PROJECT TEAM

CIVIL ENGINEERING

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

SURVEYING

BESH HALFF CONTACT: JOHN T. MCGLOHORN, PSM 902 NORTH SINCLAIR AVENUE TAVARES, FLORIDA 32778 (352) 343-8481

OWNER/DEVELOPER **VENEZIA PARTNERS, LLC.** CONTACT: RON ROBERTS 1190 BUSINESS CENTER DRIVE, SUITE 2000 HEATHROW, FLORIDA 32746 (813) 335-5929

GEOTECHNICAL ENGINEERING ANDREYEV ENGINEERING, INC. CONTACT: ROBERT B. CORNELIUS, PE **1170 WEST MINNEOLA AVENUE** CLERMONT, FLORIDA 34711 (352) 241-0508

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 THE NORTHEAST 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 THE NORTHEAST 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.



Call before you dig

TALICHET PHASE 2 SUBDIVISION CIVIL ENGINEERING PLANS



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



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

SHEET LIST

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- C2 CONSTRUCTION NOTES
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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):
 - DUMPSTER ENCLOSURES
 - SIGNS
- ENTRY WALL FEATURES RETAINING WALLS
- ACCESS GATES GENERATORS

LIFT STATIONS

CONSTRUCTION TRAILERS

- SITE LIGHTING
- FENCES
- AWNINGS ETC.

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 ALARMS FIRE UNDERGROUND
- FIRE ALARM MONITORING DUMPSTER ENCLOSURE



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 CONSTRUCTE 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.

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

ALL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT POLYVINYL CHLORIDE PLASTIC PIPE (PVC) EDITION) AND SHALL HAVE A MINIMUM WOF COMPACT INTO A SUITABLE AND ENDURING BACKFILL, FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN NSF LOGO FOR POTABLE WATER, JOINTS SH 10% PASSING THE NO. 200 SIEVE.

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

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 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 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.

UNLESS OTHERWISE NOTED IN THE PLANS PAVEMENT SECTION REQUIREMENTS CONSTRUCT WATER SERVICE THROUGH TH CONSTRUCTION OF ROADWAY, SUBGRADE PREPARATION, AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND SOILS DETAIL SHEET. 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 2500 PSI. JOINTS SHALL BE EITHER TOOLED OR SAWCUT AT A DISTANCE OF 5' LENGTHS, HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

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

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.

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.

MATERIAL STORAGE/DEBRIS REMOVAL

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

COMPACTION

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

GENERAL DESIGN INTENT

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

R/W RESTORATION

SITE ACCESS

ALL ACCESS TO THE JOB SITE FOR CONSTR

LANDSCAPING

PROVIDE MINIMUM 5' SEPARATION FROM UT

WATER PIPE MATERIALS

WATER SYSTEM SHOP DRAWINGS SHALL BE SPECIFICATIONS.

DUCTILE IRON PIPE (DIP) SHALL BE STANDA (LATEST EDITION). ALL DUCTILE IRON PIPE C104/A21.4 (LATEST EDITION). PIPE JOINTS (LATEST EDITION).

PIPE DETECTOR WITH LOCATOR WIRE SHA SEPARATELY SPECIFIED ON THE PLANS: TRENCH CONDITIONS. FITTINGS FOR DUCTI C153/A21.10 (LATEST EDITION) AND SHALL B

POLYETHYLENE WRAP USED FOR CORROS D1248. THE MINIMUM NOMINAL THICKNESS C105. TRANSMISSION MAIN SHALL BE DIP R

VALVES

GATE VALVES SHALL BE RESILIENT SEAT A APPURTENANCES AS REQUIRED. MANUFAG TESTS LISTED THEREIN WILL BE REQUIRED.

