# TIMMS SUBDIVISION UNIT 8 PAVING, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS LAND-PLAT-22-11800364 SAN ANTONIO, TEXAS 78073 BEXAR COUNTY

BENCHMARK INFORMATION:

CP-1: CP SET 5/8-INCH REBAR IN CONC W/ ALUM CAP STAMPED "LJAS CP 1" N: 13,655,133.81'

E: 2,094,422.09' ELEVATION = 623.13

CP-2: CP SET 5/8-INCH REBAR IN CONC W/ ALUM CAP STAMPED "LJAS CP 2" N: 13,655,506.71' E: 2,094,043.20'

ELEVATION = 624.74'

THIS INFORMATION PROVIDED BY: LJA LAND SURVEY

REVISIONS			
NO.	DESCRIPTION	BY	DATE

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.



LOCATION MAP (N.T.S.) SUBMITTAL DATE: JUNE 2024

PROPERTY DESCRIPTION EING 28.89 ACRES OUT OF CALLED 79.238 ACRE TRACT OF LAND, AS CONVEYED TO CHARLES A. TIMMS AND ECORDED IN VOLUME 18638, PAGE 728, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS, AND

BEING 28.89 ACRES OUT OF CALLED 79.238 ACRE TRACT OF LAND, AS CONVEYED TO CHARLES A. TIMMS AND RECORDED IN VOLUME 18638, PAGE 728, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS, AND SITUATED IN THE FRANCISCO A. RUIZ SURVEY NO. 47, ABSTRACT NO. 614, COUNTY BLOCK 4300, IN THE CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS.

DEVELOPER:	CENTURY LAND HOLDINGS II, LLC 3619 PAESANOS PARKWAY SHAVANO PARK, TX 78231 CONTACT: RUDY MUÑOZ TELEPHONE: (210) 797-7205
ENGINEER:	LJA ENGINEERING, INC. 9830 COLONNADE BLVD, SUITE 300 SAN ANTONIO, TEXAS 78230 CONTACT PERSON: TORRY HURT, P.E. PHONE # (210) 503-2700 FAX # (210) 503-2749
SURVEYOR:	LJA SURVEYING 9830 COLONNADE BLVD, SUITE 300 SAN ANTONIO, TX 78230 CONTACT PERSON: GORDON ANDERSON PHONE # (210) 503-2700
CONTOUR DATA:	FIELD SURVEY BY LJA SURVEYING





LJA JOB NO. SA199-0404B-426

	AGAVE SUBDIVISION UNIT 6
SHEET NUMBER	SHEET DESCRIPTION
1	COVER
2	GENERAL NOTES
3	UTILITY LAYOUT (SHEET 1 OF 3)
4	UTILITY LAYOUT (SHEET 2 OF 3)
5	UTILITY LAYOUT (SHEET 3 OF 3)
6	CPS ENERGY DETAILS
7	WATER COVER
8	WATER LAYOUT (SHEET 1 OF 2)
9	WATER LAYOUT (SHEET 2 OF 2)
10	WASTEWATER COVER
11	WASTEWATER LAYOUT (SHEET 1 OF 3)
12	WASTEWATER LAYOUT (SHEET 2 OF 3)
13	WASTEWATER LAYOUT (SHEET 3 OF 3)
14	WASTEWATER LINE 'A' PLAN & PROFILE STA. 1+00.00 TO 11+00.00
15	WASTEWATER LINE 'A' PLAN & PROFILE STA. 11+00.00 TO 22+00.00
16	WASTEWATER LINE 'A' PLAN & PROFILE STA. 22+00.00 TO END
17	WASTEWATER LINE 'B' PLAN & PROFILE STA. 1+00.00 TO 7+00.00
18	WASTEWATER LINE 'B' PLAN & PROFILE STA. 7+00.00 TO END
19	WASTEWATER LINE 'C' PLAN & PROFILE STA 1+00.00 TO 9+00.00
20	WASTEWATER LINE 'C' PLAN & PROFILE 9+00.00 TO END
21	WASTEWATER LINE 'D, E, & F' PLAN & PROFILE STA. 1+00.00 TO END
22	EXISTING DRAINGE AREA MAP
23	PROPOSED DRAINAGE AREA MAP
24	ULTIMATE DRAINAGE AREA MAP (SHEET 1 OF 2)
25	ULTIMATE DRAINAGE AREA MAP (SHEET 2 OF 2)
26	GRADING PLAN (SHEET 1 OF 2)
27	GRADING PLAN (SHEET 2 OF 2)
28	DRAIN 'A' PLAN & PROFILE STA. 1+00.00 TO END
29	DRAIN 'B' PLAN & PROFILE STA. 1+00.00 TO END
30	EXISTING CHANNEL IMPROVEMENTS PLAN & PROFILE STA. 1+00.00 TO EN
31	DRAINAGE DETAILS (SHEET 1 OF 2)
32	DRAINAGE DETAILS (SHEET 2 OF 2)
33	TIMMS PKWY PLAN & PROFILE STA. 1+00.00 TO STA. 12+00.00
34	TIMMS PKWY PLAN & PROFILE STA. 12+00.00 TO END
35	LAMAR PASS PLAN & PROFILE STA. 1+00.00 TO END
36	RED PLAINS DR PLAN & PROFILE STA. 1+00.00 TO STA. 9+00.00
37	RED PLAINS DR PLAN & PROFILE STA.9+00.00 TO END
38	TALL GRASS LN PLAN & PROFILE STA. 1+00.00 TO END
39	BROWN SEED DR PLAN & PROFILE
40	SIGNAGE (SHEET 1 OF 2)
41	SIGNAGE (SHEET 2 OF 2)
42	
43	
44	
45	STORM WATER PULLUTION PREVENTION PLAN 2

LJA Engineering, Inc.

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Phone 210.503.2700 LJA.COM FRN-F-1386

