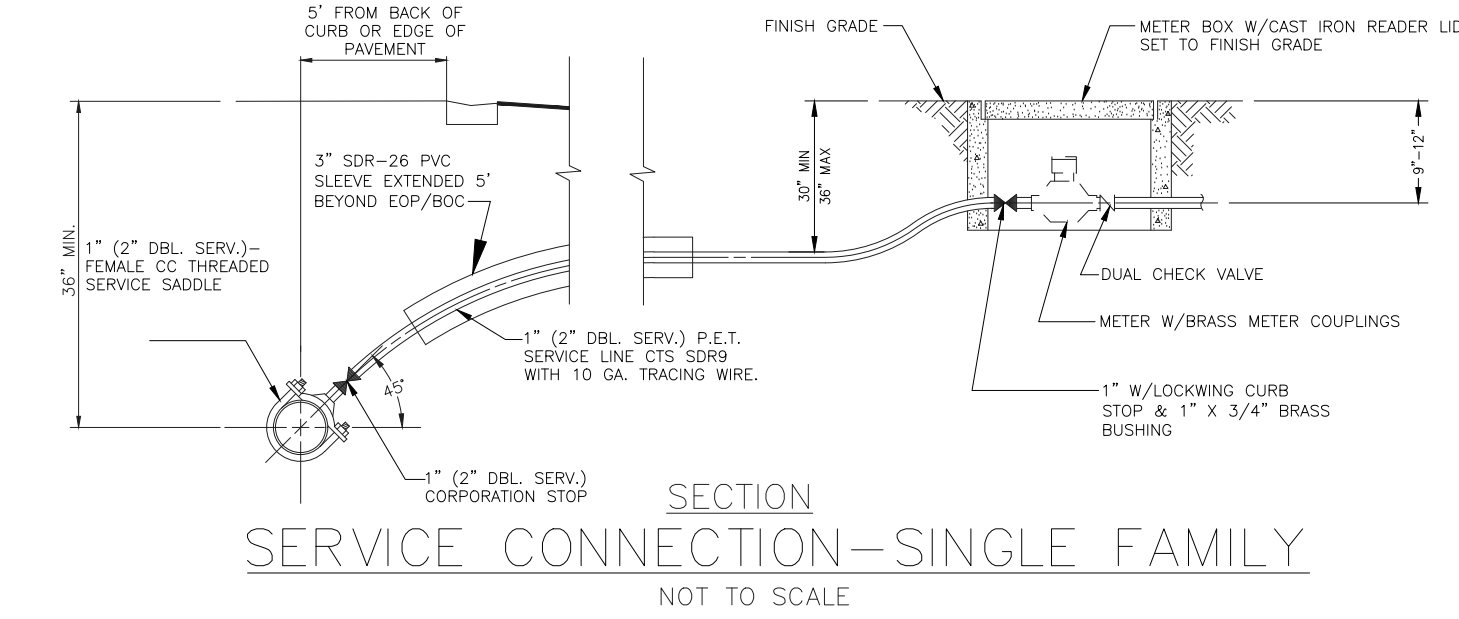
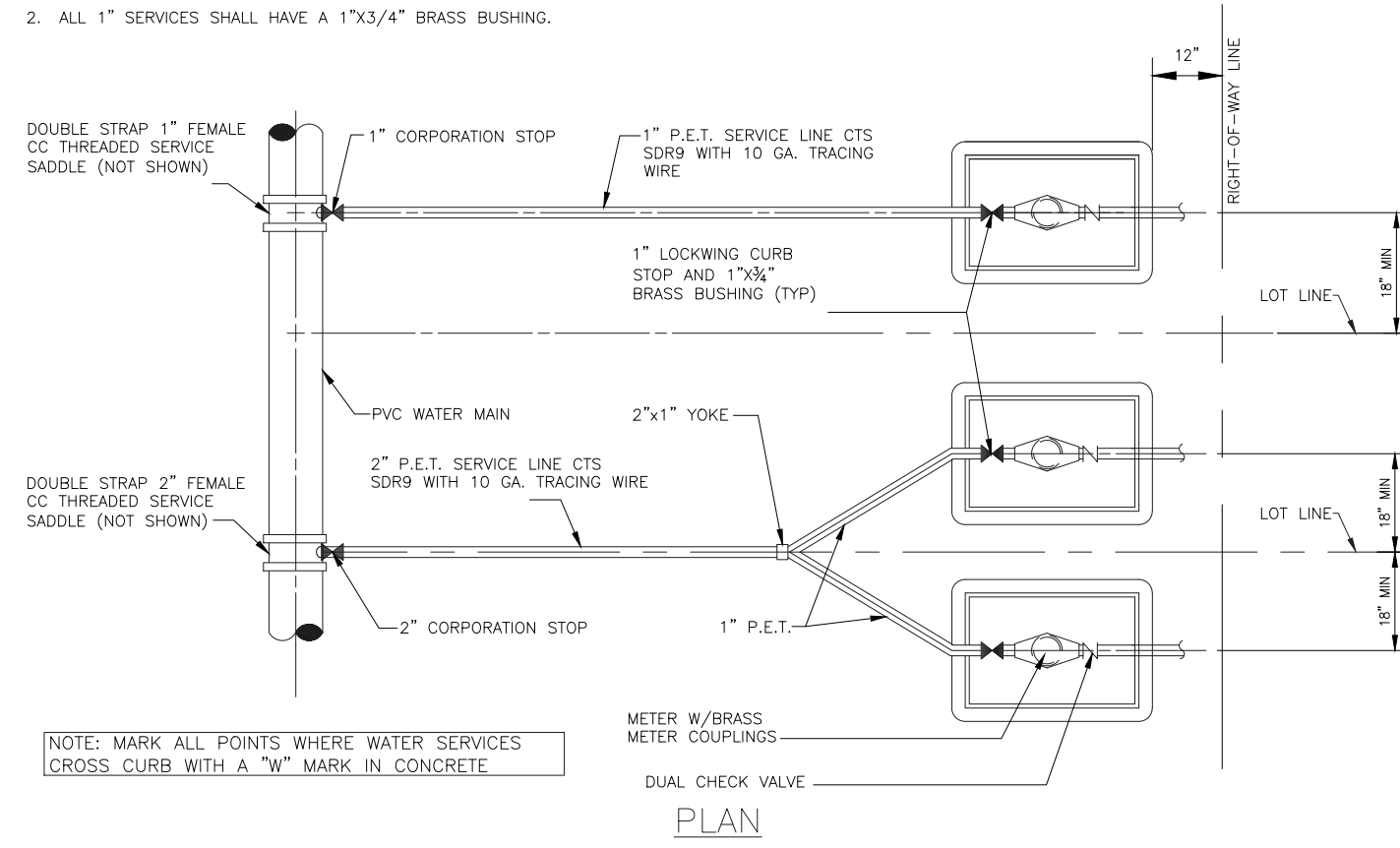
Digitally signed by Christopher M Germana
Date: 2021.12.02 14:22:18 -05'00'



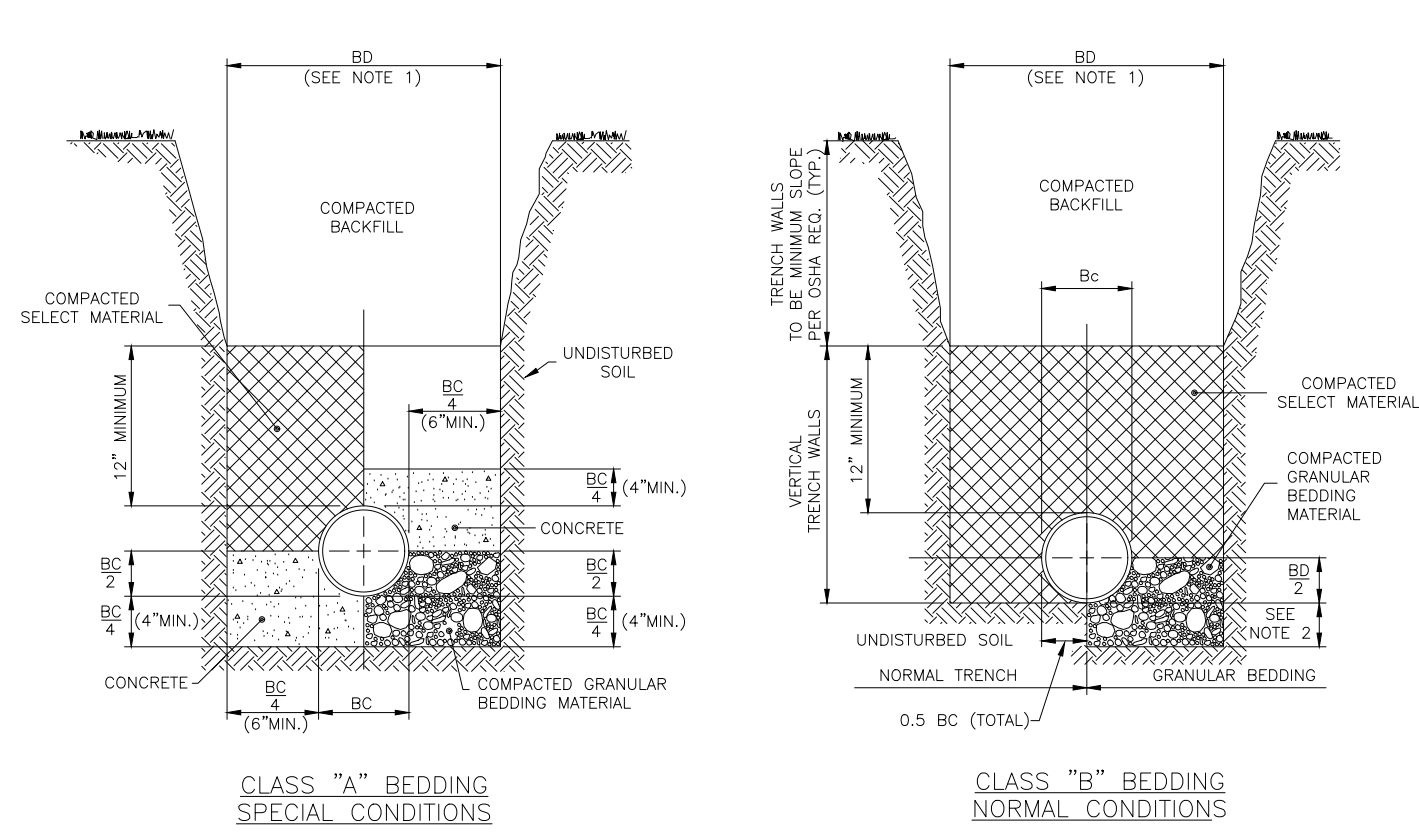
This item has been digitally signed and sealed by Christopher M. Germana. If you are the recipient of the seal and intend to use the signature must be verified on any electronic copies.

CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
FIRM CERTIFICATE OF AUTHORIZATION # 29279

- NOTES:
1. ALL METER BOXES SHALL BE STANDARD PLASTIC RECTANGLE WITH A 1 1/4" PRE-DRILLED HOLE FOR THE TONGUE OR RF METER PAD. (CONTACT CITY FOR DETAILS).
 2. ALL 1" SERVICES SHALL HAVE A 1"x3/4" BRASS BUSHING.



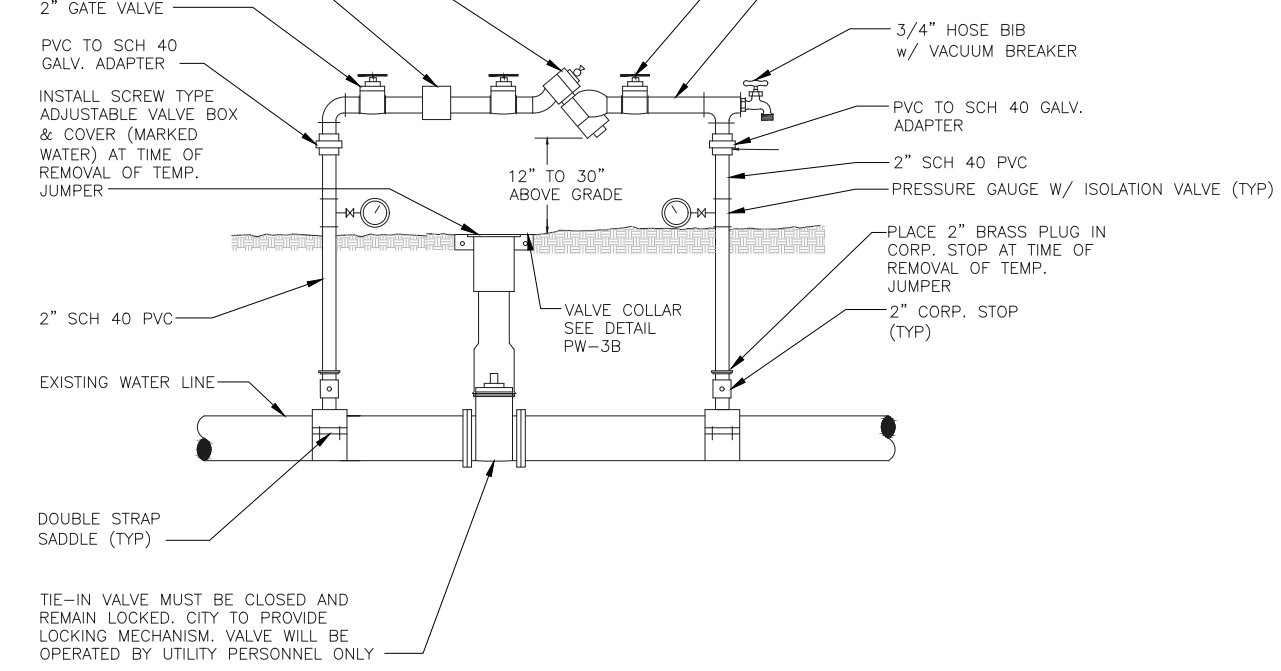
SERVICE CONNECTION - SINGLE FAMILY
NOT TO SCALE



TRENCHING AND BEDDING
NOT TO SCALE

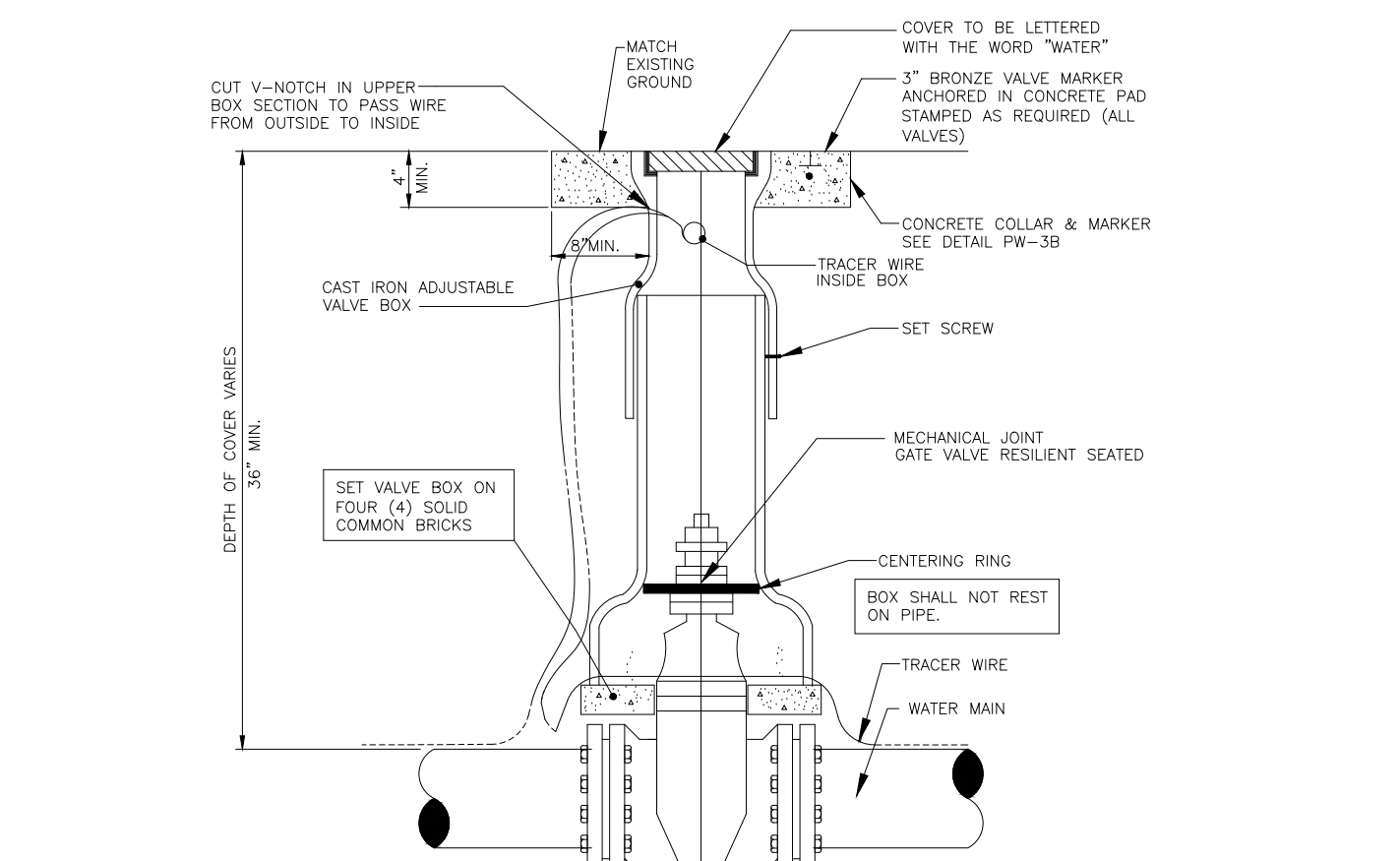
- NOTES: FOR BEDDING AND TRENCHING
1. DIMENSION BC = PIPE O.D.
DIMENSION BD = TRENCH WIDTH AT TOP OF PIPE
MAXIMUM BD = BC + 20"
MINIMUM BD = MAXIMUM DIMENSION OF BELL + 8" (UNSHEETED TRENCH)
DEPTH FOR REMOVAL FOR UNSUITABLE MATERIAL SHALL BE AS REQUIRED TO REACH SUITABLE FOUNDATION FOR ROCK OR OTHER NON-CUSHIONING MATERIAL. DEPTH SHALL BE 6" BELOW BOTTOM OF UTILITY.
 2. ALL BACKFILL AND SELECT MATERIAL UNDER ALL ROADWAYS, DRIVES (INCLUDING DIRT DRIVES), AND PARKING AREAS SHALL BE COMPACTED TO 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM T-180). BACKFILL AND SELECT MATERIAL UNDER ALL OTHER AREAS SHALL BE COMPACTED AS FOLLOWS: FROM BOTTOM OF TRENCH TO 12" ABOVE TOP OF PIPE = 98% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM T-180); FROM 12" ABOVE TOP OF PIPE TO TOP OF BACKFILL = 90% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM T-180).

- TEMPORARY JUMPER CONNECTION NOTES
1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.
 2. THE DETAILS TO BE USED FOR FILLING ANY WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR PULLING BACTERIOLOGICAL SAMPLE FROM ANY SIZE WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED. ADEQUATE RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, LATEST EDITION. THIS TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SHABLING PER SECTION II OF AWWA C651, LATEST EDITION.
 3. FLUSHING OF 10" DIAMETER AND LARGE WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE, IN THE PRESENCE OF THE UTILITY DIRECTOR OR HIS DESIGNEE. THE UTILITY DEPARTMENT WILL NOTIFY IN WRITING 48 HOURS PRIOR TO THE FLUSHING OF SAID MAINS.