AIR RELEASE VALVES

AIR RELEASE VALVES SHALL BE PLACED AT LOCATION AND METHOD OF INSTALLATION VALVES SHALL BE CRISPN PRESSURE AIR V

WATER SERVICES

POLYETHYLENE (PE) PRESSURE PIPE FOR BE PHILLIPS DRISCO CTS 5100 (DR-9) ASTM BRANCHES, UNIONS AS REQUIRED, PE SER STOP AS SHOWN ON THE DETAIL SHEET, A AND FITTINGS SHALL BE MANUFACTURED B

WHERE APPLICABLE - UNLESS OTHERWISE RECLAIM SERVICE IS NOT PROVIDED. CON BOXES TO FINISHED GRADE AS SHOWN ON

PIPE INSTALLATION

PIPE INSTALLATION OF PVC WATER MAIN S PIPE WATER MAIN SHALL BE IN CONFORMAN

COMPACTED BACKFILL SHALL BE TO 98% M LIFT THICKNESS. OTHER COMPACTION OF MAXIMUM LIFT THICKNESS. SEE PIPE TREN

MINIMUM COVER OVER ALL PIPE SHALL BE DEPTH.

WATER MAINS ARE TO BE INSTALLED SO AS OF 10' FROM ALL OTHER UTILITIES. IF THE SPECIFIED 10 FEET EITHER SIDE OF THE BETWEEN WATER MAIN AND ALL OTHER UTI

ALL WATER MAINS SHALL BE INSTALLED WIT

ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDR

	DATE					
UCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS.						
ILITIES AND TREES WITH INVASIVE ROOT SYSTEMS.	S					
SUBMITTED TO THE ENGINEER AND SHALL MEET TOWN OF HOWEY IN THE HILLS	REVISIO					
4" THROUGH 12" SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C900 (LATEST RKING PRESSURE OF 150 PSI AND A DR (DIMENSION RATIO) OF 18. ALL PVC PIPE SHALL BEAR THE HALL BE OF THE PUSH-ON TYPE AND COUPLINGS CONFORMING TO ASTM D3139, DR18 PIPE.						
ARD PRESSURE CLASS 350 IN SIZES 4" THROUGH 12" AND CONFORM TO ANSI/AWWA C150/A21.50 SHALL HAVE A STANDARD THICKNESS OF CEMENT MORTAR LINING AS SPECIFIED IN ANSI/AWWA SHALL BE OF THE PUSH-ON RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA C111/A21.11	Ö					
ALL BE INSTALLED ON ALL WATER MAINS PER DETAIL. PIPE SIZES GREATER THAN 12" SHALL BE WITH THICKNESS CLASSES TO BE SHOWN BASED ON WORKING PRESSURES, PIPE DEPTH AND LE IRON PIPE AND PVC C-900 PIPE SHALL BE DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA E CEMENT LINED IN CONFORMANCE WITH ANSI/AWWA C104/A21.4 (LATEST EDITION).		UCTION	,	Ш П С		
ON PREVENTION ON DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASTM SHALL BE 0.008 IN. (8 MILS). INSTALLATION OF POLY WRAP SHALL BE IN ACCORDANCE WITH AWWA ATED FOR 250 PSI.		CONSTR		LON		
ND SHALL CONFORM TO ANSI/AWWA C509.87 WITH WRENCH NUT, EXTENSION STEMS AND OTHER CTURER'S CERTIFICATION OF THE VALVES COMPLIANCE WITH AWWA SPECIFICATION C509 AND VALVES SHALL BE CLOW, DRESSER, KENNEDY, AMERICAN.						
HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, I SHALL BE INDICATED ON THE DRAWINGS, OR AS DIRECTED BY THE ENGINEER. AIR RELEASE ALVE TYPE.		C	J			
S, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS. CONTRACTOR SHALL HE CURB STOP AND SET METER BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM		Ц С С Г		N		
WATER SERVICES 1/2" THROUGH 3" SHALL CONFORM TO AWWA C901.88, MIN. 200 PSI. AND SHALL // D-2737, 200 PSI. ALL SERVICES SHALL INCLUDE THE FOLLOWING: LOCKING CURB STOPS, WYE RVICE PIPE AND CORPORATION STOPS. THE SERVICE SHALL BE COMPLETE THROUGH THE CURB ND SHALL BE OF THE TYPE REQUIRED FOR COMPATIBILITY WITH THE SERVICE LINES SPECIFIED, Y FORD.				SUBDIVISIC		
NOTED IN PLANS, UTILITY COMPANY SHALL PROVIDE AND INSTALL IRRIGATION METERS. WHERE TRACTOR SHALL CONSTRUCT IRRIGATION SERVICE THROUGH THE CURB STOP AND SET NEW THE WATER SYSTEM DETAIL SHEET.				0,		-LURIUA
HALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON NCE WITH AWWA C600.87.					- - - - - - - - - - - - - - - - - - -	ו חב חורבא, ו
IAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12" MAXIMUM BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12" CHING DETAILS.						
36" FROM TOP OF PIPE TO FINISHED GRADE. SEE PLAN AND PROFILE SHEETS FOR REQUIRED	<u></u>)				
S TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18" OR A MINIMUM HORIZONTAL CLEARANCE E MINIMUM CLEARANCE CAN NOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE E CROSSING. HORIZONTAL AND VERTICAL MINIMUM SEPARATION DISTANCE REQUIREMENTS LITIES SHALL COMPLY WITH 62-555.314 (1), (2), (3) AND (4), FAC.	GINEERIN	ATES, LLC	EOLA AVENUE		ATION NUMBER: 29279 © 2020	
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CHRISTO	PHER M. GERI	MANA, P.E.

