

DRAINAGE SUMMARY:

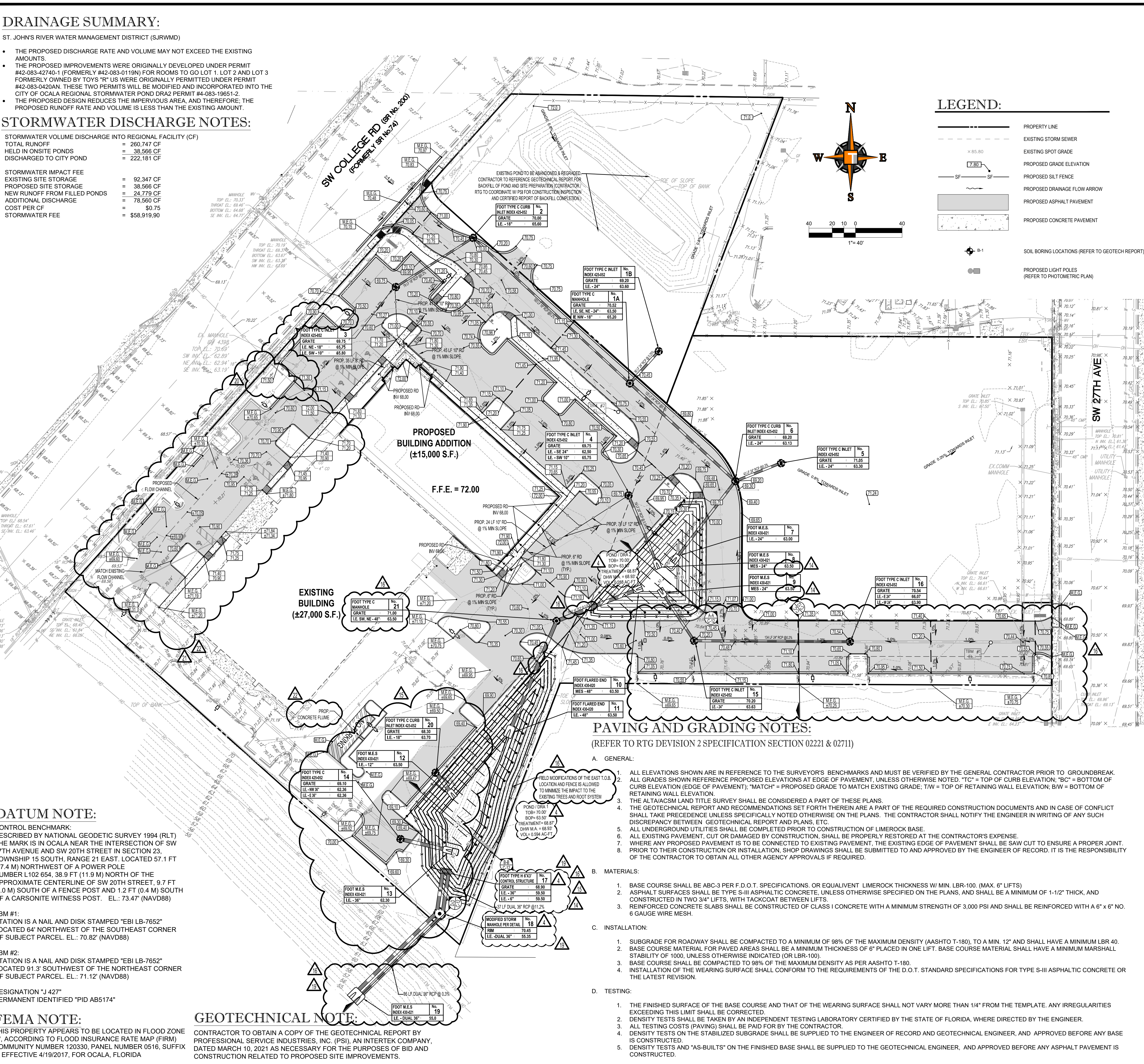
ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT (SRJWMD)