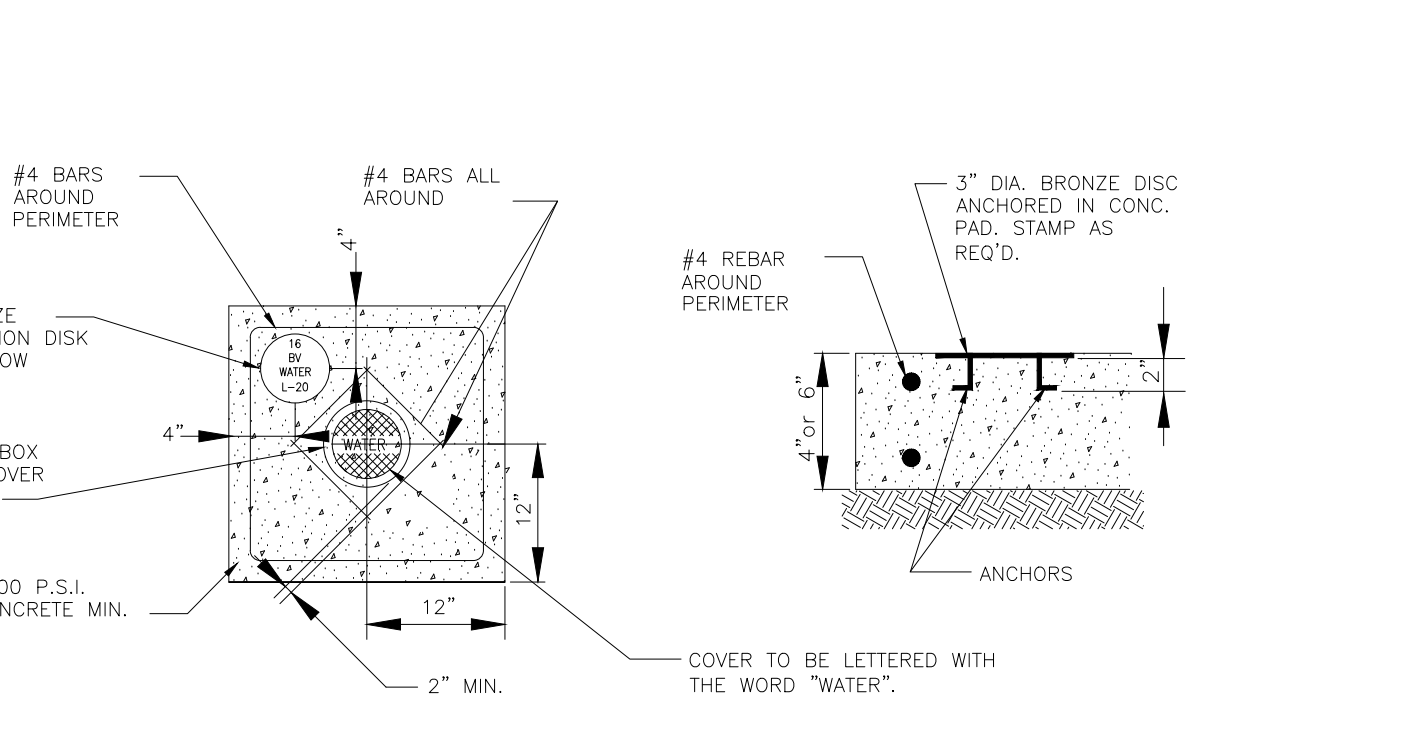


TEMPORARY JUMPER CONNECTION
NOT TO SCALE

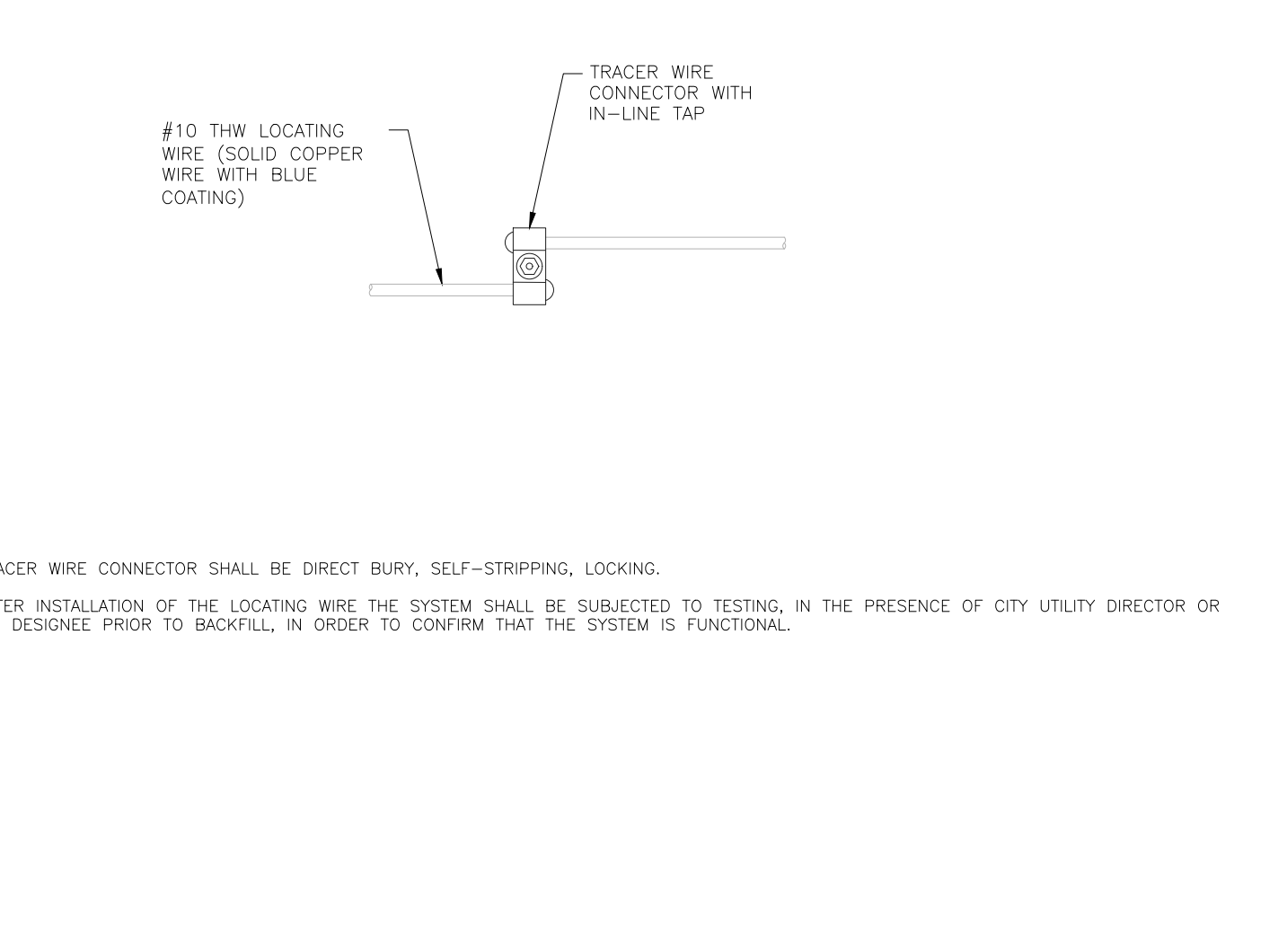
- THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
- A. THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO THE TIE-IN VALVES WHICH ARE NOT WATER TIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.
 - B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.
 - FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
 - ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE.
 - PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT, THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 psi.
 - TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 psi.
 - C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL FLUSHING BEGINS.
 - D. THE TIE-IN VALVE SHALL BE OPENED ONLY A FEW TURNS FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE CITY AND OBSERVED BY THE ENGINEER.
 - E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSED POSITION BY THE CITY.
4. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE RPZ BACKFLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A QUALIFIED BACKFLOW PREVENTION TECHNICIAN.
 5. EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8" IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSED POSITION BY THE CITY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER PERTINENT AGENCIES.
 6. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS.
 7. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE FITTINGS, VALVE, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