SCALE: NTS

DATE: 08-25-2021

SHEET

C2



EXTERIOR PARCEL LINE
EXISTING CONCRETE
TREE TO REMAIN

DATE
REVISIONS
o Ž
DEMOLITION PLAN
TALICHET PHASE 2 SUBDIVISION HOWEN THE HILLS, FLORIDA
GERMANA ENGINEERING AND ASSOCIATES, LLC AND ASSOCIATES, LLC 1120 WEST MINNEOLA AVENUE (352) 242-9329 WWW.GERMANAENGINEERING.COM COPYRIGHT © 2020
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E CONSTRUCTION STAKEOUT SHALL BE PERFORMED THE DIRECTION OF A FLORIDA REGISTERED SURVEYOR. D FILE WILL BE PROVIDED TO AID IN THE SITE	ġ l	
RUCTION STAKEOUT. ANY DISCREPANCIES FOUND EN THE AUTOCAD FILES SHALL BE BROUGHT TO THE ERS ATTENTION FOR CLARIFICATION PRIOR TO THAT UT. T SITE SHALL COMPLY WITH THE FLORIDA BIBILITY CODE FOR BUILDING CONSTRUCTION (FBC) 2020	Z -	7
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ATION. ME OWNERS ASSOCIATION SHALL MAINTAIN ALL N AREAS, FENCES, AND RETENTION AREAS. EWALKS CONSTRUCTED THROUGHOUT THE ENTIRE SITE DE CONSTRUCTED IN COMPLIANCE WITH THE F HOWEY IN THE HILLS LAND DEVELOPMENT ONS AND CATIONS. RACTS SHALL BE DEDICATED TO THE HOME OWNERS ATION. FENCES, AND SIGNS SHALL BE OWNED AND MAINTAINED	SUBDIV	
HOME OWNER'S ASSOCIATION. LITY LINES TO BE DESIGNED TO MEET THE TOWN OF IN THE HILLS STANDARDS. INSTRUCTION MATERIAL AND OTHER PROPOSED EMENTS SHALL MEET THE APPLICABLE CODES OF THE OF HOWEY IN THE HILLS, TOWN OF HOWEY IN THE HILLS S, OR APPROVED EQUALS, AND WILL BE UTILIZED ON THE ONSTRUCTION PLANS.		CT # GE0082021
ACREAGE % OVERALL OPEN SPACE ACREAGE 2.06 AC 20.50% 2.06 AC	N□	PROJE
2.01 AC 20.00% 2.01 AC N THE HILLS 0.86 AC 8.56% - 5.12 AC 50.94% - 10.05 100.00% 4.07 AC	HAS	Z
		VISIC
24" WHITE PAINTED STOP BAR		
30" STOP SIGN (R1-1) AND STREET SIGN 2' MIAMI CURB (TYPICAL)		S
HANDICAP RAMP PER FDOT INDEX 304 W/ CAST IN PLACE DETECTABLE WARNING MAT IN BRICK RED	AL	Ą
2' SPILL-OUT MIAMI CURB		IN THE HILLS, FLORIC
50' ROW		НОМЕҮ
So now 4' - 7' - 2' - 24' ROADWAY - 2' - 7' - 4' - 10	RING	M 9279
TYPICAL 50' RIGHT-OF-WAY NTS	GERMANA ENGINEE AND ASSOCIATES, LLC 1120 WEST MINNEOLA AVENUE CLERMONT, FL 34711	(352) 242-9329 WWW.GERMANAENGINEERING.COI CERTIFICATE OF AUTHORIZATION NUMBER: 2: COPYRIGHT © 2020
SOPHER M. G. A. S.		
TO STATE OF	SCALE: 1" =	= 40'
SONAL ENTIT	DATE: 08-25	5-2021