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION JUNE 2008, OR LATEST.
- 2. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS, BUT NOT INCLUDED IN THE BID PROPOSAL. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PAY ITEM TO WHICH IT RELATES.
- 3. THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE DELIVERY OF MAIL BY THE U.S. POSTAL SERVICE.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING FENCES, CONCRETE ISLANDS, STREET PAVING CURBS, SHRUBS, BUSHES, EXISTING WOODEN FENCES, ORNAMENTAL STONE PLANTERS, OR DRIVEWAYS. (NO SEPARATE PAY ITEM).
- 5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SIGNS AND BARRICADES ARE PROPERLY INSTALLED AND MAINTAINED. ALL LOCATIONS AND DISTANCES WILL BE DECIDED UPON IN THE FIELD BY THE CONTRACTOR, USING THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE CITY'S CONSTRUCTION INSPECTOR AND TRAFFIC ENGINEERING REPRESENTATIVE WILL ONLY BE RESPONSIBLE TO INSPECT BARRICADES AND SIGNS. IF, IN THE OPINION OF THE TRAFFIC ENGINEERING REPRESENTATIVE AND THE CONSTRUCTION INSPECTOR, THE BARRICADES AND SIGNS DO NOT CONFORM TO ESTABLISHED STANDARDS OR ARE INCORRECTLY PLACED OR ARE INSUFFICIENT IN QUANTITY TO PROTECT THE GENERAL PUBLIC. THE CONSTRUCTION INSPECTOR SHALL HAVE THE OPTION TO STOP OPERATIONS UNTIL SUCH TIME AS THE CONDITIONS ARE CORRECTED.
- 6. IF THE NEED ARISES, ADDITIONAL BARRICADES AND DIRECTIONAL DEVICES MAY BE ORDERED BY THE TRAFFIC ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- 7. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.171 C.P.S. MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES, THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES. THAT ARE IN THE PROJECT AREA.
- 8. CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES, MARKS, ETC. IF ANY ARE DESTROYED OR REMOVED BY THE CONTRACTOR OR HIS EMPLOYEES, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 9. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO EXCAVATION OPERATION:
  - SAN ANTONIO WATER SYSTEM (SAWS) 233-2010 COSA DRAINAGE 207-8048 COSA SIGNAL OPERATIONS 207-7720 / 207-7765 TEXAS STATE WIDE ONE CALL LOCATOR 1-800-344-8377 -CITY PUBLIC SERVICE ENERGY -SPECTRUM (TIME WARNER) -AT&T -MCI
- 10. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM AVAILABLE RECORDS AND ARE NOT GUARANTEED BUT SHALL BE INVESTIGATED AND VERIFIED BY THE CONTRACTOR BEFORE STARTING WORK. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR THE MAINTENANCE AND PROTECTION OF THE EXISTING UTILITIES EVEN IF THEY ARE NOT SHOWN ON THE PLANS. LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND HE SHALL BE RESPONSIBLE FOR PROTECTION OF SAME DURING CONSTRUCTION.
- 11. ALL WASTE MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE HIS SOLE RESPONSIBILITY TO DISPOSE OF THIS MATERIAL OFF THE LIMITS OF THE PROJECT. NO WASTE MATERIAL SHALL BE PLACED IN EXISTING LOWS THAT WILL BLOCK OR ALTER FLOW LIMITS OF EXISTING ARTIFICIAL OR NATURAL DRAINAGE
- 12. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
- 13. THE CONTRACTOR SHALL MAINTAIN ALL ADJOINING STREETS AND TRAVELED ROUTES FREE FROM SPILLED AND / OR TRACKED CONSTRUCTION MATERIALS AND / OR DEBRIS.
- 14. IF THE CONTRACTOR ENCOUNTERS ANY ARCHAEOLOGICAL DEPOSITS DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR MUST STOP EXCAVATION IMMEDIATELY, CONTACT THE CITY INSPECTOR, AND CALL THE CITY HISTORIC PRESERVATION OFFICE AT 207-7306 OR 207-3327 FOR AN ARCHAEOLOGICAL INVESTIGATION THE CONTRACTOR CANNOT BEGIN EXCAVATION AGAIN WITHOUT WRITTEN PERMISSION FROM THE CITY IF MORE THAN THREE (3) DAYS ARE REQUIRED FOR INVESTIGATION (NOT INCLUDING HOLIDAY AND WEEKENDS) AND IF THE CONTRACTOR UNABLE TO WORK IN OTHER AREAS, THEN THE CONTRACTOR WILL BE ALLOWED TO NEGOTIATE FOR ADDITIONAL CONSTRUCTION TIME UPON WRITTEN REQUEST WITHIN TEN (10) DAYS AFTER THE FIRST NOTICE TO THE CITY OF ARCHAEOLOGICAL INVESTIGATION FOR EACH EVENT. IF THE TIME REQUIRED FOR INVESTIGATION IS LESS THAN OR EQUAL TO THREE (3) DAYS FOR EACH EVENT, CONTRACT DURATION WILL NOT BE EXTENDED.
- 15 IF SUSPECTED CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION OPERATIONS C.O.S.A SHALL BE NOTIFIED IMMEDIATELY WHEN CONTAMINATED SOILS AND / OR GROUNDWATER ARE ENCOUNTERED AT LOCATIONS NOT IDENTIFIED IN THE PLANS. THE NOTIFICATION SHOULD INCLUDE THE STATION NUMBER, TYPE OF CONTAMINATED MEDIA, EVIDENCE OF CONTAMINATION AND MEASURES TAKEN TO CONTAIN THE CONTAMINATED MEDIA AND PREVENT PUBLIC ACCESS THE CONTAMINATED SOIL AND / OR GROUNDWATER SHALL NOT BE REMOVED FROM THE LOCATION WITHOUT PRIOR C.O.S.A APPROVAL. THE CONTRACTOR MUST STOP THE EXCAVATION IMMEDIATELY AND CONTACT THE C.O.S.A INSPECTOR. THE CONTRACTOR CANNOT BEGIN EXCAVATION ACTIVITIES WITHOUT WRITTEN PERMISSION FROM THE CITY.
- 16. CONTRACTOR IS TO INCLUDE A MAILBOX POST BLOCKOUT FOR VACANT LOTS AND ALL RESIDENCES WHICH DO NOT HAVE MAILBOXES AT THE CURB. BLOCKOUTS ARE PROVIDED FOR FUTURE USE BY THE POST OFFICE
- 17. CONTRACTOR SHALL NOT REMOVE OR ADJUST ANY VIA FACILITIES. THE CONTRACTOR MUST CONTACT VIA FOURTEEN DAYS PRIOR, FOR THE REMOVAL OF BENCHES, STOP POLES OR ANY OTHER VIA FACILITIES THAT MAY BE PRESENT. PLEASE PROVIDE THIRTY DAYS PRIOR NOTICE FOR SHELTER REMOVAL (TELEPHONE NOS: (210) 362-2155 OR (210) 362-2096). THE CONTRACTOR WILL BE LIABLE FOR ANY DAMAGES TO VIA FACILITIES NOT REMOVED BY VIA. THE CONTRACTOR IS REQUIRED TO REPLACE ALL FLATWORK REMOVED OR DAMAGED IN THE COURSE OF EXECUTING THE CONTRACT UNLESS OTHERWISE NOTED BY VIA. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING VIA FACILITIES IF ADJACENT TO WORK AREA.

### TREE PROTECTION AND PRESERVATION GENERAL NOTES

- 1. NO UTILITY OR STREET EXCAVATION WORK SHALL BEGIN IN AREAS WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
- 2. TREE PROTECTION FENCING SHALL BE REQUIRED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING SITE CONSTRUCTION. DURING CONSTRUCTION ACTIVITY, AT LEAST A SIX-INCH LAYER OF COARSE MULCH SHALL BE PLACED AND MAINTAINED OVER THE ROOT PROTECTION ZONE (NO SEPARATE PAY ITEM).
- 3. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN THE VICINITY OF TREES SHALL PROCEED WITH CAUTION. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR GUIDANCE.
- 4. ROOTS WILL BE CUT WITH A ROCK SAW OR BY HAND, NOT BY AN EXCAVATOR OR OTHER ROAD CONSTRUCTION EQUIPMENT.
- 5. ALL CURB AND SIDEWALK WORK SHALL USE ALTERNATIVE CONSTRUCTION METHODS TO MINIMIZE EXTENSIVE ROOT DAMAGE TO TREES (REFER TO DETAILS).
- 6. EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH, OR WET BURLAP.
- 7. NO EQUIPMENT, VEHICLES OR MATERIALS SHALL OPERATE OR BE STORED WITHIN THE ROOT PROTECTION ZONE OF ANY TREE NEAR THE PROJECT. ROOT PROTECTION ZONE IS 1 FOOT OF RADIUS PER INCH OF TREE'S DIAMETER. A 10-INCH DIAMETER TREE WOULD HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE AROUND THE TREE. ROOTS OR BRANCHES IN CONFLICT WITH THE CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. OAK WOUNDS SHALL BE PAINTED OVER WITHIN 30 MINUTES TO PREVENT OAK
- 8. SAPLINGS, SHRUBS OR BUSHES TO BE CLEARED FROM THE PROTECTED ROOT ZONE AREA OF A LARGE TREE SHALL BE REMOVED BY HAND AS DESIGNATED BY THE INSPECTOR. 9. NO WIRES, NAILS OR OTHER MATERIAL MAY BE ATTACHED TO PROTECTED TREES. 10. TREES, TREE LIMBS, BUSHES AND SHRUBS LOCATED IN THE CITY STREET OR ALLEY RIGHT-OF-WAY OR
- PERMANENT EASEMENTS WHICH INTERFERE WITH PROPOSED CONSTRUCTION ACTIVITIES SHALL BE PROPERLY PRUNED FOLLOWING THE ANSI A-300 STANDARDS FOR PRUNING. ALL TREE PRUNING SHALL BE COMPLETED BY
- 11. NO EXCESSIVE TREE TRIMMING WILL BE PERMITTED.
- 12. ALL DEBRIS GENERATED BY THE PRUNING AND TRIMMING OF THE TREES AND / OR BUSHES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY (NO SEPARATE PAY ITEM).
- 13. TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE, BUT NOT LIMITED TO: WATERING THE ROOT PROTECTION ZONE, WASHING FOLIAGE, FERTILIZATION, PRUNING, ADDITIONAL MULCH APPLICATIONS AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT.
- 14. ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST. (210) 207-0278 15. TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.
- 16. TREE PLANTING FOR MITIGATION OR ENHANCEMENT: ALL PLANTED TREES SHALL BE MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. THIS INCLUDES IRRIGATION, FERTILIZING, PRUNING AND OTHER MAINTENANCE AS NEEDED ON THE PROJECT. TREES THAT DIE WITHIN TWELVE (12) MONTHS SHALL BE REPLACED WITH A TREE OF EQUAL SIZE AND SPECIES.

## ACCESSIBILITY REQUIREMENTS

- 1. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN VEHICULAR AND PEDESTRIAN ACCESS AT ALL TIMES TO LOCAL RESIDENCES AND BUSINESSES.
- 2. WHEN THE WORK REQUIRES THE EXCAVATION OF THE STREET AND THE REMOVAL OF THE EXISTING DRIVEWAY APPROACHES AND SIDEWALKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY ALL-WEATHER ACCESS TO THE BUSINESSES AND RESIDENCES. THE TEMPORARY DRIVEWAY APPROACHES SHALL BE CONSTRUCTED WITH FLEXIBLE BASE OR GRAVEL MATERIAL AT NO SEPARATE COST TO THE CITY. 3. PRIOR TO INITIATING THE CONSTRUCTION OF NEW DRIVEWAY APPROACHES, THE CONTRACTOR SHALL GIVE
- ADVANCE WARNING IN PERSON, OR IN WRITING, OF AT LEAST 48 HOURS TO EACH RESIDENCE THAT WILL BE MMFDIATELY AFFECTED. SO THAT ALTERNATE PLANS MAY BE MADE BY THE RESIDEN
- 4. FOR BUSINESSES WITH MORE THAN ONE DRIVEWAY, AT LEAST ONE DRIVEWAY SHALL REMAIN OPEN WHILE THE OTHER NEW DRIVEWAY APPROACHES ARE CONSTRUCTED. FOR BUSINESSES WITH ONLY ONE DRIVEWAY, THE NEW DRIVEWAY APPROACH SHALL BE CONSTRUCTED IN HALF WIDTHS, UNLESS A TEMPORARY ASPHALT DRIVEWAY IS FIRST INSTALLED AT NO SEPARATE COST TO THE CITY.

A CITY OF SAN ANTONIO TREE MAINTENANCE LICENSED CONTRACTOR (ARTICLE 21-171, CITY CODE) ONLY AFTER APPROVAL FROM THE CAPITAL PROJECTS MANAGEMENT THROUGH THE INSPECTOR.