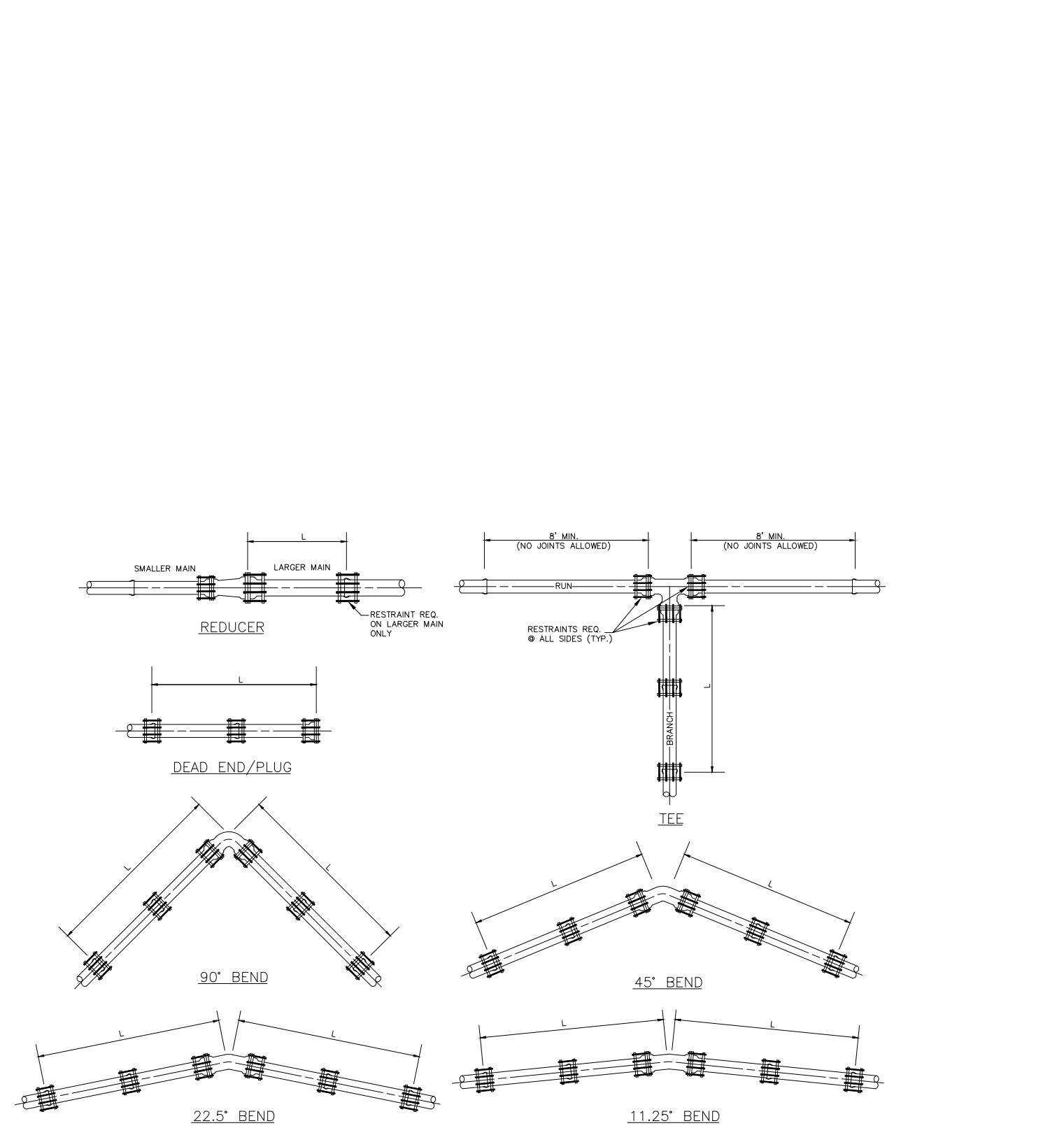
GATE VALVE AND BOX
NOT TO SCALE



BRONZE IDENTIFICATION DISC DETAIL
VALVE COLLAR
NOT TO SCALE



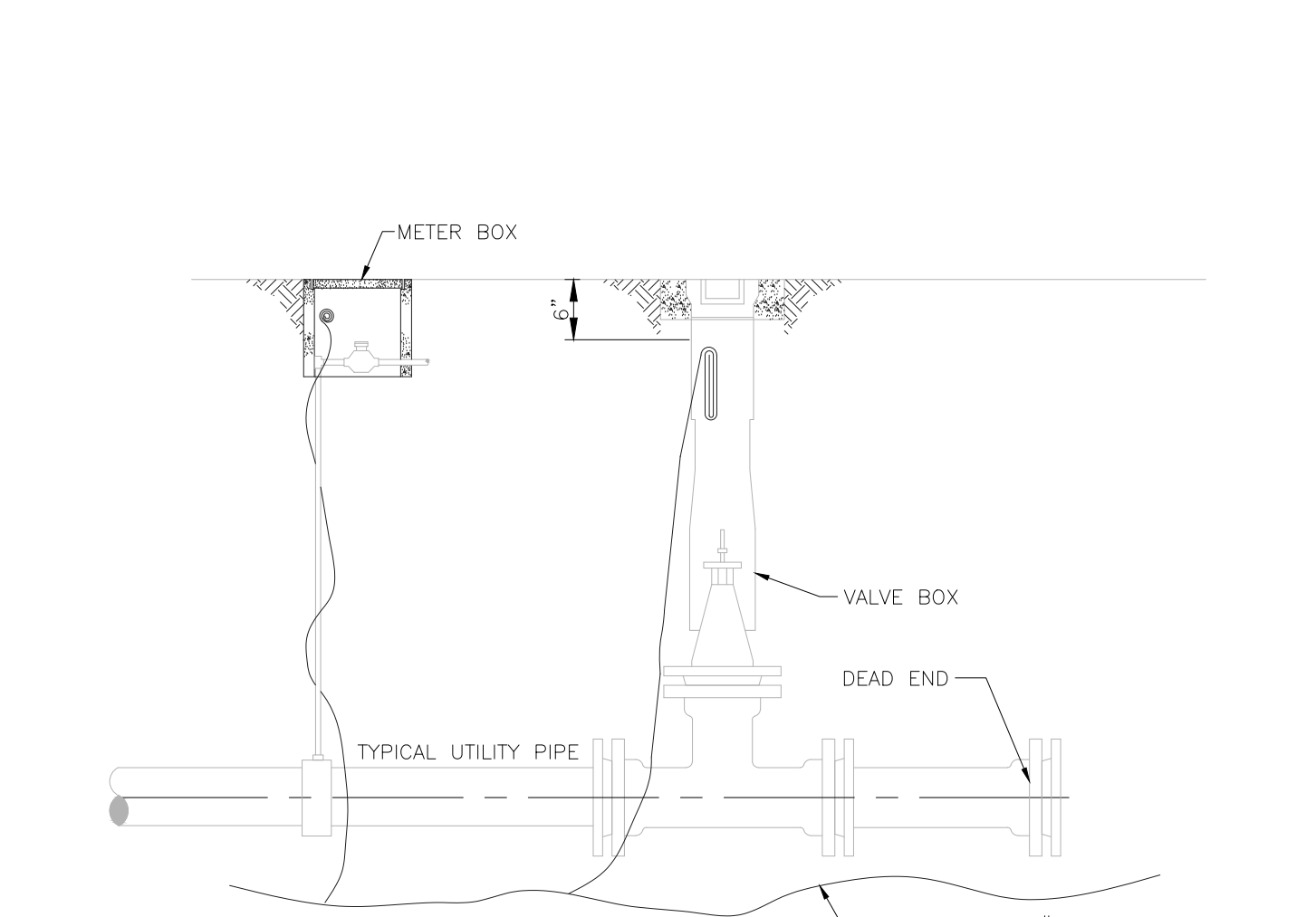
LOCATING WIRE SPLICING
NOT TO SCALE



UTILITY PIPE LOCATION MATERIAL - WIRE
NOT TO SCALE

PIPE SIZE (DIAMETER)	45° BEND		90° BEND		11.25° BEND		22.5° BEND		REDUCER						
	PKG. B1	PKG. B2	PKG. B1	PKG. B2	PKG. B1	PKG. B2	PKG. B1	PKG. B2	PKG. B1	PKG. B2					
4"	20'	16'	8'	7'	4'	3'	2'	2'	15'	10'	45'	29'	6'x4"	33'	21'
6"	28'	22'	12'	9'	6'	4'	3'	2'	33'	21'	65'	40'	8'x6"	34'	22'
8"	36'	28'	15'	12'	7'	6'	4'	3'	52'	33'	82'	52'	10'x8"	33'	21'
10"	43'	34'	18'	14'	9'	7'	4'	3'	68'	43'	98'	63'	12'x10"	34'	22'
12"	50'	40'	21'	17'	10'	8'	5'	4'	84'	54'	116'	74'	16'x12"	63'	40'
16"	65'	51'	28'	21'	13'	10'	6'	5'	116'	74'	148'	94'	18'x16"	33'	21'
18"	76'	56'	29'	23'	14'	11'	7'	6'	131'	83'	163'	103'	20'x18"	33'	21'
20"	75'	61'	31'	25'	15'	12'	7'	6'	145'	92'	178'	113'	20'x20"	62'	39'
24"	86'	70'	36'	29'	17'	14'	9'	7'	173'	110'	207'	132'			

THRUST RESTRAINT
NOT TO SCALE



- ALL PIPE INSTALLED VIA OPEN CUT SHALL BE INSTALLED WITH #10 THW SOLID COPPER COATED TRACING WIRE. ALL PIPE INSTALLED VIA HDD SHALL BE INSTALLED WITH TWO #10 COPPER CLAD STEEL WIRES.
- THE TRACING WIRE MUST BE INSTALLED DIRECTLY BELOW THE PIPE AND BROUGHT TO THE SURFACE AT 500' MINIMUM INTERVALS. WIRE SHALL EXTEND A MINIMUM OF 12" ABOVE GRADE AT EACH INTERVAL AND BE COILED AND PLACED IN A VALVE BOX, METER BOX, MANHOLE, CLEANOUT, LOCATE WIRE BOX, OR OTHER APPLICABLE STRUCTURE.
- COLOR CODING:
- POTABLE WATER SYSTEM: BLUE
REUSE WATER SYSTEM: PANTONE PURPLE
SANITARY SEWER, FORCE MAINS AND LOW PRESSURE SEWER SYSTEMS: GREEN
1. FOR LOW PRESSURE SEWER, POTABLE WATER AND REUSE WATER SYSTEMS: WIRE SHALL BE INSTALLED BELOW ALL MAINS AND SERVICE LINES AND ATTACHED TO VALVES, HYDRANTS AND FITTINGS. WIRE INSTALLED WITH SERVICE LINES SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE CURB STOP.
 2. FIRE SPRINKLER LINES: WIRE SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE RISER CONNECTION.
 3. SANITARY SEWER FORCE MAINS: WIRE SHALL BE INSTALLED BELOW THE FORCE MAIN AND ATTACHED TO ALL VALVES AND FITTINGS AND BROUGHT TO THE SURFACE AND PLACED IN A METAL, TOWN OF HOWEY IN THE HILLS APPROVED, VALVE BOX.
 4. DEAD END MAINS: WIRE SHALL BE PLACED IN A PROPERLY IDENTIFIED METAL VALVE BOX AT THE END OF THE RUN.
 5. WIRE SHALL NOT BE FASTENED OR COILED TO VALVE OPERATING NUT.
 6. UTILITY TRACING WIRE SHALL BE IN ACCORDANCE WITH CITY CSM AND PER CITY'S APPROVED MANUFACTURER LIST.