SHEET C4

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CHRISTOPHER M. GERMANA, P.E.



DATE	
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SUBDIVISION GRADING AND DRAINAGE PLAN	
TALICHET PHASE 2 SUBDIVISION BOWEY IN THE HILLS, FLORIDA	
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SCALE: 1" = 40'	
DATE: 08-25-2021	





NOTE: ALL UTILITY CONSTRUCTION TO CONFORM TO THE TOWN OF HOWEY IN THE HILLS CONSTRUCTION STANDARDS.

UTILITY LEGEND

	🕅 🕅 PROPOSED WATER SERVICE (TYPICAL)	
	PROPOSED FIRE HYDRANT ASSEMBLY	sanF
-WAT	EXISTING WATER MAIN	< F
-WAT	PROPOSED WATER MAIN	E
-RW	EXISTING RECLAIMED WATER MAIN	
	PROPOSED RECLAIMED WATER MAIN	F
	PROPOSED RECLAIMED SERVICE (TYPICAL)	

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.

DATE	
REVISIONS	
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SUBDIVISION UTILITY PLAN	
TALICHET PHASE 2 SUBDIVISION	
GERMANA ENGINEERING AND ASSOCIATES, LLC 1120 WEST MINNEOLA AVENUE CLERMONT, FL 34711 (352) 242-9329 WWW.GERMANAENGINEERING. COM CERTIFICATE OF AUTHORIZATION NUMBER: 29279 COPYRIGHT © 2020	
SCALE: 1" = 40'	
SCALE: 1" = 40' DATE: 08-25-2021	

EXISTING SANITARY LINE

PROPOSED SANITARY LINE

PROPOSED SANITARY SERVICE (TYPICAL)