- THE PROPOSED DISCHARGE RATE AND VOLUME MAY NOT EXCEED THE EXISTING AMOUNTS.
- THE PROPOSED IMPROVEMENTS WERE ORIGINALLY DEVELOPED UNDER PERMIT #42-083-42740-1 (FORMERLY #42-083-0119N) FOR ROOMS TO GO LOT 1, LOT 2 AND LOT 3 FORMERLY OWNED BY TOYS "R" US WERE ORIGINALLY PERMITTED UNDER PERMIT #42-083-0420AN. THESE TWO PERMITS WILL BE MODIFIED AND INCORPORATED INTO THE CITY OF OCALA REGIONAL STORMWATER POND DRAZ PERMIT #4-083-19651-2.
- THE PROPOSED DESIGN REDUCES THE IMPERVIOUS AREA, AND THEREFORE, THE PROPOSED RUNOFF RATE AND VOLUME IS LESS THAN THE EXISTING AMOUNT.

STORMWATER DISCHARGE NOTES:

STORMWATER VOLUME DISCHARGE INTO REGIONAL FACILITY (CF)
TOTAL RUNOFF = 260,747 CF
HELD IN ONSITE PONDS = 38,586 CF
DISCHARGED TO CITY POND = 222,161 CF

STORMWATER IMPACT FEE = 92,347 CF
EXISTING SITE STORAGE = 38,586 CF
PROPOSED SITE STORAGE = 24,773 CF
NEW RUNOFF FROM FILLED PONDS = 78,560 CF
ADDITIONAL DISCHARGE = \$0.75
COST PER CF = \$58,919.90



DATUM NOTE:

CONTROL BENCHMARK:
DESCRIBED BY NATIONAL GEODETIC SURVEY 1994 (RLT)
THE MARK IS IN OCALA NEAR THE INTERSECTION OF SW 27TH AVENUE AND SW 20TH STREET IN SECTION 23, TOWNSHIP 15 SOUTH, RANGE 21 EAST. LOCATED 57.1 FT (17.4 M) NORTHWEST OF A POWER POLE NUMBER L102 654. 38.9 FT (11.9 M) NORTH OF THE APPROXIMATE CENTERLINE OF SW 20TH STREET, 9.7 FT (3.0 M) SOUTH OF A FENCE POST AND 1.2 FT (0.4 M) SOUTH OF A CARSONITE WITNESS POST. EL.: 73.47' (NAVD88)

TBM #1:
STATION IS A NAIL AND DISK STAMPED "EBI LB-7652"
LOCATED 64' NORTHWEST OF THE SOUTHEAST CORNER OF SUBJECT PARCEL. EL.: 70.82' (NAVD88)

TBM #2:
STATION IS A NAIL AND DISK STAMPED "EBI LB-7652"
LOCATED 91.3' SOUTHWEST OF THE NORTHEAST CORNER OF SUBJECT PARCEL. EL.: 71.12' (NAVD88)

DESIGNATION "J 427"
PERMANENT IDENTIFIED "PID AB5174"

FEMA NOTE:

THIS PROPERTY APPEARS TO BE LOCATED IN FLOOD ZONE "X", ACCORDING TO FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY NUMBER 120330, PANEL NUMBER 0516, SUFFIX E, EFFECTIVE 4/19/2017, FOR OCALA, FLORIDA

GEOTECHNICAL NOTE:

CONTRACTOR TO OBTAIN A COPY OF THE GEOTECHNICAL REPORT BY PROFESSIONAL SERVICE INDUSTRIES, INC. (PSI), AN INTERTEK COMPANY, DATED MARCH 10, 2021 AS NECESSARY FOR THE PURPOSES OF BID AND CONSTRUCTION RELATED TO PROPOSED SITE IMPROVEMENTS.