#### **REVISED JULY 2017**

## SAWS CONSTRUCTION NOTES COUNTER PERMIT AND GENERAL **CONSTRUCTION PERMIT**

#### GENERAL SECTION

- 1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL BE APPROVED BY THE SAN ANTONIO WATER SYSTEM (SAWS) AND COMPLY WITH THE PLANS, SPECIFICATIONS, GENERAL CONDITIONS AND WITH THE FOLLOWING AS APPLICABLE:
- A. CURRENT TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEM", TEXAS ADMINISTRATIVE CODE (TAC) TITLE 30 PART 1 CHAPTER 217 AND "PUBLIC DRINKING WATER", TAC TITLE 30 PART 1 CHAPTER 290.
- B. CURRENT TXDOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND DRAINAGE". C. CURRENT "SAN ANTONIO WATER SYSTEM STANDARD SPECIFICATIONS
- FOR WATER AND SANITARY SEWER CONSTRUCTION". D. CURRENT CITY OF SAN ANTONIO "STANDARD SPECIFICATIONS FOR
- PUBLIC WORKS CONSTRUCTION". E. CURRENT CITY OF SAN ANTONIO "UTILITY EXCAVATION CRITERIA MANUAL" (UECM).
- 2. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PIPE INSTALLATION WORK UNTIL THEY OBTAIN A COPY OF THE APPROVED COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP) FROM THE CONSULTANT AND HAS BEEN NOTIFIED BY SAWS CONSTRUCTION INSPECTION DIVISION TO PROCEED WITH THE WORK AND HAS ARRANGED A MEETING WITH THE INSPECTOR AND CONSULTANT FOR THE WORK REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR WITHOUT AN APPROVED COUNTER PERMIT AND/OR A GCP WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSE OF THE CONTRACTORS AND/OR THE DEVELOPER.
- 3. THE CONTRACTOR SHALL OBTAIN THE SAWS STANDARD DETAILS FROM THE SAWS WEBSITE. HTTP://WWW.SAWS.ORG/BUSINESS\_CENTER/SPECS. UNLESS OTHERWISE NOTED WITHIN THE DESIGN PLANS.
- 4 THE CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973, ON NOTIFICATION PROCEDURES THAT WILL BE USED TO NOTIFY AFFECTED HOME RESIDENTS AND/OR PROPERTY OWNERS 48 HOURS PRIOR TO BEGINNING ANY WORK.
- 5. LOCATION AND DEPTH OF EXISTING UTILITIES AND SERVICE LATERALS SHOWN ON THE PLANS ARE UNDERSTOOD TO BE APPROXIMATE. ACTUAL LOCATIONS AND DEPTHS MUST BE FIELD VERIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION AND TO PROTECT THEM DURING CONSTRUCTION AT NO COST TO SAWS.
- 6. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES AT LEAST 1-2 WEEKS PRIOR TO CONSTRUCTION WHETHER SHOWN ON PLANS OR NOT. PLEASE ALLOW UP TO 7 BUSINESS DAYS FOR LOCATES REQUESTING PIPE LOCATION MARKERS ON SAWS FACILITIES. THE FOLLOWING CONTACT INFORMATION ARE SUPPLIED FOR VERIFICATION PURPOSES:
- SAWS UTILITY LOCATES: HTTP://WWW.SAWS.ORG/SERVICE/LOCATES COSA DRAINAGE (210) 207-0724 OR (210) 207-6026
- COSA TRAFFIC SIGNAL OPERATIONS (210) 206-8480 COSA TRAFFIC SIGNAL DAMAGES (210) 207-3951
- TEXAS STATE WIDE ONE CALL LOCATOR 1-800-545-6005 OR 811
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, SIDEWALKS, LANDSCAPING AND STRUCTURES TO ITS ORIGINAL OR BETTER CONDITION IF DAMAGES ARE 9. FINAL CONNECTION TO THE EXISTING WATER MAIN SHALL NOT BE MADE MADE AS A RESULT OF THE PROJECT'S CONSTRUCTION.
- 8. ALL WORK IN TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) AND/OR BEXAR COUNTY RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH SEWER NOTES RESPECTIVE CONSTRUCTION SPECIFICATIONS AND PERMIT REQUIREMENTS.
- 9. THE CONTRACTOR SHALL COMPLY WITH CITY OF SAN ANTONIO OR OTHER GOVERNING MUNICIPALITY'S TREE ORDINANCES WHEN EXCAVATING NEAR CONTROL SHALL BE TRAINED ON PROPER RESPONSE. SHOULD AN SSO TRFFS
- 10 THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PI AIN PERMIT
- 11. HOLIDAY WORK: CONTRACTORS WILL NOT BE ALLOWED TO PERFORM SAWS WORK ON SAWS RECOGNIZED HOLIDAYS. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

WEEKEND WORK: CONTRACTORS ARE REQUIRED TO NOTIFY THE SAWS INSPECTION CONSTRUCTION DEPARTMENT 48 HOURS IN ADVANCE TO REQUEST WEEKEND WORK. REQUEST SHOULD BE SENT TO CONSTWORKREQ@SAWS.ORG.

ANY AND ALL SAWS UTILITY WORK INSTALLED WITHOUT HOLIDAY/WEEKEND APPROVAL WILL BE SUBJECT TO BE UNCOVERED FOR PROPER INSPECTION.

- 12. COMPACTION NOTE (ITEM 804): THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE COMPACTION REQUIREMENTS ON ALL TRENCH BACKFILL AND FOR PAYING FOR THE TESTS PERFORMED BY A THIRD PARTY COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED, OR AS INDICATED BY THE SAWS INSPECTOR AND/OR THE TEST ADMINISTRATOR, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
- 13. A COPY OF ALL TESTING REPORTS SHALL BE FORWARDED TO SAWS CONSTRUCTION INSPECTION DIVISION.

#### WATER SECTION

- 1. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIE-INS; THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.
- FOR WATER MAINS 12" OR HIGHER: SAWS EMERGENCY OPERATIONS CENTER (210) 233-2014
- 2. ASBESTOS CEMENT (AC) PIPE, ALSO KNOWN AS TRANSITE PIPE WHICH IS KNOWN TO CONTAIN ASBESTOS-CONTAINING MATERIAL (ACM), MAY BE LOCATED WITHIN THE PROJECT LIMITS. SPECIAL WASTE MANAGEMENT PROCEDURES AND HEALTH AND SAFETY REQUIREMENTS WILL BE APPLICABLE WHEN REMOVAL AND/OR DISTURBANCE OF THIS PIPE OCCURS. SUCH WORK IS TO BE MADE UNDER SPECIAL SPECIFICATION ITEM NO. 3000, "SPECIAL SPECIFICATION FOR HANDLING ASBESTOS CEMENT PIPE"
- 3. VALVE REMOVAL: WHERE THE CONTRACTOR IS TO ABANDON A WATER MAIN THE CONTROL VALVE LOCATED ON THE ABANDONING BRANCH WILL BE REMOVED AND REPLACED WITH A CAP/PLUG. (NSPI)
- 4. SUITABLE ANCHORAGE/THRUST BLOCKING OR JOINT RESTRAINT SHALL BE PROVIDED AT ALL OF THE FOLLOWING MAIN LOCATIONS: DEAD ENDS. PLUGS, CAPS, TEES, CROSSES, VALVES, AND BENDS, IN ACCORDANCE WITH THE STANDARD DRAWINGS DD-839 SERIES AND ITEM NO. 839, IN THE 8. ALL PVC PIPE OVER 14 FEET OF COVER SHALL BE EXTRA STRENGTH WITH SAWS STANDARD SPECIFICATIONS FOR CONSTRUCTION. 5. ALL VALVES SHALL READ "OPEN RIGHT".
- 6. PRVS REQUIRED: CONTRACTOR TO VERIFY THAT NO PORTION OF THE TRACT IS BELOW GROUND ELEVATION OF 565 FEET WHERE THE STATIC PRESSURE WILL NORMALLY EXCEED 80 PSI. AT ALL SUCH LOCATIONS WHERE THE GROUND LEVEL IS BELOW 565 FEET, THE DEVELOPER OR BUILDER SHALL INSTALL AT EACH LOT. ON THE CUSTOMER'S SIDE OF THE METER, AN APPROVED TYPE PRESSURE REGULATOR IN CONFORMANCE WITH THE PLUMBING CODE OF THE CITY OF SAN ANTONIO. NO DUAL SERVICES ALLOWED FOR ANY LOT(S) IF \*PRV IS/ARE REQUIRED FOR SUCH LOT(S), ONLY SINGLE SERVICE CONNECTIONS SHALL BE ALLOWED. \*NOTE: A PRESSURE REGULATOR IS ALSO KNOWN AS A PRESSURE REDUCING VALVE (PRV).
- 7. PIPE DISINFECTION WITH DRY HTH FOR PROJECTS LESS THAN 800 LINEAR FEET. (ITEM NO. 847.3): MAINS SHALL BE DISINFECTED WITH DRY HTH WHERE SHOWN IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE INSPECTOR, AND SHALL NOT EXCEED A TOTAL LENGTH OF 800 FEET. THIS METHOD OF DISINFECTION WILL ALSO BE FOLLOWED FOR MAIN REPAIRS. THE CONTRACTOR SHALL UTILIZE ALL APPROPRIATE SAFETY MEASURE TO PROTECT HIS PERSONNEL DURING DISINFECTION OPERATIONS.
- 8. BACKFLOW PREVENTION DEVICES:
- ALL IRRIGATION SERVICES WITHIN RESIDENTIAL AREAS ARE
- REQUIRED TO HAVE BACKFLOW PREVENTION DEVICES. ALL COMMERCIAL BACKFLOW PREVENTION DEVICES MUST BE
- APPROVED BY SAWS PRIOR TO INSTALLATION.