EXTERIOR PARCEL LINE

EXISTING CONCRETE

PROPOSED CONCRETE PROJECT PROPERTY LINE





ONTROL NOTES					\square
LUTION PREVENTION PLAN THE FACT THAT THIS PROJECT IS PERMITTED UNDE RMWATER DISCHARGE FROM LARGE AND SMALL C REMENTS OF THIS PERMIT, AND TO UNDERTAKE AN	R THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION ONSTRUCTION ACTIVITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE IN MEASURES NECESSARY TO COMPLY WITH SAID REQUIREMENTS.	DATE			
E TO WEATHER CONDITIONS, PHASING OF CONSTR COMPLY WITH THE N.P.D.E.S. PERMIT THAT ARE N TEVER MEANS ARE NECESSARY TO PREVENT THE I	RUCTION ACTIVITIES, QUANTITY AND TYPE OF MATERIALS, ETC., TO TAKE NOT OUTLINED IN THESE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR DISCHARGE OF POLITITANTS, INCLUDING BUT NOT UMITED TO TURBID WATER				
RECEIVER AND AND THE RECEIVERT THE RECEIVERT THE RECEIVERT THE RECEIVER ADVISED THAT A SEPARATE STORMWATER PO	DLLUTION PREVENTION PLAN (S.W.P.P.P.) HAS BEEN PREPARED FOR THIS				
MADE PART OF THE CONSTRUCTION DOCUMENTS. SENTS THE MINIMUM AMOUNT OF EROSION AND SE DDITIONAL MEASURES OR PRACTICES THAT MAY E JLLY COMPLY WITH ALL GOVERNMENTAL RULES AN	EDIMENT CONTROL MEASURES, IN THE OPINION OF THE ENGINEER, THAT MAY BE NECESSARY TO CONTROL EROSION, TURBID DISCHARGE, FUGITIVE ID/OR PERMIT REQUIREMENTS.				
RESENTS A BASIC EROSION AND SEDIMENT CONTR ND AFTER CONSTRUCTION OF THE PROJECT. NTROL TO BE UTILIZED DURING CONSTRUCTION AT Y CAUSE EROSION PROBLEMS. EROSION CONTROI IED BY THE ENGINEER.	OL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF-SITE AREAS DESIGNATED BY THE ENGINEER OR AREAS ON SITE WHERE MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR	REVISIONS			
SEDIMENT CONTROL MEASURES SHALL BE INSTAI S. ONE OF THE FIRST CONSTRUCTION ACTIVITIES S URES AROUND THE PERIMETER OF THE PROJECT RESOURCES.	LLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT				
D SEDIMENT CONTROL MEASURES SHALL BE COOR DL THROUGHOUT THE CONSTRUCTION PHASE. TEM S.	DINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE, IPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU				
CONTROL MEASURES SHALL BE ADEQUATELY MAIN	TAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF	Ň			
JLD BE REMOVED AFTER EACH RAINFALL. THEY MU THE BARRIER. I TRAPS SHALL NOT BE STOCKPILED OR DISPOSED COURSE BY RUNOFF OR HIGH WATER. REMAINING IN PLACE AFTER THE BARRIERS ARE NO EEDED.	D LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING	C			
TILIZES STANDARDS STRENGTH OR EXTRA STRENG D FLOWS ARE EXPECTED. IT FENCE SHALL NOT EXCEED 36-INCHES (HIGHER I	GTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE				
BE PURCHASED IN A CONTINUOUS ROLL CUT TO TH H SHALL BE SPLICED TOGETHER ONLY AT A SUPPO A MAXIMUM OF 10 FEET APART AT THE BARRIER LO ABRIC IS USED WITHOUT THE WIRE SUPPORT FENO VATED APPROXIMATELY 4 INCHES WIDE AND 4 INCH	HE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE RT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. CATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). CE, POST SPACING SHALL NOT EXCEED 6 FEET. HES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.				
TH FILTER FABRIC IS USED, A WIRE MESH SUPPOR' WIRE STAPLES AT LEAST 1-INCH LONG, TIE WIRES (TEND MORE THAN 36 INCHES ABOVE THE ORIGINA FILTER FABRIC SHALL BE STAPLES OR WIRED TO	T FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE , OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 L GROUND SURFACE. THE FENCE, AND 8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE E ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO				
ILTER FABRIC AND CLOSURE POST SPACING ARE L PLED OR WIRE DIRECTLY TO THE POSTS WITH ALL CKFILLED AND SOIL COMPACTED OVER THE FILTER	JSED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED IN SUCH A CASE, OTHER PROVISION OF ITEM NO. 6 APPLYING. R FABRIC.		ວ	L	