UTILITY PIPE LOCATION MATERIAL - WIRE
NOT TO SCALE

POTABLE WATER CONSTRUCTION DETAILS

TALICHET PHASE 2 SUBDIVISION

PROJECT # GE0082021

HOWEY IN THE HILLS, FLORIDA

GERMANA ENGINEERING AND ASSOCIATES, LLC
1120 WEST MINNEOLA AVENUE
CLERMONT, FL 34711
WWW.GERMANA.COM
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SHEET C13

CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61882
FIRM CERTIFICATE OF AUTHORIZATION # 29271

DATE	
REVISIONS	
No.	

RECLAIMED/SEWER CONSTRUCTION DETAILS

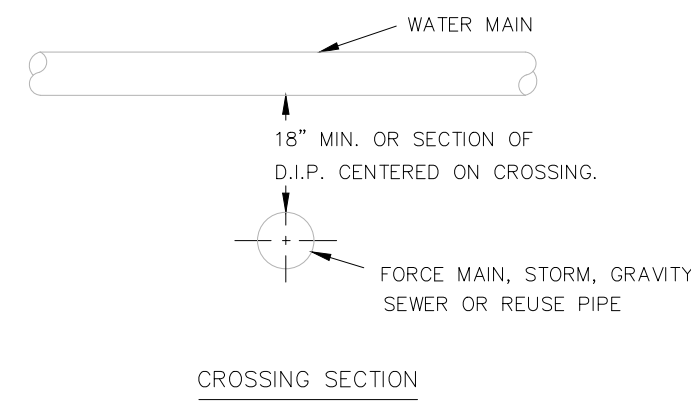
TALICHET PHASE 2 SUBDIVISION

PROJECT # GE0082021

HOWEY IN THE HILLS, FLORIDA

GERMANA ENGINEERING AND ASSOCIATES, LLC
 1120 WEST MINNEOLA AVENUE
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 (352) 242-9329
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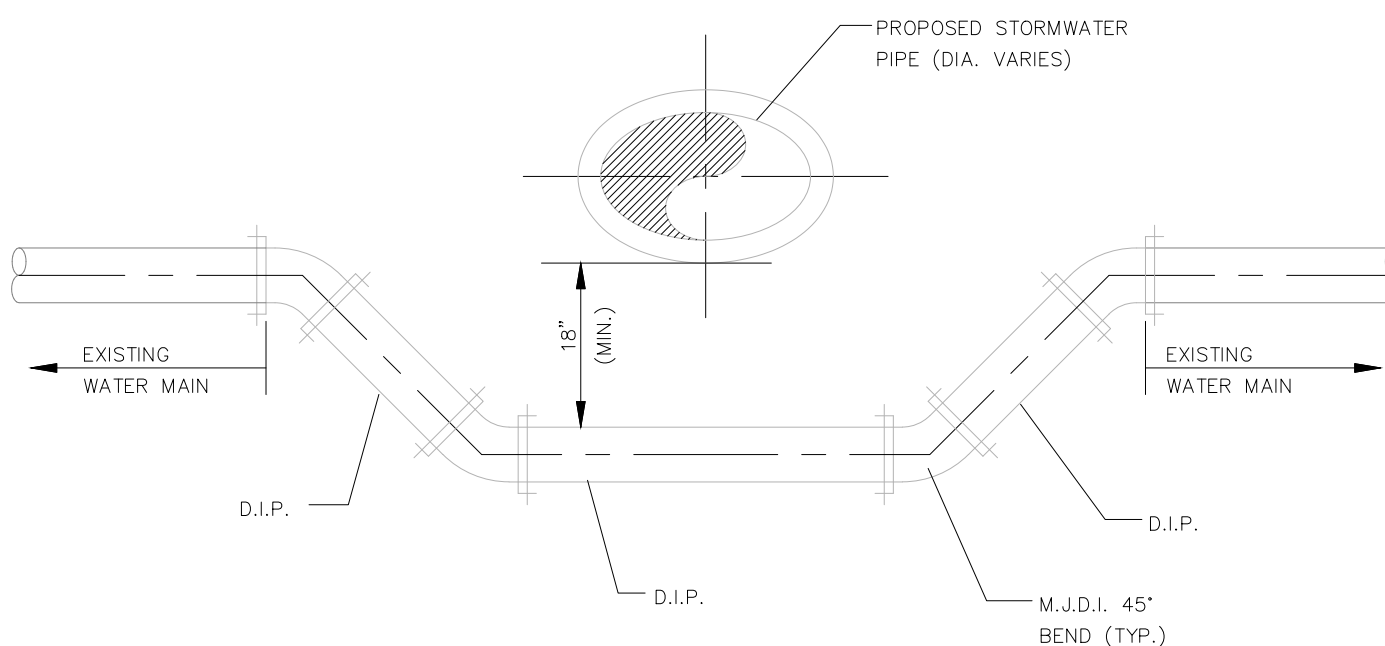
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- NOTES:**
- IF WATER MAIN IS LESS THAN 18" ABOVE SANITARY OR STORM SEWER, RECLAIMED WATER MAIN OR WASTEWATER FORCEMAIN PIPING AT A CROSSING, THEN CENTER ONE FULL LENGTH JOINT OF D.I.P. ON CROSSING POINT.
 - ALL PIPING CLEARANCES SHALL BE IN ACCORDANCE WITH CHAPTER 62-555.314, F.A.C.
 - DO NOT ENCASE PIPING IN CONCRETE UNLESS SPECIFICALLY AUTHORIZED.
 - ALL PIPING SHALL CLEAR OTHER CONSTRUCTION BY 6" MINIMUM.

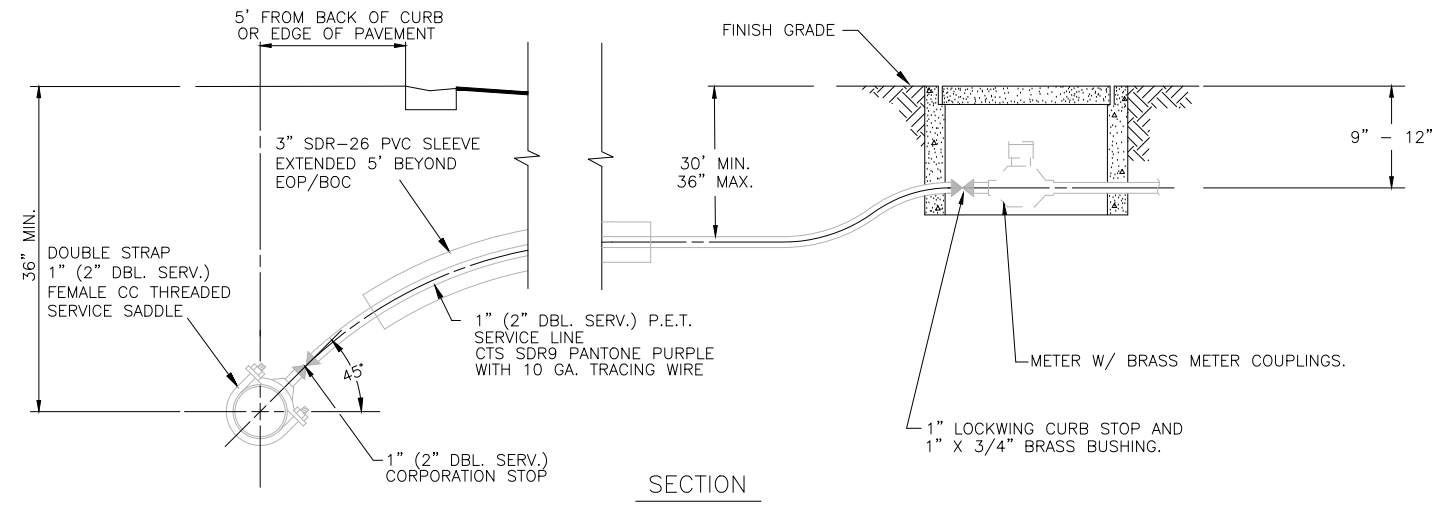
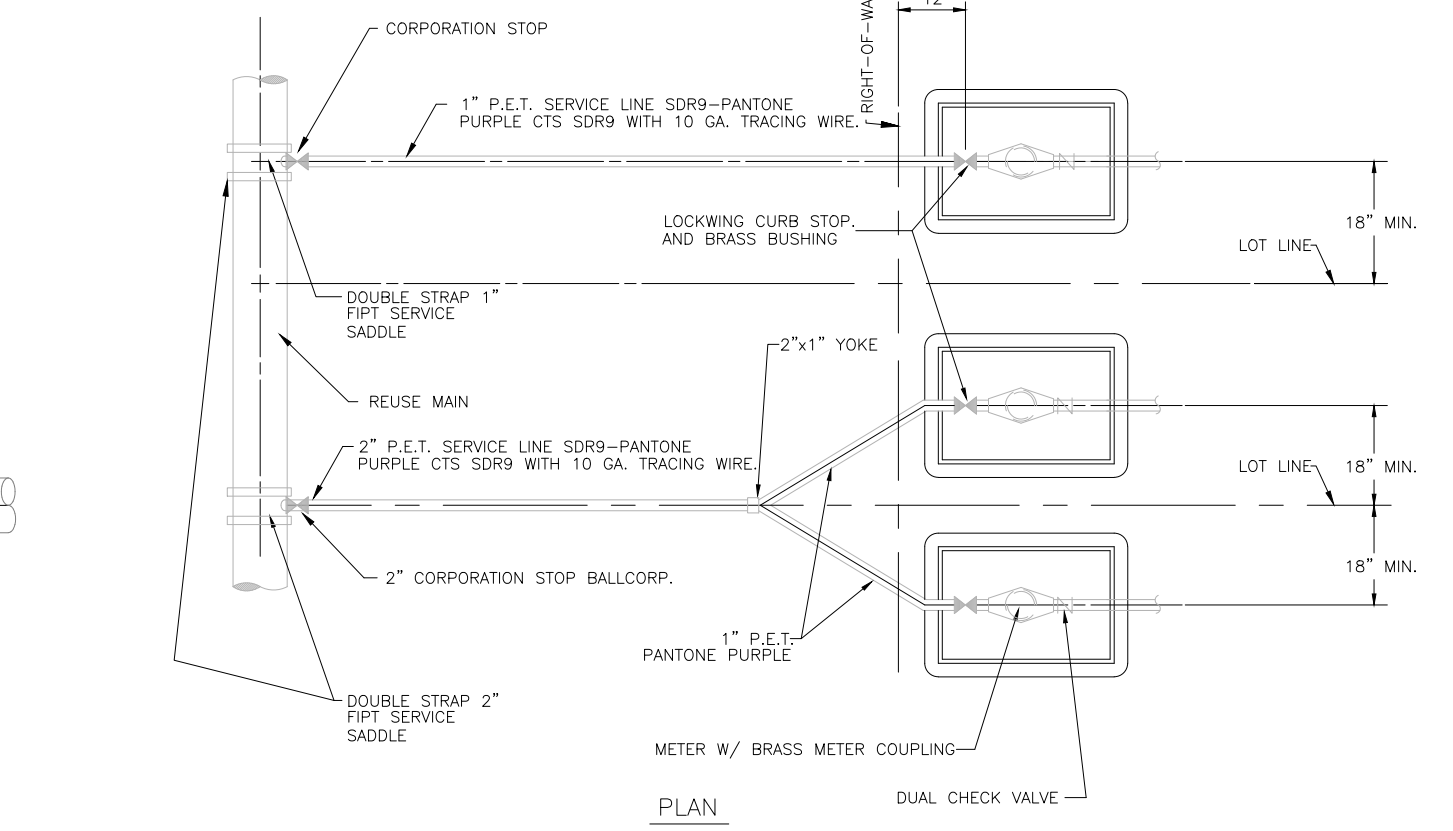
- ALL RECLAIMED WATER PIPING TO BE OWNED AND MAINTAINED BY THE TOWN OF HOWEY IN THE HILLS AND SHALL BE A SOLID PANTONE PURPLE COLOR.
- RECLAIMED WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12", PIPES 14" & LARGER SHALL BE AWWA C-905, DR 25. PRESSURE CLASS 350 DIP IS AN ACCEPTABLE ALTERNATE. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION FOR LAYING SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS LATEST RECOMMENDATIONS.
- DEPTH OF RECLAIMED WATER LINES TO BE 36" MIN. BELOW FINISHED GRADE.
- RECLAIMED WATER MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- ALL PIPING CLEARANCES SHALL BE IN ACCORDANCE WITH CHAPTER 62-555.314, F.A.C.
- ALL RECLAIMED WATER MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON PIPE AND SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB, EXCEPT DIRECTIONAL BORES, WHICH SHALL BE SDR-11 HDPE.
- ALL IRRIGATION SLEEVING UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB.
- ALL OTHER REQUIREMENTS OF THE CITY WATER SYSTEM SHALL APPLY TO THE RECLAIMED WATER SYSTEM.
- PROPER SIGNAGE FOR PUBLIC ACCESS IRRIGATION AREAS TO BE SUPPLIED BY THE DEVELOPER / CONTRACTOR, IN ACCORDANCE WITH CHAPTER 62-610.18, F.A.C.