LEGEND:

- PROPERTY LINE
- EXISTING STORM SEWER
- EXISTING SPOT GRADE
- PROPOSED GRADE ELEVATION
- PROPOSED SILT FENCE
- PROPOSED DRAINAGE FLOW ARROW
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- SOIL BORING LOCATIONS (REFER TO GEOTECH REPORT)
- PROPOSED LIGHT POLES (REFER TO PHOTOMETRIC PLAN)

STORM DRAINAGE NOTES:

(REFER TO RTG DEVISION 2 SPECIFICATION SECTION 02221 & 02711)

A. GENERAL:

- DISTANCES AND LENGTHS OF PIPE SHOWN ON PLANS ARE REFERENCED TO THE CENTER OF STRUCTURES.

B. MATERIALS:

- REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM C-76, CLASS III, WALL THICKNESS "B", LATEST REVISION. RUBBER GASKETS OR OTHER MANUFACTURER SUPPLIED JOINT SEALER SHALL BE USED.
- ALL PVC DRAINAGE PIPE AND FITTINGS SHALL BE NON-PRESSURE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO ASTM D 3034, SDR 35, WITH PUSH-ON RUBBER GASKET JOINTS.
- ALL HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M - 294 LATEST REVISIONS. ALL PIPING TO BE NON-PERFORATED TUBING.
- PROPOSED "CURB INLET" STRUCTURES SHALL BE STANDARD FDOT TYPE '9' CURB INLET TOPS, PER FDOT INDEX #214.
- PROPOSED "GRATE INLETS" SHALL BE STANDARD FDOT TYPE 'C' DITCH BOTTOM INLETS, PER FDOT INDEX #232.
- PROPOSED CONTROL STRUCTURES SHALL BE STANDARD FDOT TYPE 'C' DITCH BOTTOM INLETS, PER FDOT INDEX #232. CONTROL STRUCTURES SHALL HAVE SKIMMERS ATTACHED ON ALL FOUR SIDES AND BE INSTALLED PER FDOT INDEX #240.
- PROPOSED BUBBLER STRUCTURES SHALL BE STANDARD FDOT TYPE 'C' DITCH BOTTOM INLETS, PER FDOT INDEX #232.

C. INSTALLATION:

- PIPE SHALL BE PLACED ON A MINIMUM OF 8 INCHES STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION AND OTHER FOREIGN FORMATIONS, AND CONSTRUCTED TO A UNIFORM GRADE AND LINE.
- BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL, WELL TAMPED IN LAYERS NOT TO EXCEED A HEIGHT OF 12 INCHES ABOVE PIPE AS SHOWN ON THE PLANS.
- PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.

OPERATION AND MAINTENANCE GUIDELINES:

STORMWATER MANAGEMENT SYSTEMS SHOULD BE INSPECTED ON A ROUTINE BASIS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. INSPECTIONS SHOULD BE PERFORMED ON A MONTHLY AND SEMI-ANNUAL BASIS FOLLOWING MAJOR STORMS. SYSTEMS THAT INCORPORATE PERCOLATION ARE MOST CRITICAL, SINCE POOR MAINTENANCE PRACTICES CAN SOON RENDER THEM INEFFECTIVE. RECORDS SHOULD BE KEPT ON ALL MAINTENANCE OPERATIONS TO HELP PLAN FUTURE WORK AND IDENTIFY FACILITIES REQUIRING ATTENTION.

CONSIDERABLE DAMAGE, AS WELL AS LOSS OF STRUCTURES AND EFFECTIVE USE OF THE STORMWATER FACILITIES CAN RESULT FROM A FAILURE TO PROTECT AND MAINTAIN THE DRAINAGE SYSTEMS. PROVIDING MAINTENANCE IN A TIMELY MANNER OFTEN SAVES COSTLY REPAIR JOBS WHEN THE UNUSUAL STORMS OCCUR.

REMEMBER, THE SURFACE WATER MANAGEMENT PERMIT DICTATES THAT THE SYSTEM MUST BE MAINTAINED AND THAT THE OWNER, ROOMS TO GO, IS RESPONSIBLE FOR SYSTEM MAINTENANCE.