BE REMOVED WHEN THEY HAVE SERVED THEIR USE	EFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN				
VIAIN LENANCE TER BARRIERS SHALL BE INSPECTED IMMEDIATEL HALL BE MADE IMMEDIATELY. SEDIMENT FENCE OR FILTER BARRIER DECOMPOS STILL NECESSARY, THE FABRIC SHALL BE REPLACE JLD BE REMOVED AFTER EACH STORM EVENT. THE	Y AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. E OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE D PROMPTLY. Y MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD				T # GE0082021
ER. REMAINING IN PLACE AFTER THE SEDIMENT FENCE 'ING GRADE, PREPARED, AND SEEDED.	OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO	(\sim		ROJEC
N A SINGLE ROW, LENGTHWISE, ORIENTED PERPEN	IDICULAR TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY	l	Ш		ш
R INSTALLING A STRAW BALE BARRIER FOR SHEET BE INSTALLED SUCH THAT UNDERCUTTING BENEAT	FLOW APPLICATIONS APPLY HERE, WITH THE FOLLOWING ADDITION. TH THE BALES IS MINIMIZED BY THE USE OF ROCK CHECK DAMS PLACED			Z	
BALES. TENDED TO SUCH A LENGTH THAT THE BOTTOMS (THAT SEDIMENT-LADEN RUNOFF WILL FLOW EITHEF	OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST R THROUGH OR OVER THE BARRIER BUT NOT AROUND IT.			S I C	
NINTENANCE ISPECTED IMMEDIATELY AFTER EACH RAINFALL AN	ID AT LEAST DAILY DURING PROLONGED RAINFALL.				
BE PAID TO THE REPAIR OF DAMAGED BALES, END ARRIERS OR REPLACEMENT OF BALES SHALL BE A	RUNS, AND UNDERCUTTING BENEATH BALES. CCOMPLISHED PROMPTLY.	-		UBL	
JLD BE REMOVED AFTER EACH RAINFALL. THEY MU THE BARRIER. REMAINING IN PLACE AFTER THE STRAW BALE BAR ED AND SEEDED	IST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY			Σ.	
NT CONTROL PRACTICES TICES SHALL BE FUNCTIONAL THROUGHOUT EART	H DISTURBING ACTIVITY.		AL		PA
METER CONTROLS, AND OTHER PRACTICES INTEN EN DAYS FROM THE START OF GRUBBING. THEY SH	DED TO TRAP SEDIMENT SHALL BE IMPLEMENTED AS THE FIRST STEP OF IALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS				s, flori
NON-STRUCTURAL PRACTICES	INABLE AND DISTURBED AREAS SHALL BE RE-VEGETATED AS SOON AS IT IS				HILLS
G OR CONSTRUCTION. RY SOIL STABILIZATION SHALL BE APPLIED TO DEN AND SHALL ALSO BE APPLIED WITHIN SEVEN DAYS	UDED AREAS WITHIN FOURTEEN DAYS AFTER FINAL GRADE IS REACHED ON S TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE, WHERE				EY IN TH
CONTROL FEATURES SHALL BE ACCEPTABLY L BE REMOVED OR REPLACED BY THE TO THE OWNER. ALL WORK SHALL BE DANCE WITH THE SPECIFICATIONS.	INLET PROTECTION 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				МОН
RS FROM DENUDED AREAS SHALL BE MENT BARRIERS. SEDIMENT BARRIERS SUCH OR DIVERSIONS TO SETTLING FACILITIES JACENT PROPERTIES AND WATER RESOURCES	CONSTRUCTION ACCESS ROUTES MEASURES SHALL BE TAKEN TO PREVENT SOIL TRANSPORT ONTO SURFACES OR PUBLIC ROADS WHERE RUNOFF IS NOT CHECKED.	RING		l 279	
LL BE PROTECTED FROM EROSION BY DEVICES SUCH AS STRAW BALE DIKES OR 6, AND THESE PERIMETER CONTROL DEVICES 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, PROVIDES ADEQUATE COVER AND IS MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY AND TO SURVIVE ADVERSE WEATHER CONDITIONS.	GINEE	LEV, LLU LA AVENUE - 34711	329 NEERING.COM TION NUMBER: 29	2020
DULE RUCTURAL PROTECTION - INSPECT EVERY 7 DAYS	OR AFTER EACH RAINSTORM PRODUCING RUNOFF. REPAIR AS REQUIRED.	EN(MINNEC MINNEC	52) 242-9 ANAENGI UTHORIZAT	PYRIGHT ©
RESTRICTED BY SEDIMENT. ISPECT AFTER SPROUTING OCCURS AND REPLANT D. MAINTAIN ESTABLISHED COVER AT MAXIMUM 6" F	BARE AREAS. INSPECT ESTABLISHED COVER EVERY 15 DAYS FOR DAMAGE; EIGHT. IRRIGATE AS REQUIRED DURING DRY PERIODS TO MAINTAIN LIVE	RMANA	ANU AX 1120 WES ^T CLEF	(3 WWW.GERM. CERTIFICATE OF A	00
SEQUENCE TROL MEASURES		GEF			
TOCKPILE TOPSOIL	TOPHER M. G. A.				
MANAGEMENT MEASURES	<i>H</i> No 61682	sc	CALE: 1" =	= 80'	
KING	DI STATE OF	DAT	TE: 08-25	-2021	
DN NG	MOS/ONAL ENNIN				