PIPING CLEARANCES
NOT TO SCALE

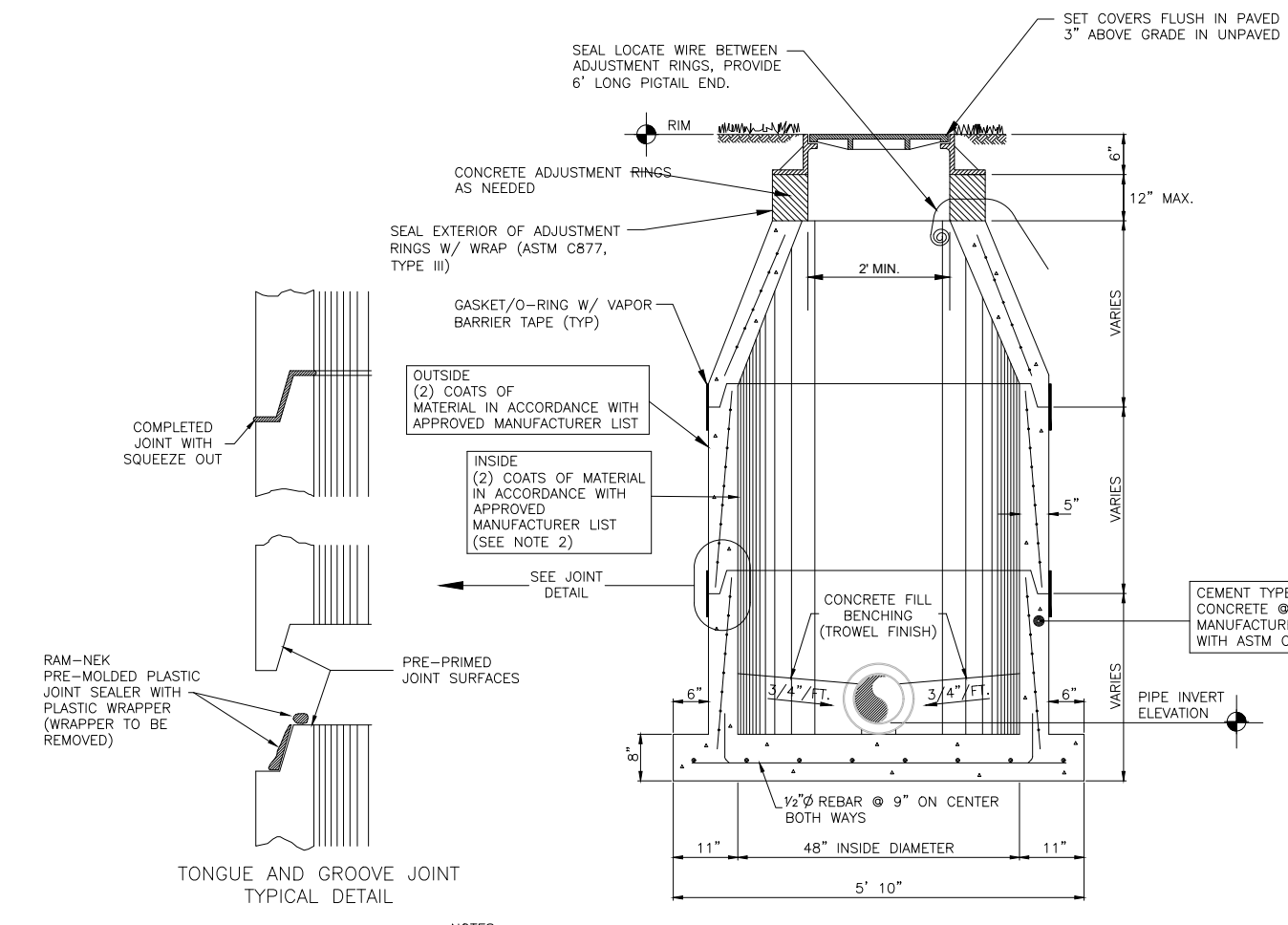


- NOTES:**
- ALL PROPOSED JOINTS SHALL BE RESTRAINED.
 - ALL EXISTING JOINTS WITHIN SHALL BE RESTRAINED IN ACCORDANCE WITH GR-6.
 - ALL PIPING CLEARANCES SHALL BE IN ACCORDANCE WITH CHAPTER 62-555.314 F.A.C.