A. GENERAL

NORMAL MAINTENANCE REQUIREMENTS ARE AS FOLLOWS:

- RETENTION AREAS AND SWALES SHOULD BE MOWED AT REGULAR INTERVALS. ALL CLIPPINGS SHOULD BE PICKED UP AND ANY ACCUMULATED DEBRIS SHOULD BE REMOVED.
- SOD SHOULD BE ROUTINELY THATCHED.
- THE BOTTOM AREA OF DRY BASINS SHOULD BE PERIODICALLY BROKEN WITH A DISK TO MAINTAIN DESIGN PERCOLATION RATE.
- SOD COVER ON SLOPES AND EMBANKMENTS SHOULD BE INSPECTED AND REPAIRED OR REPLACED AS NECESSARY.
- PERIODICALLY, FOLLOWING A STORM EVENT, THE OUTFALL STRUCTURE SHOULD BE INSPECTED TO CHECK THAT THE ORIFICE OR WEIR IS NOT CLOGGED AND IS FLOWING AT A SUBSTANTIAL RATE.
- THE DISCHARGE PIPE(S) SHOULD BE VISUALLY INSPECTED TO DETERMINE IF THE PIPE(S) REQUIRE CLEANING. ALL DEBRIS FOUND IN THE PIPE SHOULD BE REMOVED.
- INLET STRUCTURES SHOULD BE INSPECTED AFTER EACH STORM. ALL DEBRIS ACCUMULATED IN THE SUMP OR ON THE GRATE SHOULD BE REMOVED.
- OUTLETS SHOULD BE INSPECTED FOR CLOGGING AND EROSION.
- BEAMS AND OTHER STRUCTURES SHOULD BE INSPECTED FOR BREAKS. REPAIRS, IF NECESSARY, SHOULD BE PERFORMED IMMEDIATELY.

B. CATCH BASINS

CATCH BASINS SHOULD BE INSPECTED AFTER MAJOR STORMS AND SHOULD BE CLEANED AS OFTEN AS NEEDED. VARIOUS TECHNIQUES AND EQUIPMENT ARE AVAILABLE FOR MAINTENANCE OF CATCH BASINS. FILTER BAGS CAN BE USED IN CATCH BASINS AT STREET GRADE TO REDUCE THE FREQUENCY OF CLEANING CATCH BASINS AND OUTFALL PIPES.

C. DRY BOTTOM RETENTION SYSTEM

THE RETENTION AREA MUST BECOME DRY WITHIN 72 HOURS AFTER A RAINFALL EVENT. IF THE RETENTION AREA IS REGULARLY WET, IT IS OUT OF COMPLIANCE WITH THE PERMITTED DESIGN, AND THE POND BOTTOM MUST BE SCARIFIED, OR THE BOTTOM FOOT OR SO REPLACED WITH CLEAN SANDS, TO ENSURE THAT THE PERMITTED PERCOLATION RATE IS MAINTAINED.

F. METHODS AND EQUIPMENT FOR SYSTEM MAINTENANCE

VARIOUS TYPES OF EQUIPMENT ARE COMMERCIALY AVAILABLE FOR MAINTENANCE OF STORMWATER MANAGEMENT SYSTEMS. THE MOST FREQUENTLY USED EQUIPMENT AND TECHNIQUES ARE LISTED BELOW:

1. VACUUM PUMP

THIS DEVICE IS NORMALLY USED TO REMOVE SEDIMENT FROM SUMPS AND PIPES. THE EQUIPMENT FOR THIS SYSTEM IS GENERALLY MOUNTED ON A VEHICLE. IT REQUIRES A 200 TO 300 GALLON (0.757 TO 1.136 M³) HOLDING TANK AND A VACUUM PUMP THAT HAS A 10-INCH (254 MM) DIAMETER FLEXIBLE HOSE WITH A SERRATED METAL END FOR BREAKING UP CAKE SEDIMENT. A TWO-MAN CREW CAN CLEAN A CATCH BASIN IN 5 TO 10 MINUTES. THIS SYSTEM CAN REMOVE STONES, BRICKS, LEAVES, LITTER, AND SEDIMENT DEPOSITS. NORMAL WORKING DEPTH IS 0 TO 20 FEET (0 TO 6 M).