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

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DATE	
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VIA BELLA COURT CROSS SECTIONS	
FALICHET PHASE 2 SUBDIVISION	IRIDA PROJECT # GE0082021
	HOWEY IN THE HILLS, FLOF
GERMANA ENGINEERING AND ASSOCIATES, LLC 1120 WEST MINNEOLA AVENUE (352) 242-9329 WWW.GERMANAENGINEERING. COM CERTIFICATE OF AUTHORIZATION NUMBER: 29279	COPYRIGHT © 2020
SCALE: 1" = 10'	
DATE: 08-25-2021 SHEET C9	

3000 PSI CONCRETE-BROOM FINISH EXPOSED SURFACE SAW JOINTS @ 8'-0" O.C.-1/4 DEPTH OF CONCRETE ON

12" STABILIZED SUBGRADE WITH A MINIMUM L.B.R. OF 40, COMPACTED TO 98% OF MAXIMUM DENSITY PER AASHTO T-180

8" LIMEROCK BASE, PRIMED, COMPACTED TO 98% OF MAXIMUM DENSITY

TYPE S-III A.C.S.C. PAVEMENT PER PLANS & SPECIFICATIONS

REVISIONS DATE
ÖZ
CONSTRUCTION DETAILS
TALICHET PHASE 2 SUBDIVISION HOWEY IN THE HILLS, FLORIDA
GERMANA ENGINEERING AND ASSOCIATES, LLC AND ASSOCIATES, LLC 120 WEST MINNEOLA AVENUE (352) 242-9329 WWW.GERMANAENGINEERING.COM COPYRIGHT © 2020
SCALE: NTS
DATE: 08-25-2021 SHEET
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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 ALL PIPING SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.
- WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". PIPES 14" OR LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, FOR LAYING, SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S LATEST RECOMMENDATIONS. DEPTH OF WATER LINES TO BE 36" MINIMUM COVER FROM FINISH GRADE.
- WATER MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. 6. ALL WATER MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON.
- ALL CASINGS UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE BACK OF CURB. DISINFECTING: FOLLOWING THE PRESSURE TESTING, THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE NEW WATER DISTRIBUTION SYSTEM. DISINFECTION 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 C605/M23 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), 622-555.320 (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 STRIPED 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 STRIPE 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 LIKE UNDERGROUND PIPE.) [FAC 62\CELL 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 381.0065(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. - 361 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 381.0065(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: OR 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.

LOCATING WIRE SPLICING

NOT TO SCALE

TEMPORARY JUMPER CONNECTION

					TABLE (OF THR	UST RE	STRAINT	LENGT	45					
PIPE	90' BEND		4 BE	-5* IND	22 BE	1/2* END	11 BE	1/4" IND	те	ES	DEAD E PLI	END & JG		REDUCER	
(inches)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	P.V.C. (L)	DUCTILE IRON (L)	PIPE SIZES	P.V.C. (L)	DUCTIL IRON (
4	20'	16'	8'	7'	4'	3'	2'	2'	15'	10'	45'	29'	6"×4"	33'	21'
6	28'	22'	12'	9'	6'	4'	3'	2'	33'	21'	63'	40'	8"×6"	34'	22'
8	36'	29'	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"×10"	34'	22'
12	50'	40'	21'	17'	10'	8'	5'	4'	84'	54'	116'	74'	16"×12"	63'	40'
16	63'	51'	26'	21'	13'	10'	6'	5'	116'	74'	148'	94'	18"x16"	33'	21'
18	70,	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'			

- FACTOR OF 1.5 FOR THE DATA.
- 3. ALL FITTINGS & VALVES SHALL HAVE RESTRAINED WITH "MEGA-LUG' RESTRAINTS, & ALL BELL & SPIGOT JOINTS TO BE RESTRAINED WITH A RESTRAINING HARNESS WITHIN THE REQUIRED LENGTH OF RESTRAINED PIPE (L). THRUST RESTRAINT

NOT TO SCALE

COLOR CODING: POTABLE WATER SYSTEM: BLUE