UNTIL THE WATER MAIN HAS BEEN PRESSURE TESTED, CHLORINATED AND SAWS HAS RELEASED THE MAIN FOR TIE-IN AND USE.

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT NO SANITARY SEWER OVERFLOW (SSO) OCCURS AS A RESULT OF THEIR WORK. ALL CONTRACTOR PERSONNEL RESPONSIBLE FOR SSO PREVENTION AND OCCUR. THE CONTRACTOR SHALL:

- A.IDENTIFY THE SOURCE OF THE SSO AND NOTIFY SAWS EMERGENCY OPERATIONS CENTER (EOC) IMMEDIATELY AT (210) 233-2014. PROVIDE THE ADDRESS OF THE SPILL AND AN ESTIMATED VOLUME OR FLOW.
- B ATTEMPT TO ELIMINATE THE SOURCE OF THE SSO C CONTAIN SEWAGE FROM THE SSO TO THE EXTENT OF PREVENTING A POSSIBLE CONTAMINATION OF WATERWAYS.
- D. CLEAN UP SPILL SITE (RETURN CONTAINED SEWAGE TO THE COLLECTION SYSTEM IF POSSIBLE) AND PROPERLY DISPOSE OF CONTAMINATED SOIL/MATERIALS.
- E. CLEAN THE AFFECTED SEWER MAINS AND REMOVE ANY DEBRIS. F. MEET ALL POST-SSO REQUIREMENTS AS PER THE EPA CONSENT DECREE, INCLUDING LINE CLEANING AND TELEVISING THE AFFECTED. SEWER MAINS (AT SAWS DIRECTION) WITHIN 24 HOURS.

SHOULD THE CONTRACTOR FAIL TO ADDRESS AN SSO IMMEDIATELY AND TO SAWS SATISFACTION, THEY WILL BE RESPONSIBLE FOR ALL COSTS INCURRED BY SAWS, INCLUDING ANY FINES FROM EPA, TCEQ AND/OR ANY

PUMPING"

7. MANHOLE AND ALL PIPE TESTING (INCLUDING THE TV INSPECTION) MUST BE PERFORMED AND PASSED PRIOR TO FINAL FIELD ACCEPTANCE BY SAWS CONSTRUCTION INSPECTION DIVISION, AS PER THE SAWS SPECIFICATIONS FOR WATER AND SANITARY SEWER CONSTRUCTION.

OTHER FEDERAL, STATE OR LOCAL AGENCIES.

NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR THIS WORK. ALL WORK SHALL BE DONE ACCORDING TO GUIDELINES SET BY THE TCEQ AND SAWS.

2. IF BYPASS PUMPING IS REQUIRED, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH SAWS STANDARD SPECIFICATION FOR WATER AND SANITARY SEWER CONSTRUCTION, ITEM NO. 864, "BYPASS

3. PRIOR TO TIE-INS, ANY SHUTDOWNS OF EXISTING FORCE MAINS OF ANY SIZE MUST BE COORDINATED WITH THE SAWS CONSTRUCTION INSPECTION DIVISION AT (210) 233-2973 AT LEAST ONE WEEK IN ADVANCE OF THE SHUTDOWN. THE CONTRACTOR MUST ALSO PROVIDE A SEQUENCE OF WORK AS RELATED TO THE TIF-INS. THIS IS AT NO ADDITIONAL COST TO SAWS OR THE PROJECT AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEQUENCE THE WORK ACCORDINGLY.

4. SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241, TAC 217.53 AND TCEQ 290.44(E)(4)(B). CONTRACTOR SHALL CENTER A 20' JOINT OF 160 PSI PRESSURE RATED PVC AT THE PROPOSED WATER CROSSING.

5. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ALLOWANCES AND ADJUSTMENTS FOR TOP OF MANHOLES TO MATCH THE FINISHED GRADE OF THE PROJECT'S IMPROVEMENTS. (NSPI)

6. SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER: ALL SPILLS, OVERFLOWS, OR DISCHARGES OF WASTEWATER, RECYCLED WATER. PETROLEUM PRODUCTS, OR CHEMICALS MUST BE REPORTED IMMEDIATELY TO THE SAWS INSPECTOR ASSIGNED TO THE COUNTER PERMIT OR GENERAL CONSTRUCTION PERMIT (GCP). THIS REQUIREMENT APPLIES TO EVERY SPILL, OVERFLOW, OR DISCHARGE REGARDLESS OF

MINIMUM PIPE STIFFNESS OF 115 PSI.

 $\infty$ 30 N  $\supset$ 00 Z 80  $\sim$ S DIVI T-22 Ш S TORRY LAYNE HURT JOB NUMBER: SA199-0404C-426 SHEET NO.

SHEETS



:: \SA199 Century Communities\0404C Timms Subdivision U8\426 Site Development Plans\DWG-Sheets\sh\_Utility Layou Jser: jduran .ast Modified: Jul. 10, 23 - 16:37





## **GENERAL NOTES**

- FIRE HYDRANT SHALL BE LOCATED BEHIND SIDEWALK IN ACCORDANCE WITH THE FIRE HYDRANT INSTALLATION DETAIL DD-834-01.
- 2. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION.
- 3. ALL VALVES SHALL READ "OPEN RIGHT".
- 4. ALL FIRE HYDRANTS SHALL BE PAINTED APPROPRIATE SAWS COLORS.
- 5. FIRE HYDRANTS AND VALVE BOXES TO BE RAISED TO THE PROPOSED TOP OF PAVEMENT OR GROUND ELEVATION.
- ALL WATER PIPE TO BE C-900, DR-18, CLASS 150 UNLESS OTHERWISE NOTED.
   CONTRACTOR SHALL VERIFY GRAVITY INVERTS PRIOR TO CONSTRUCTION AND NOTIFY CIVIL ENGINEER IN WRITING OF ANY DISCREPANCIES.
- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL UTILITY TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PREFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTER, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
- CONTRACTOR TO REFERENCE MOST CURRENT SAWS DETAILS & SPECIFICATIONS. FOR SEWER MANHOLES REFERENCE SAWS STANDARD SPECIFICATION ITEM NO, 852.
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.







![](_page_3_Figure_2.jpeg)

![](_page_3_Figure_3.jpeg)

JOB NUMBER:

SHEET NO.

of **45** 

SA199-0404C-426

SHEETS

# **GENERAL NOTES**

- 1. FIRE HYDRANT SHALL BE LOCATED BEHIND SIDEWALK IN ACCORDANCE WITH THE FIRE HYDRANT INSTALLATION DETAIL DD-834-01.
- 2. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION.
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- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING 98% COMPACTION ON ALL UTILITY TRENCH BACKFILL AND PAYING FOR THE TESTS TO BE PREFORMED BY A THIRD PARTY. COMPACTION TESTS WILL BE DONE AT ONE LOCATION POINT RANDOMLY SELECTED OR AS INDICATED BY THE SAWS INSPECTOR/TEST ADMINISTER, PER EACH 12-INCH LOOSE LIFT PER 400 LINEAR FEET AT A MINIMUM. THIS PROJECT WILL NOT BE ACCEPTED AND FINALIZED BY SAWS WITHOUT THIS REQUIREMENT BEING MET AND VERIFIED BY PROVIDING ALL NECESSARY DOCUMENTED TEST RESULTS.
- 9. CONTRACTOR TO REFERENCE MOST CURRENT SAWS DETAILS & SPECIFICATIONS. FOR SEWER MANHOLES REFERENCE SAWS STANDARD SPECIFICATION ITEM NO. 852.
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

![](_page_3_Figure_14.jpeg)

WATER SERVICE DETAILS

NTS

![](_page_4_Figure_0.jpeg)

![](_page_4_Figure_1.jpeg)

![](_page_4_Figure_5.jpeg)

3. ALL VALVES SHALL READ "OPEN RIGHT".

PAVEMENT OR GROUND ELEVATION.

ALL NECESSARY DOCUMENTED TEST RESULTS.