2. WATER JET SPRAY

THIS EQUIPMENT IS GENERALLY MOUNTED ON A VEHICLE EQUIPPED WITH A HIGH PRESSURE PUMP AND A 200 TO 300 GALLON (0.76 TO 1.14 M³) WATER SUPPLY. A 3-INCH (76 MM) FLEXIBLE HOSE LINE WITH A METAL NOZZLE DIRECTS JETS OF WATER TO LOOSEN DEBRIS IN PIPES OR TRENCHES. NORMAL LENGTH OF HOSE IS APPROXIMATELY 200 FEET (61 M). THIS SYSTEM SHOULD NOT BE USED TO CLEAN ERODIBLE TRENCH WALLS.

3. FIRE HOSE FLUSHING

THIS EQUIPMENT CONSISTS OF VARIOUS FITTINGS THAT CAN BE PLACED ON THE END OF A FIRE HOSE SUCH AS ROTATING NOZZLES, ROTATING CUTTER, ETC. WHEN THIS EQUIPMENT IS DRAGGED THROUGH A PIPE, IT CAN BE EFFECTIVE IN REMOVING LIGHT MATERIAL FROM WALLS.

4. SEWER JET FLUSHER

SEWER JET FLUSHERS ARE USUALLY TRUCK-MOUNTED AND CONSISTS OF A LARGE WATER TANK OF AT LEAST 1000 GALLONS (3.785 M³), A TRIPLE ACTION WATER PUMP CAPABLE OF PRODUCING 1000 PSI (6900 KPA) OR MORE PRESSURE, A GASOLINE MOTOR TO RUN THE PUMP, A HOSE REEL LARGE ENOUGH FOR 500 FEET (153 M) OF 1-INCH (25 MM) INSIDE DIAMETER HIGH PRESSURE HOSE, AND A HYDRAULIC PUMP TO OPERATE THE HOSE REEL. IN ORDER TO CLEAN PIPES PROPERLY, A MINIMUM NOZZLE PRESSURE OF 600 PSI (4140 KNM²) IS REQUIRED. ALL MATERIAL IS FLUSHED AHEAD OF THE NOZZLE BY SPRAY ACTION. THIS EXTREMELY MOBILE MACHINE CAN BE USED FOR CLEANING AREAS WITH LIGHT GREASE PROBLEMS, SAND AND GRAVEL INFILTRATION, AND FOR GENERAL CLEANING.

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REV	DATE	COMMENT	BY
21	09/13/23	CHANGE BULLETIN #13	CTD
22	10/12/23	CHANGE BULLETIN #14 (REVISED)	CTD
13	08/16/22	REV CONTROL STR PER ERP COMMENTS	CTB
14	09/14/22	CHANGE BULLETIN #4	CTD
15	10/18/22	CHANGE BULLETIN #5	CTD
16	11/30/22	CHANGE BULLETIN #6 (REVISED)	CTD
17	12/15/22	REV PER CITY COMM. DATED 12/14/22	CTD
18	12/27/22	REV PER RFI #39 - #41	CTD
19	01/25/23	CHANGE BULLETIN #7	CTD
20	06/29/23	CHANGE BULLETIN #11	CTD

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CB #14 (REVISED)
10/12/2023

PROJECT No.: FT200034
DRAWN BY: AAM
CHECKED BY: EMM
DATE: 03/17/2021
SCALE: AS NOTED
CAD I.D.: FT200034 - PGD PLAN

PROJECT:
ROOMS TO GO
S.W. COLLEGE ROAD
S.E. 27th AVE
FOR
PERIMETER DEVELOPMENT, LLC

2800 & 2832 COLLEGE ROAD
CITY OF OCALA
MARION COUNTY, FLORIDA

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STATE OF FLORIDA
PROFESSIONAL ENGINEER
CRAIG T. BOISSEAU, P.E.
October 12, 2023
FLORIDA LICENSE No. 67551
FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
PAVING, GRADING & DRAINAGE PLAN

SHEET NUMBER:

C-6
OF