WATER LINE CROSSING
NOT TO SCALE

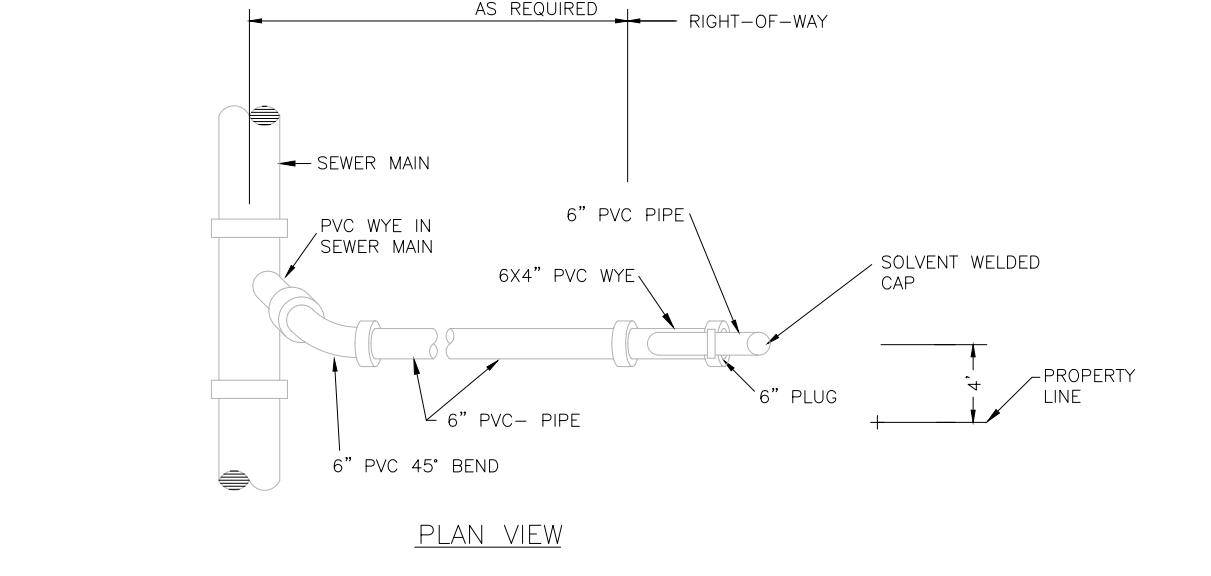


RECLAIMED WATER SERVICE CONNECTION
NOT TO SCALE

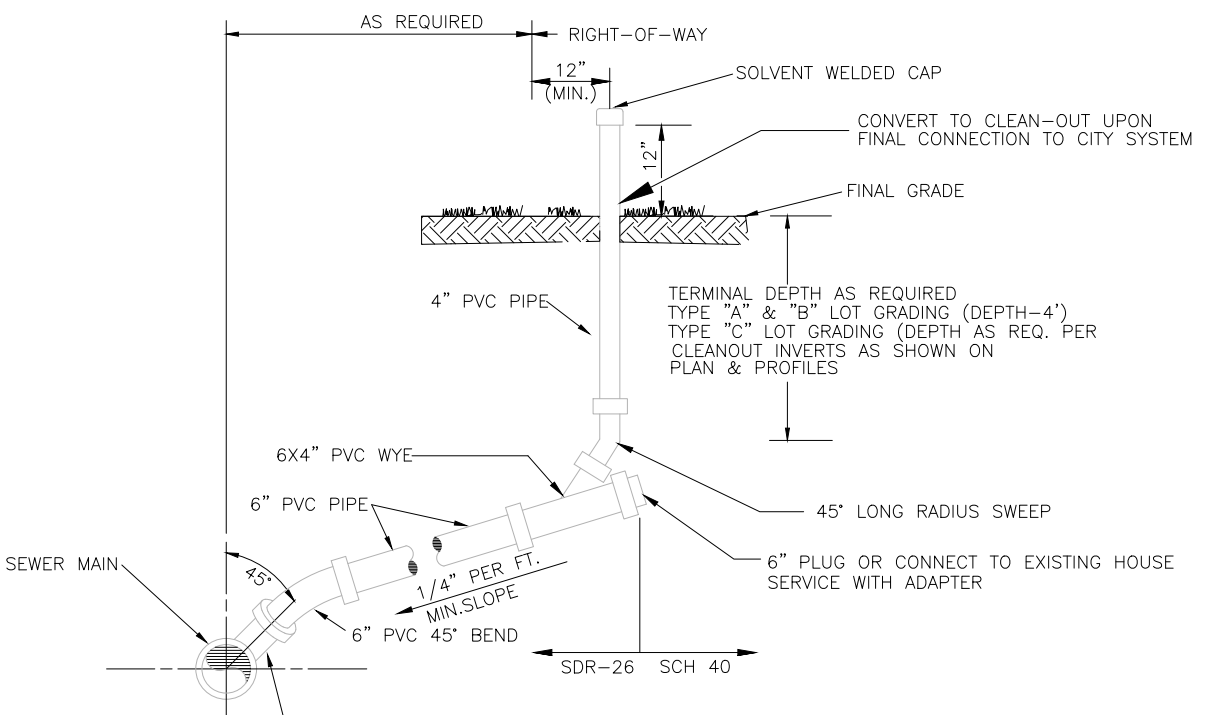


SANITARY PRECAST MANHOLE
NOT TO SCALE

- NOTES:**
- ALTERNATE-PRECAST MANHOLE TOPS MUST BE APPROVED IN ADVANCE.
 - LINER (150 MILS DFT) SHALL BE USED WHERE SHOWN ON DRAWINGS AND/OR REQUIRED BY THE CITY.
 - MANHOLE TOP TO BE CENTERED OVER EFFLUENT PIPE.
 - INSTALL ONE CONTINUOUS PIECE OF RAM-HEX AROUND ENTIRE MATING SURFACE BETWEEN ADJUSTMENT RINGS AND MANHOLE FRAME.



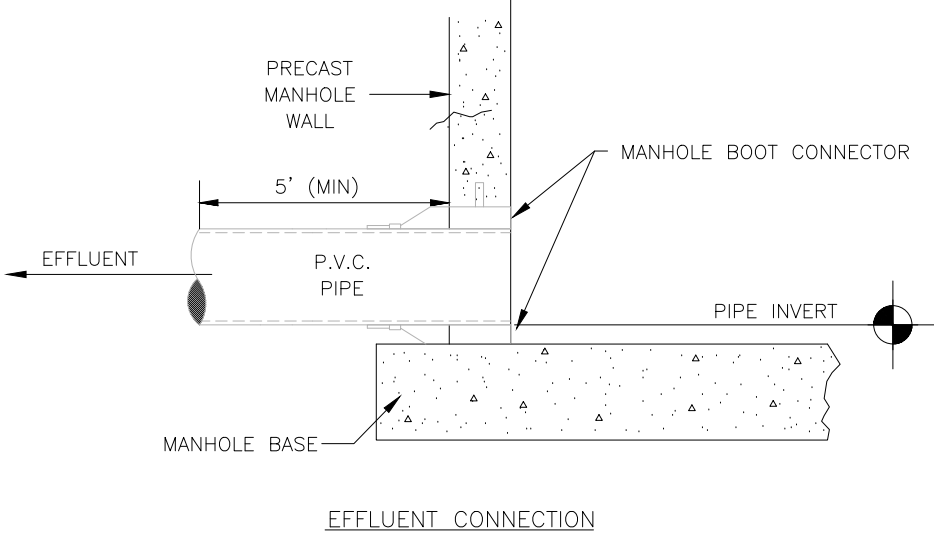
PLAN VIEW



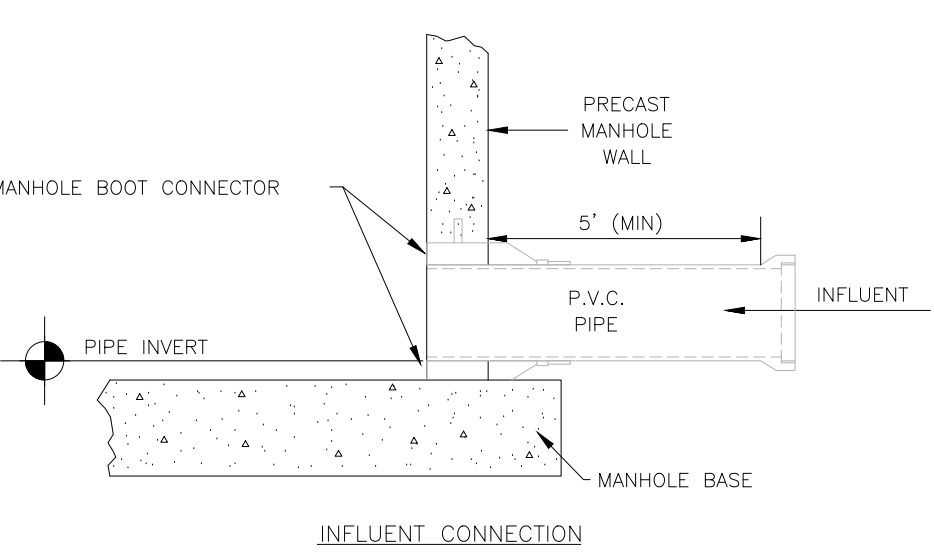
SIDE VIEW

SANITARY SEWER SERVICE
PVC SINGLE SERVICE - NOT TO SCALE

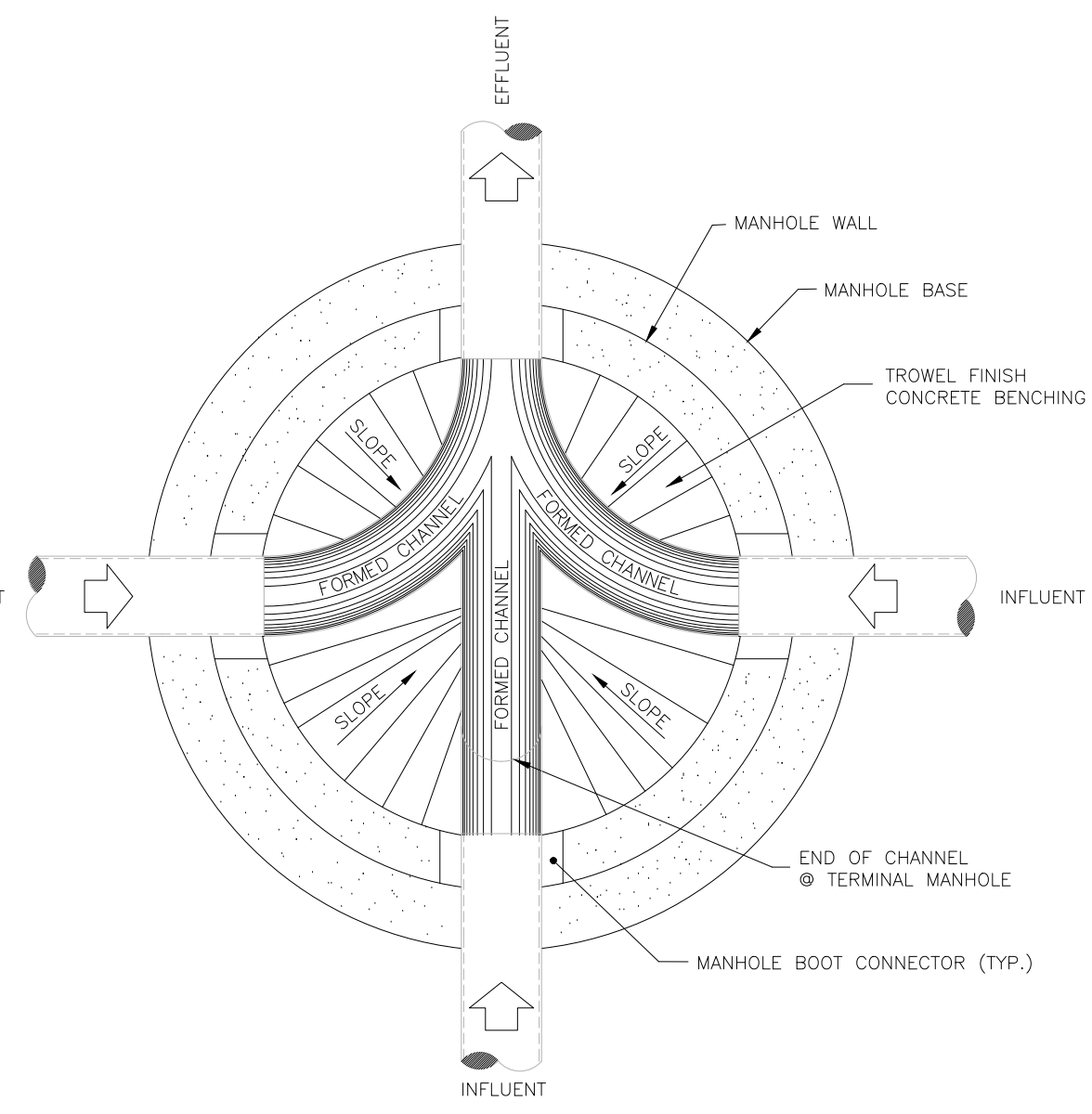
- NOTES:**
- ALL SERVICE LATERALS SHALL BE A MINIMUM OF 6" FROM SEWER MAIN TO RIGHT-OF-WAY LINE.
 - NO BENDS IN SERVICE LINE BETWEEN THE PROPERTY LINE AND THE WYE CONNECTOR.