LEGEND

![](_page_4_Figure_6.jpeg)

![](_page_4_Figure_7.jpeg)

NTS

SHEET NO. WATER SERVICE DETAILS

JOB NUMBER:

of **45** 

SA199-0404C-426

SHEETS

![](_page_5_Figure_0.jpeg)

![](_page_5_Picture_2.jpeg)

![](_page_5_Figure_3.jpeg)

![](_page_5_Picture_4.jpeg)

![](_page_5_Figure_5.jpeg)

Revised December 2021

#### SAWS CONSTRUCTION NOTES **COUNTER PERMIT AND GENERAL CONSTRUCTION** PERMIT

GENERAL CONSTRUCTION

- 1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:
- A.Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter
- 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290. B. Current TXDOT "Standard Specifications for Construction of Highways, Streets
- and Drainage.
- C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction.'
- D. Current City of San Antonio "Standard Specifications for Construction." E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 2. The Contractor shall obtain SAWS Standard Details from SAWS website, 2. The Contractor shall obtain SAWS standard Details noted within design <u>https://apps.saws.org/business\_center/specs/constspecs/</u> unless otherwise noted within design <u>SEWER</u>
- Division at 210-233-3500 (during regular SAWS working hours) and provide notification procedures the Contractor will use to notify affected home residents and/or property owners two (2) weeks prior to excavation. Outside of regular SAWS working hours the SAWS EOC should be contacted at 210-704-7297.
- 4. If necessary, Contractor will coordinate use of SAWS premises at no additional cost to SAWS. Such efforts include, but are not limited to, obtaining security identification badges required for access to SAWS facilities.
- 5. Locations and depths of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.
- 6. The Contractor shall verify the exact location of underground utilities and drainage structures prior to construction whether shown on plans or not. As-builts for SAWS infrastructure can be obtained at website below. Contractor shall coordinate physical locates for SAWS infrastructure through the SAWS Inspector. Please allow up to 7 business days for locates requesting pipe location markers on SAWS infrastructure. The following contact information are supplied for verification purposes:
  - San Antonio Water System:
- Request as-builts: https://www.saws.org/service/locates-service/
- COSA Drainage 210-206-8433 COSA Traffic Signal Operations 210-207-7720
- Texas Statewide One Call Locator 1-800-545-6005 or 811
- 7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways sidewalks, landscaping, and structures to its original or better condition as a result of damages done by the project's construction
- 8. Contractor shall not make use of dumpsters or waste bins that are intended to serve residents and/or businesses.
- accordance with respective construction specifications and permit
- 10.The Contractor shall comply with City of San Antonio or other governing Municipality's tree ordinances when excavating near trees.
- 11.All work within the 100-year Floodplain shall be done in accordance with Floodplain Development Permit. 12. Any work completed without prior written authorization which is not included in these plans and
- specifications will not be compensated by the San Antonio Water System.
- 13. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays.
- Weekend Work: Contractors are required to submit request to the SAWS Inspection Construction department by 12:00pm on the Wednesday prior to the weekend being requested. Request should be sent to constworkreg@saws.org.
- Any and all SAWS utility work installed without weekend approval will be subject to be Add applicable TCEQ notes under headings below if applicable and remove all red text herein. uncovered for proper inspection at no cost to SAWS.
- accurate documentation of the existing conditions (NSPI).
- poles along the project corridor. Contractors should further be advised that if the distance from the PLAN outside face of a utility trench to the face of a utility pole is less than 5 feet, said utility pole is If applicable to the project in question, add General Notes required in TCEQ Form TCEQ-592 available subject to bracing, based on a determination made by utility pole owner. Costs incurred by at https://www.tceq.texas.gov/permitting/eapp/material.html contractor for bracing of these utility poles is subsidiary to that respective utility company's work. It is advisable for the contractor to review the construction documents and visit the construction TCEQ: EDWARDS AQUIFER PROTECTION - CONTRIBUTING ZONE PLAN site to determine potential impacts.
- 16. CONSTRUCTION SEQUENCING: It is the Contractor's sole responsibility to schedule sequencing for removal and installation of existing and proposed SAWS utilities in conjunction with general project construction. Sequence of construction activities shall be considered in order to minimize the extent and duration of disturbances.
- 17.Contractor shall comply with applicable regulations including, but not limited to, those overseen at <u>https://www.tceq.texas.gov/permitting/eapp/material.html</u> by the U.S. Occupational Safety and Health Administration (OSHA). OSHA information and related materials may be obtained at https://www.osha.gov/ or at the OSHA San Antonio Office located at Fountainhead Tower. Suite 605 8200 W. Interstate 10 San Antonio, TX 78230 which is also reachable by phone at (210) 472-5040.
- 18.TRENCH EXCAVATION SAFETY PROTECTION: Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation site(s) within the project work areas in order to implement Contractor's trench excavation safety protection systems, programs and/or procedures. The Contractor's implementation of the systems, programs and/or procedures shall provide for adequate trench excavation safety protection that omplies with, as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of

individuals working in and around trench excavation.

#### WATER

- 1. Prior to tie-ins, any shutdowns of existing mains of any size must be coordinated with the SAWS Inspection and/or SAWS Production groups at least two weeks or more in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly. SAWS Production Control Center 210-233-2016
- 2. Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestos-containing material (ACM), maybe located within the project limits. Special waste management procedures and health and safety requirements will be applicable when removal and/or disturbance of this pipe occurs, Payment for such work is to be made under Item No. 3000,

# REVISIONS

NO.	DESCRIPTION	BY	DATE

"Handling Asbestos Cement Pipe"

AC pipe removed on construction projects for tie-in(s) should be in length of 26 linear feet (LF) Lengths of 13 LF should be removed where AC pipe is being removed and crossing pipes, conduits, or boxes.

- 3. VALVE REMOVAL: Where the contractor is to abandon a water main, the control valve located on the abandoning branch will be removed and replaced with a cap/plug. (NSPI)
- 4. DIVISION VALVES: Division Valves shown on plans or not shown on plans but found in the field shall only be operated by SAWS Distribution and Collection staff and only with prior written approval of the SAWS Director of Production and Operations and proper coordination with all SAWS departments. Contractor shall provide written notification to the inspector a minimum of two weeks in advance to start the coordination process and will be informed by the Inspector when the division valve will be operated by the SAWS Distribution and Collection staff. The Division Valve can only be operated by SAWS Distribution and Collection staff member not the inspector or the contractor. Operation of a
- Division Valve without the express prior written approval of the SAWS Distribution and Collection staff will constitute a material breach of any written SAWS contract or permit in addition to subjecting the Contractor to liability for any and all fines, fees, or other damages, direct or consequential, that may arise from or be caused by the operation of the valve without prior written permission. Please be informed that the approval of the operation or opening or closing of a division valve can take several weeks for approval. Division Valves will also have a valve lid labeled Division Valve and a locking mechanism installed with a key. The lock and key mechanism will be paid for by the contractor but will be installed by SAWS Distribution and Collection staff.
- 3. The Contractor is to notify and make arrangements with the SAWS Construction Inspection 5. The Contractor is responsible for ensuring that no sanitary sewer overflow (SSO) occurs as a result of their work. All contractor personnel responsible for SSO prevention and control shall be trained on proper response. Should an SSO occur, the contractor shall:
  - A. Identify the source of the SSO and notify SAWS Emergency Operations Center (EOC) immediately at 210-704-SAWS (210-704-7297). Provide the address of the spill and an estimated volume or flow.
  - B. Attempt to eliminate the source of the SSO C. Contain sewage from the SSO to the extent of preventing a possible contamination of
  - waterways D. Clean up spill site (return contained sewage to the collection system if possible) and properly
  - dispose of contaminated soil/materials. E. Clean the affected sewer mains and remove any debris. F. Meet all post-SSO requirements as per the EPA Consent Decree, including line cleaning and
  - televising the affected sewer mains (at SAWS direction) within 24 hours. Should the Contractor fail to address an SSO immediately and to SAWS satisfaction, they will be

responsible for all costs incurred by SAWS, including any fines from EPA.

No separate measurement or payment shall be made for this work. All work shall be done according to guidelines set by the TCEO and SAWS.

- 6. The Contractor shall provide bypass pumping of sewage around each segment of pipe to be replaced, in accordance with SAWS Standard Specification Item No. 865, "Bypass Pumping Small Diameter Sanitary Sewer Mains" and Standard Specification Item No. 864, "Bypass Pumping Large Diameter Sanitary Sewer Mains" as applicable. Payment for such work will be made under the appropriate bid item associated with Sanitary Sewer Bypass Pumping in accordance with SAWS Standard Specifications 865 and 864.
- 7. Prior to tie-ins, any shutdowns of existing force mains of any size must be coordinated with the SAWS Construction Inspection Division at 210-233-3500 and/or SAWS Production groups at least two weeks or more in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins: this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly.
- 9. All work in Texas Department of Transportation and Bexar County right-of-way shall be done in 8. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: It shall be the responsibility of the Contractor to make allowances and adjustments for top of manholes to match the finished grade of the project's improvements (NSPI).
  - 9. MANHOLE REMOVAL: Where existing manholes are to be replaced by the contractor , the existing manholes shall be removed. (NSPI)
  - 10.SMART MANHOLE COVERS: The Contractor shall notify SAWS EOC at 210-704- SAWS (210-233-7297) and either America Espinoza at 210-233-2934 or Jose A. Martinez at 210-233-3071 a minimum of 72 hours, not counting weekends or SAWS holidays, before working on the pipe or manhole, in order to have SAWS remove the Smart Cover. Any damage done to the Smart Cover will be charged to the Contractor through a change order.
  - 11.FLOW METERS IN MANHOLES: The Contractor shall notify Bobby Johnson at 210- 233-3493 or Abel Borunda at 210-233-3704 a minimum of 72 hours, not counting weekends or SAWS holidays, before working on the pipe or manhole, in order to have SAWS remove the Flow Meter in the manhole. Any damage done to the Flow Meter will be charged to the Contractor through a

Remove any text below, including headings, which is not applicable to the project in question

- 14.PRE-CON SITE VIDEO: Before the start of any construction. The site must be video recorded by TCEQ: EDWARDS AQUIFER PROTECTION LIFT STATIONS AND FORCE MAINS the contractor with one copy submitted to SAWS Inspections. A pre-site video will provide If applicable to the project in question, add General Notes required in TCEQ Form TCEQ-591 available at https://www.tceq.texas.gov/permitting/eapp/material.html
- 15.POWER POLE BRACING: Contractors should be advised that there are existing overhead utility TCEQ: EDWARDS AQUIFER PROTECTION WATER POLLUTION ABATEMENT

  - If applicable to the project in question, add General Notes required in TCEO Form TCEO- 592A available at https://www.tceq.texas.gov/permitting/eapp/material.html

SYSTEM If applicable to the project in question, add General Notes required in TCEQ Form TCEQ-596 available

#### WATER: SAWS PRESSURE ZONE 2

DEVELOPER'S NAME: CENTURY	( LAND HOLDINGS II, LLC
DEVELOPER'S ADDRESS: 3619 PAES	SANOS PARKWAY, #304
CITY SHAVANO PARK	STATE TEXAS ZIP 78231
PHONE # (210) 405-0195	EMAIL: <u>RUDY.MUNOZ@CENTURYCOMMUNITIES.COM</u>
SAWS BLOCK MAP # <u>124530,124532</u>	_ TOTAL EDU'S TOTAL ACREAGE _28.89 AC
TOTAL LINEAR FOOTAGE OF PIPE:8	" - 4,842 LF PLAT NO. LAND-PLAT-22-11800364
NUMBER OF LOTS: <u>118</u>	SAWS JOB NO22-1148

LOCATION OF EXISTING
UNDERGROUND AND OVE
UTILITIES ARE APPROXIM
LOCATIONS ONLY. THE
CONTRACTOR SHALL DE
THE EXACT LOCATION OF
EXISTING UTILITIES PRIO
BEGINNING WORK AND S
FULLY RESPONSIBLE FOR
ALL DAMAGES WHICH MIC

#### **BENCHMARK INFORMATION:**

CP-1: CP SET 5/8-INCH REBAR IN CONC W/ ALUM CAP STAMPED "LJAS CP 1" N: 13.655.133.81' E: 2,094,422.09'

ELEVATION = 623.13

CP-2: CP SET 5/8-INCH REBAR IN CONC W/ ALUM CAP STAMPED "LJAS CP 2" N: 13,655,506.71'

E: 2,094,043.20' **ELEVATION = 624.74'** 

THIS INFORMATION PROVIDED BY: LJA LAND SURVEY

# TIMMS SUBDIVISION UNIT 8 WATER CONSTRUCTION PLANS LAND-PLAT-22-11800364 SAN ANTONIO, TEXAS 78073 **BEXAR COUNTY**

![](_page_6_Picture_74.jpeg)

LOCATION MAP (N.T.S.) SUBMITTAL DATE: JUNE 2024

PROPERTY DESCRIPTION BEING 28.89 ACRES OUT OF CALLED 79.238 ACRE TRACT OF LAND, AS CONVEYED TO CHARLES A. TIMMS AND RECORDED IN VOLUME 18638, PAGE 728, OF THE OFFICIAL PUBLIC RECORDS OF BEXAR COUNTY, TEXAS, AND SITUATED IN THE FRANCISCO A. RUIZ SURVEY NO. 47, ABSTRACT NO. 614, COUNTY BLOCK 4300, IN THE CITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS.

![](_page_6_Picture_77.jpeg)

SH

ET NUMBER	SHEET DESCRIPTION
1	COVER
2	GENERAL NOTES
3	UTILITY LAYOUT (SHEET 1 OF 3)
4	UTILITY LAYOUT (SHEET 2 OF 3)
5	UTILITY LAYOUT (SHEET 3 OF 3)
6	CPS ENERGY DETAILS
7	WATER COVER
8	WATER LAYOUT (SHEET 1 OF 2)
9	WATER LAYOUT (SHEET 2 OF 2)
10	WASTEWATER COVER
11	WASTEWATER LAYOUT (SHEET 1 OF 3)
12	WASTEWATER LAYOUT (SHEET 2 OF 3)
13	WASTEWATER LAYOUT (SHEET 3 OF 3)
14	WASTEWATER LINE 'A' PLAN & PROFILE STA. 1+00.00 TO 11+00.00
15	WASTEWATER LINE 'A' PLAN & PROFILE STA. 11+00.00 TO 22+00.00
16	WASTEWATER LINE 'A' PLAN & PROFILE STA. 22+00.00 TO END
17	WASTEWATER LINE 'B' PLAN & PROFILE STA. 1+00.00 TO 7+00.00
18	WASTEWATER LINE 'B' PLAN & PROFILE STA. 7+00.00 TO END
19	WASTEWATER LINE 'C' PLAN & PROFILE STA 1+00.00 TO 9+00.00
20	WASTEWATER LINE 'C' PLAN & PROFILE 9+00.00 TO END
21	WASTEWATER LINE 'D, E, & F' PLAN & PROFILE STA. 1+00.00 TO END
22	EXISTING DRAINGE AREA MAP
23	PROPOSED DRAINAGE AREA MAP
24	ULTIMATE DRAINAGE AREA MAP (SHEET 1 OF 2)
25	ULTIMATE DRAINAGE AREA MAP (SHEET 2 OF 2)
26	GRADING PLAN (SHEET 1 OF 2)
27	GRADING PLAN (SHEET 2 OF 2)
28	DRAIN 'A' PLAN & PROFILE STA. 1+00.00 TO END
29	DRAIN 'B' PLAN & PROFILE STA. 1+00.00 TO END
30	EXISTING CHANNEL IMPROVEMENTS PLAN & PROFILE STA. 1+00.00 TO EN
31	DRAINAGE DETAILS (SHEET 1 OF 2)
32	DRAINAGE DETAILS (SHEET 2 OF 2)
33	TIMMS PKWY PLAN & PROFILE STA. 1+00.00 TO STA. 12+00.00
34	TIMMS PKWY PLAN & PROFILE STA. 12+00.00 TO END
35	LAMAR PASS PLAN & PROFILE STA. 1+00.00 TO END
36	RED PLAINS DR PLAN & PROFILE STA. 1+00.00 TO STA. 9+00.00
37	RED PLAINS DR PLAN & PROFILE STA.9+00.00 TO END
38	TALL GRASS LN PLAN & PROFILE STA. 1+00.00 TO END
39	BROWN SEED DR PLAN & PROFILE
40	SIGNAGE (SHEET 1 OF 2)
41	SIGNAGE (SHEET 2 OF 2)
42	TRAFFIC DETAILS (SHEET 1 OF 2)
43	TRAFFIC DETAILS (SHEET 2 OF 2)
44	STORM WATER POLLUTION PREVENTION PLAN 1
45	STORM WATER POLLUTION PREVENTION PLAN 2

AGAVE SUBDIVISION UNIT 6

LJA Engineering, Inc.

9830 Colonnade Blvd Suite 300 San Antonio, Texas 78230

![](_page_6_Picture_82.jpeg)

Phone 210.503.2700 LJA.COM FRN-F-1386

![](_page_7_Figure_0.jpeg)

![](_page_7_Figure_2.jpeg)

![](_page_7_Figure_3.jpeg)

SPECIFICATION ITEM NO. 852.

812 WATER MAIN INSTALLATION

828 GATE VALVES

834 FIRE HYDRANTS

840 WATER TIE-INS

847 DISINFECTION

839 JOINT RESTRAINTS

841 HYDROSTATIC TESTING

856 JACKING, BORING OR TUNNELING PIPE

WATER: SAWS PRESSURE ZONE 2

DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC

DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304

CITY \_\_\_\_\_SHAVANO PARK \_\_\_\_\_\_STATE \_\_TEXAS

831 CUT-IN TEE

824 WATER SERVICE SUPPLY LINES

SAWS CONSTRUCTION NOTES

SPECIFICATIONS.

![](_page_7_Figure_4.jpeg)

SHEETS

of **45** 

![](_page_8_Figure_0.jpeg)

![](_page_8_Figure_1.jpeg)

![](_page_8_Figure_3.jpeg)

VOLUME

PAGE

![](_page_8_Figure_4.jpeg)

- 1. FIRE HYDRANT SHALL BE LOCATED BEHIND SIDEWALK IN ACCORDANCE WITH THE FIRE HYDRANT INSTALLATION DETAIL DD-834-01.
- 2. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION.
- 3. ALL VALVES SHALL READ "OPEN RIGHT".
- 4. ALL FIRE HYDRANTS SHALL BE PAINTED APPROPRIATE SAWS COLORS.
- 5. FIRE HYDRANTS AND VALVE BOXES TO BE RAISED TO THE PROPOSED TOP OF PAVEMENT OR GROUND ELEVATION.
- 6. ALL WATER PIPE TO BE C-900, DR-18, CLASS 235 UNLESS OTHERWISE NOTED.
- 7. CONTRACTOR SHALL VERIFY GRAVITY INVERTS PRIOR TO CONSTRUCTION AND NOTIFY CIVIL ENGINEER IN WRITING OF ANY DISCREPANCIES.
- 8. CONTRACTOR TO REFERENCE MOST CURRENT SAWS DETAILS & SPECIFICATIONS. FOR SEWER MANHOLES REFERENCE SAWS STANDARD SPECIFICATION ITEM NO. 852.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

SAWS CONSTRUCTION NOTES CONTRACTOR SHALL REFERENCE THE CURRENT SAWS CONSTRUCTION SPECIFICATIONS & DETAILS AT THE TIME OF THE DATED PLAN SHEET. SEE BELOW FOR REFERENCED SPECIFICATIONS.