EFFLUENT CONNECTION



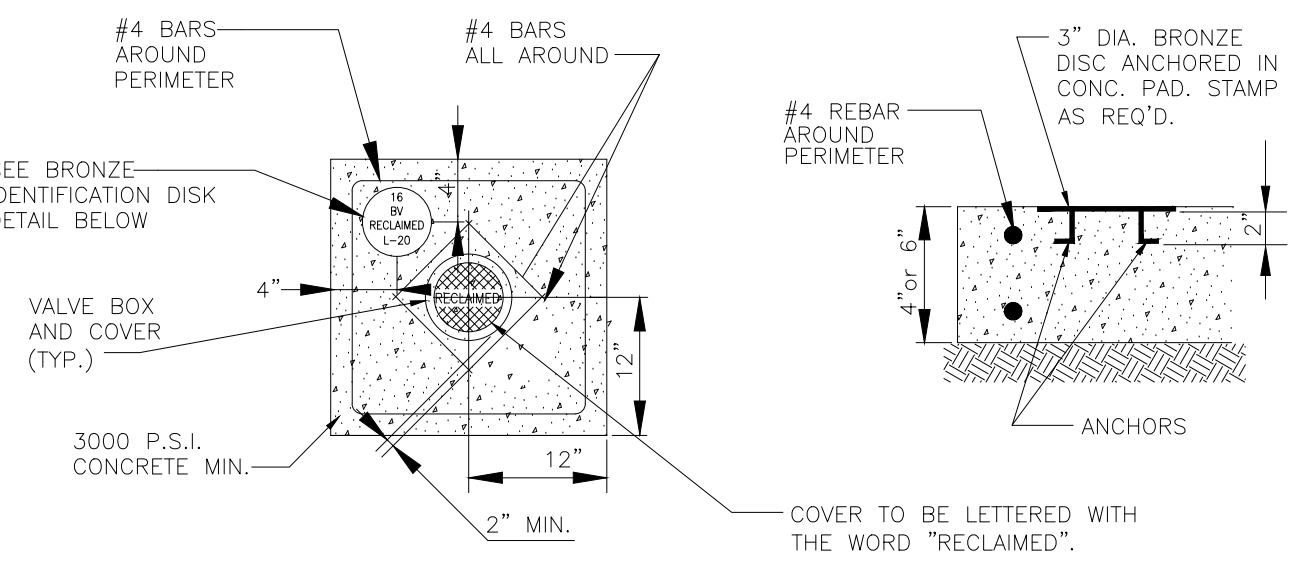
INFLUENT CONNECTION



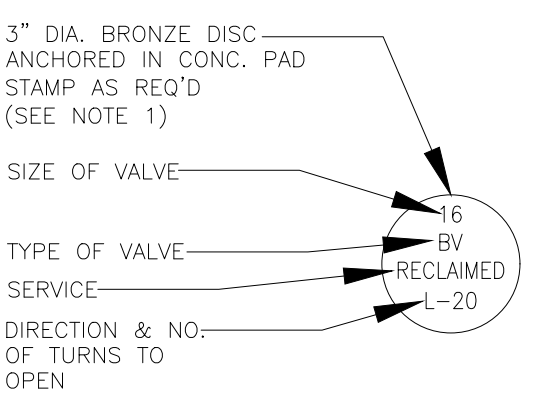
FLOW PATTERNS FOR INVERT CHANNELS

- NOTES:**
- INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS. HALF PIPE INVERT CHANNELS.
 - SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.
 - CHANNELS FOR FUTURE CONNECTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND AND COVERED WITH 1" OF MORTAR.

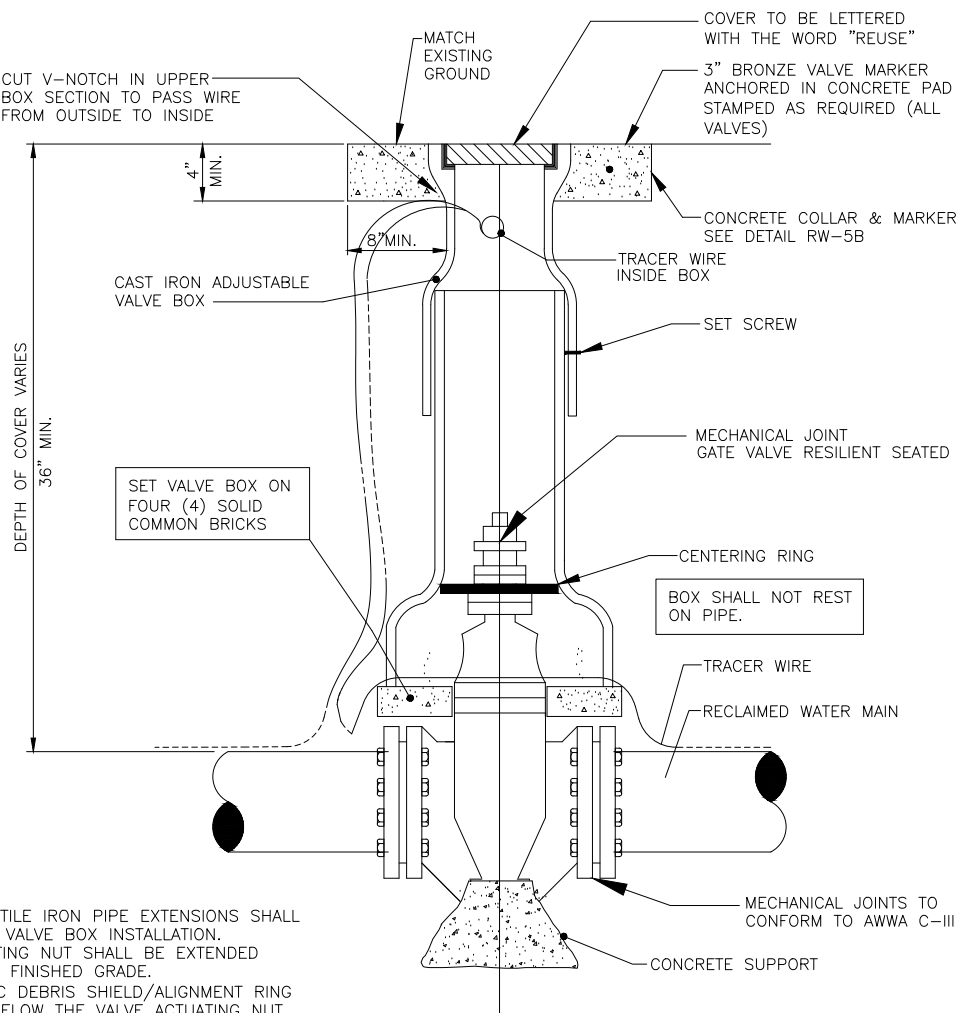
TYPICAL MANHOLE PLAN
NOT TO SCALE



- NOTE:**
- BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES.
 - 6" THICK CONCRETE PAD IN ROADWAY OR PAVED AREAS, 4" THICK CONCRETE PAD IN OTHER AREAS.



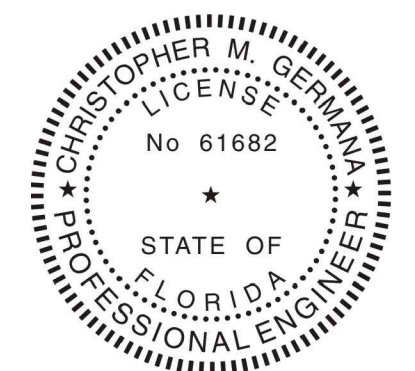
VALVE COLLAR
NOT TO SCALE



- NOTES:**
- PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
 - THE VALVE ACTUATING NUT SHALL BE EXTENDED WITHIN 2 FEET OF FINISHED GRADE.
 - PROVIDE A PLASTIC DEBRIS SHIELD/ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE INFILTRATION. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MICHANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.
 - VALVE BOX SHALL BE A TWO PIECE SCREW TYPE.

GATE VALVE AND BOX
NOT TO SCALE

Digitally signed by
Christopher M Germana
 Date: 2021.12.02
 14:23:38 -05'00'



CHRISTOPHER M. GERMANA, P.E.
 FLORIDA PROFESSIONAL ENGINEER # 61682
 FIRM CERTIFICATE OF AUTHORIZATION # 29279

PIPE CONNECTION TO PRECAST SANITARY MANHOLE
NOT TO SCALE