#### SAWS WATER ITEM NUMBERS: 812 WATER MAIN INSTALLATION

- 824 WATER SERVICE SUPPLY LINES
- 828 GATE VALVES
- 831 CUT-IN TEE
- 834 FIRE HYDRANTS
- 839 JOINT RESTRAINTS
- 840 WATER TIE-INS
- 841 HYDROSTATIC TESTING
- 844 TEMP AND PERMANENT BLOW OFF ASSEMBLIES
- 847 DISINFECTION
- 856 JACKING, BORING OR TUNNELING PIPE

WATER: SAWS PRESSURE ZONE 2
DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC
DEVELOPER'S ADDRESS:3619 PAESANOS PARKWAY, #304
CITY SHAVANO PARK STATE TEXAS ZIP 78231
PHONE #(210) 405-0195 EMAIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.CO
SAWS BLOCK MAP # 124530,124532 TOTAL EDU'S 119 TOTAL ACREAGE 28.89 AC
TOTAL LINEAR FOOTAGE OF PIPE:
NUMBER OF LOTS:118 SAWS JOB NO22-1148

SANITARY SEWER MANHOLE SANITARY SEWER LINE WATER LINE FORCE MAIN (BY OTHERS) SANITARY SEWER LATERAL CLEAN OUT (INSTALL BY HOME BUILDER) WATER VALVE SINGLE WATER SERVICE DUAL WATER SERVICE DUAL WATER SERVICE FIRE HYDRANT 1*-6" (CPS) 2-4" CONDUITS (ATT/SPECTRUM) WATER METER GAS VALVE GAS LINE STORM SEWER MANHOLE CURB INLET POWER POLE					LAINU-FLA I -22- I 1000004	WATER LAYOUT		(SHEET Z OF Z)	
STREET LIGHT (100 WATT LED) STREET LIGHT (250 WATT LED) GUY WIRE OVERHEAD ELECTRIC BENCHMARK		BY DATE		JU 00/24/2024					
TOP OF MANHOLE EXISTING GAS, ELEC, TELE & CABLE TV ESM'T.			7						
EASEMENT VOLUME PAGE 4" CONDUIT FOR WATER SERVICE PHASE LINE CORDANCE WITH	REVISIONS	DESCRIPTION	BLK 21 NCB 14495 CONFIGURATION	UTILITY SERVICES CHANGE					
EXISTING UTILITIES			LOTS 1-12	&					
S COLORS. ROPOSED TOP OF		NO	~						
HERWISE NOTED. ONSTRUCTION NCIES.		023	d, JD		M, JF	TH		dwg	
ILS & S STANDARD		1/23/	7				ļ	ater Layout.	
DARD SPECIFICATION ENTS AND REQUIREMENTS.		DATE:	DESIGNED BY:		DRAWN BY:	CHECKED BY:	DRAWING NAM	sh_Wa	
S OF ID S:	all garage			E LL/ 10 /C	OF A G 98 NA	FL SEC		**************************************	
		i			Dhone 210 503 2700		TRPF No. F-1386		
78231 MUNITIES.COM IGE _28.89 AC T-22-11800364	JC	)B I Si					San Antonio. Texas 78230		
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of **45** 

SHEETS

Revised December 2021

#### SAWS CONSTRUCTION NOTES COUNTER PERMIT AND GENERAL CONSTRUCTION PERMIT

GENERAL CONSTRUCTION

- 1. All materials and construction procedures within the scope of this contract shall be approved by the San Antonio Water System (SAWS) and comply with the Plans, Specifications, General Conditions and with the following as applicable:
- A.Current Texas Commission on Environmental Quality (TCEQ) "Design Criteria for Domestic Wastewater System", Texas Administrative Code (TAC) Title 30 Part 1 Chapter
- 217 and "Public Drinking Water", TAC Title 30 Part 1 Chapter 290. B. Current TXDOT "Standard Specifications for Construction of Highways, Streets
- and Drainage.
- C. Current "San Antonio Water System Standard Specifications for Water and Sanitary Sewer Construction'
- D. Current City of San Antonio "Standard Specifications for Construction." E. Current City of San Antonio "Utility Excavation Criteria Manual" (UECM).
- 2. The Contractor shall obtain SAWS Standard Details from SAWS website, 2. The Contractor shall obtain SAWS standard Details noted within design <u>https://apps.saws.org/business\_center/specs/constspecs/</u> unless otherwise noted within design <u>SEWER</u>
- 3. The Contractor is to notify and make arrangements with the SAWS Construction Inspection 5. The Contractor is responsible for ensuring that no sanitary sewer overflow (SSO) occurs as a result Division at 210-233-3500 (during regular SAWS working hours) and provide notification procedures the Contractor will use to notify affected home residents and/or property owners two (2) weeks prior to excavation. Outside of regular SAWS working hours the SAWS EOC should be contacted at 210-704-7297.
- 4. If necessary, Contractor will coordinate use of SAWS premises at no additional cost to SAWS. Such efforts include, but are not limited to, obtaining security identification badges required for access to SAWS facilities.
- 5. Locations and depths of existing utilities and service laterals shown on the plans are understood to be approximate. Actual locations and depths must be field verified by the Contractor prior to construction. It shall be the Contractor's responsibility to locate utility service lines as required for construction and to protect them during construction at no cost to SAWS.
- 6. The Contractor shall verify the exact location of underground utilities and drainage structures prior to construction whether shown on plans or not. As-builts for SAWS infrastructure can be obtained at website below. Contractor shall coordinate physical locates for SAWS infrastructure through the SAWS Inspector. Please allow up to 7 business days for locates requesting pipe location markers on SAWS infrastructure. The following contact information are supplied for verification purposes:
  - San Antonio Water System:
- Request as-builts: https://www.saws.org/service/locates-service/
- COSA Drainage 210-206-8433 COSA Traffic Signal Operations 210-207-7720
- Texas Statewide One Call Locator 1-800-545-6005 or 811
- 7. The Contractor shall be responsible for restoring existing fences, curbs, streets, driveways sidewalks, landscaping, and structures to its original or better condition as a result of damages done by the project's construction.
- 8. Contractor shall not make use of dumpsters or waste bins that are intended to serve residents and/or businesses.
- accordance with respective construction specifications and permit
- 10.The Contractor shall comply with City of San Antonio or other governing Municipality's tree ordinances when excavating near trees.
- 11.All work within the 100-year Floodplain shall be done in accordance with Floodplain Development Permit. 12. Any work completed without prior written authorization which is not included in these plans and
- specifications will not be compensated by the San Antonio Water System.
- 13. Holiday Work: Contractors will not be allowed to perform SAWS work on SAWS recognized holidays.
- Weekend Work: Contractors are required to submit request to the SAWS Inspection Construction department by 12:00pm on the Wednesday prior to the weekend being requested. Request should be sent to constworkreg@saws.org.
- Any and all SAWS utility work installed without weekend approval will be subject to be Add applicable TCEQ notes under headings below if applicable and remove all red text herein. uncovered for proper inspection at no cost to SAWS.
- accurate documentation of the existing conditions (NSPI).
- poles along the project corridor. Contractors should further be advised that if the distance from the PLAN outside face of a utility trench to the face of a utility pole is less than 5 feet, said utility pole is If applicable to the project in question, add General Notes required in TCEQ Form TCEQ-592 available subject to bracing, based on a determination made by utility pole owner. Costs incurred by at https://www.tceq.texas.gov/permitting/eapp/material.html contractor for bracing of these utility poles is subsidiary to that respective utility company's work. It is advisable for the contractor to review the construction documents and visit the construction TCEQ: EDWARDS AQUIFER PROTECTION - CONTRIBUTING ZONE PLAN site to determine potential impacts.
- 16. CONSTRUCTION SEQUENCING: It is the Contractor's sole responsibility to schedule sequencing for removal and installation of existing and proposed SAWS utilities in conjunction with general project construction. Sequence of construction activities shall be considered in order to minimize the extent and duration of disturbances.
- 17.Contractor shall comply with applicable regulations including, but not limited to, those overseen at <u>https://www.tceq.texas.gov/permitting/eapp/material.html</u> by the U.S. Occupational Safety and Health Administration (OSHA). OSHA information and related materials may be obtained at https://www.osha.gov/ or at the OSHA San Antonio Office located at Fountainhead Tower. Suite 605 8200 W. Interstate 10 San Antonio, TX 78230 which is also reachable by phone at (210) 472-5040.
- 18.TRENCH EXCAVATION SAFETY PROTECTION: Contractor and/or Contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation site(s) within the project work areas in order to implement Contractor's trench excavation safety protection systems, programs and/or procedures. The Contractor's implementation of the systems, programs and/or procedures shall provide for adequate trench excavation safety protection that omplies with, as a minimum, OSHA standards for trench excavations. Specifically, Contractor and/or Contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of

individuals working in and around trench excavation.

#### WATER

- 1. Prior to tie-ins, any shutdowns of existing mains of any size must be coordinated with the SAWS Inspection and/or SAWS Production groups at least two weeks or more in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins; this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly. SAWS Production Control Center 210-233-2016
- 2. Asbestos Cement (AC) pipe, also known as transite pipe which is known to contain asbestos-containing material (ACM), maybe located within the project limits. Special waste management procedures and health and safety requirements will be applicable when removal and/or disturbance of this pipe occurs, Payment for such work is to be made under Item No. 3000,

# REVISIONS DESCRIPTION BY DATE NO.

"Handling Asbestos Cement Pipe"

AC pipe removed on construction projects for tie-in(s) should be in length of 26 linear feet (LF) Lengths of 13 LF should be removed where AC pipe is being removed and crossing pipes, conduits, or boxes.

- 3. VALVE REMOVAL: Where the contractor is to abandon a water main, the control valve located on the abandoning branch will be removed and replaced with a cap/plug. (NSPI)
- 4. DIVISION VALVES: Division Valves shown on plans or not shown on plans but found in the field shall only be operated by SAWS Distribution and Collection staff and only with prior written approval of the SAWS Director of Production and Operations and proper coordination with all SAWS departments. Contractor shall provide written notification to the inspector a minimum of two weeks in advance to start the coordination process and will be informed by the Inspector when the division valve will be operated by the SAWS Distribution and Collection staff. The Division Valve can only be operated by SAWS Distribution and Collection staff member not the inspector or the contractor. Operation of a
- Division Valve without the express prior written approval of the SAWS Distribution and Collection staff will constitute a material breach of any written SAWS contract or permit in addition to subjecting the Contractor to liability for any and all fines, fees, or other damages, direct or consequential, that may arise from or be caused by the operation of the valve without prior written permission. Please be informed that the approval of the operation or opening or closing of a division valve can take several weeks for approval. Division Valves will also have a valve lid labeled Division Valve and a locking mechanism installed with a key. The lock and key mechanism will be paid for by the contractor but will be installed by SAWS Distribution and Collection staff.
- of their work. All contractor personnel responsible for SSO prevention and control shall be trained on proper response. Should an SSO occur, the contractor shall:
- A. Identify the source of the SSO and notify SAWS Emergency Operations Center (EOC) immediately at 210-704-SAWS (210-704-7297). Provide the address of the spill and an estimated volume or flow.
- B. Attempt to eliminate the source of the SSO C. Contain sewage from the SSO to the extent of preventing a possible contamination of
- waterways D. Clean up spill site (return contained sewage to the collection system if possible) and properly dispose of contaminated soil/materials.
- E. Clean the affected sewer mains and remove any debris. F. Meet all post-SSO requirements as per the EPA Consent Decree, including line cleaning and
- televising the affected sewer mains (at SAWS direction) within 24 hours. Should the Contractor fail to address an SSO immediately and to SAWS satisfaction, they will be

responsible for all costs incurred by SAWS, including any fines from EPA.

No separate measurement or payment shall be made for this work. All work shall be done according to guidelines set by the TCEO and SAWS.

- 6. The Contractor shall provide bypass pumping of sewage around each segment of pipe to be replaced, in accordance with SAWS Standard Specification Item No. 865, "Bypass Pumping Small Diameter Sanitary Sewer Mains" and Standard Specification Item No. 864, "Bypass Pumping Large Diameter Sanitary Sewer Mains" as applicable. Payment for such work will be made under the appropriate bid item associated with Sanitary Sewer Bypass Pumping in accordance with SAWS Standard Specifications 865 and 864.
- 7. Prior to tie-ins, any shutdowns of existing force mains of any size must be coordinated with the SAWS Construction Inspection Division at 210-233-3500 and/or SAWS Production groups at least two weeks or more in advance of the shutdown. The Contractor must also provide a sequence of work as related to the tie-ins: this is at no additional cost to SAWS or the project and it is the responsibility of the Contractor to sequence the work accordingly.
- 9. All work in Texas Department of Transportation and Bexar County right-of-way shall be done in 8. ELEVATIONS POSTED FOR TOP OF MANHOLES ARE FOR REFERENCE ONLY: It shall be the responsibility of the Contractor to make allowances and adjustments for top of manholes to match the finished grade of the project's improvements (NSPI).
  - 9. MANHOLE REMOVAL: Where existing manholes are to be replaced by the contractor , the existing manholes shall be removed. (NSPI)
  - 10.SMART MANHOLE COVERS: The Contractor shall notify SAWS EOC at 210-704- SAWS (210-233-7297) and either America Espinoza at 210-233-2934 or Jose A. Martinez at 210-233-3071 a minimum of 72 hours, not counting weekends or SAWS holidays, before working on the pipe or manhole, in order to have SAWS remove the Smart Cover. Any damage done to the Smart Cover will be charged to the Contractor through a change order.
  - 11.FLOW METERS IN MANHOLES: The Contractor shall notify Bobby Johnson at 210-233-3493 or Abel Borunda at 210-233-3704 a minimum of 72 hours, not counting weekends or SAWS holidays, before working on the pipe or manhole, in order to have SAWS remove the Flow Meter in the manhole. Any damage done to the Flow Meter will be charged to the Contractor through a

Remove any text below, including headings, which is not applicable to the project in question

- 14.PRE-CON SITE VIDEO: Before the start of any construction. The site must be video recorded by TCEQ: EDWARDS AQUIFER PROTECTION LIFT STATIONS AND FORCE MAINS the contractor with one copy submitted to SAWS Inspections. A pre-site video will provide If applicable to the project in question, add General Notes required in TCEQ Form TCEQ-591 available at https://www.tceq.texas.gov/permitting/eapp/material.html
- 15.POWER POLE BRACING: Contractors should be advised that there are existing overhead utility TCEQ: EDWARDS AQUIFER PROTECTION WATER POLLUTION ABATEMENT

  - If applicable to the project in question, add General Notes required in TCEQ Form TCEQ- 592A available at https://www.tceq.texas.gov/permitting/eapp/material.html

SYSTEM If applicable to the project in question, add General Notes required in TCEQ Form TCEQ-596 available

#### LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C

DEVELOPER'S NAME: CEN	TURY LAND HOLDINGS II, LLC	
DEVELOPER'S ADDRESS: 3619 PA	ESANOS PARKWAY, #304	
CITY SHAVANO PARK	STATE TEXAS	ZIP 78231
PHONE # (210) 405-0195	EMAIL: RUDY.MUNOZ@CE	NTURYCOMMUNITIES.COM
SAWS BLOCK MAP # 124530, 124532	TOTAL EDU'S 118 TO	TAL ACREAGE 28.89 AC
TOTAL LINEAR FOOTAGE OF PIPE:	8" - 5,175 LF 15" - 33 LF PLAT NO.	LAND-PLAT-22-11800364
NUMBER OF LOTS: 118	SAWS JOB NO.	22-1643

LOCATION OF EXISTING
UNDERGROUND AND OVE
UTILITIES ARE APPROXIM
LOCATIONS ONLY. THE
CONTRACTOR SHALL DET
THE EXACT LOCATION OF
EXISTING UTILITIES PRIOR
BEGINNING WORK AND SI
FULLY RESPONSIBLE FOF
ALL DAMAGES WHICH MIC

#### **BENCHMARK INFORMATION:**

CP-1: CP SET 5/8-INCH REBAR IN CONC W/ ALUM CAP STAMPED "LJAS CP 1" N: 13,655,133.81' E: 2,094,422.09'

ELEVATION = 623.13

CP-2: CP SET 5/8-INCH REBAR IN CONC W/ ALUM CAP STAMPED "LJAS CP 2" N: 13,655,506.71' E: 2,094,043.20'

**ELEVATION = 624.74'** 

THIS INFORMATION PROVIDED BY: LJA LAND SURVEY

# TIMMS SUBDIVISION UNIT 8 WASTEWATER CONSTRUCTION PLANS LAND-PLAT-22-11800364 SAN ANTONIO, TEXAS 78073 **BEXAR COUNTY**

![](_page_9_Picture_71.jpeg)

(N.T.S.) SUBMITTAL DATE: JUNE 2024

PROPERTY DESCRIPTION

![](_page_9_Picture_74.jpeg)

![](_page_9_Picture_75.jpeg)

SHEET NUMBER	SHEET DESCRIPTION
1	COVER
2	GENERAL NOTES
3	UTILITY LAYOUT (SHEET 1 OF 3)
4	UTILITY LAYOUT (SHEET 2 OF 3)
5	UTILITY LAYOUT (SHEET 3 OF 3)
6	CPS ENERGY DETAILS
7	WATER COVER
8	WATER LAYOUT (SHEET 1 OF 2)
9	WATER LAYOUT (SHEET 2 OF 2)
10	WASTEWATER COVER
11	WASTEWATER LAYOUT (SHEET 1 OF 3)
12	WASTEWATER LAYOUT (SHEET 2 OF 3)
13	WASTEWATER LAYOUT (SHEET 3 OF 3)
14	WASTEWATER LINE 'A' PLAN & PROFILE STA. 1+00.00 TO 11+00.00
15	WASTEWATER LINE 'A' PLAN & PROFILE STA. 11+00.00 TO 22+00.00
16	WASTEWATER LINE 'A' PLAN & PROFILE STA. 22+00.00 TO END
17	WASTEWATER LINE 'B' PLAN & PROFILE STA. 1+00.00 TO 7+00.00
18	WASTEWATER LINE 'B' PLAN & PROFILE STA. 7+00.00 TO END
19	WASTEWATER LINE 'C' PLAN & PROFILE STA 1+00.00 TO 9+00.00
20	WASTEWATER LINE 'C' PLAN & PROFILE 9+00.00 TO END
21	WASTEWATER LINE 'D, E, & F' PLAN & PROFILE STA. 1+00.00 TO END
22	EXISTING DRAINGE AREA MAP
23	PROPOSED DRAINAGE AREA MAP
24	ULTIMATE DRAINAGE AREA MAP (SHEET 1 OF 2)
25	ULTIMATE DRAINAGE AREA MAP (SHEET 2 OF 2)
26	GRADING PLAN (SHEET 1 OF 2)
27	GRADING PLAN (SHEET 2 OF 2)
28	DRAIN 'A' PLAN & PROFILE STA. 1+00.00 TO END
29	DRAIN 'B' PLAN & PROFILE STA. 1+00.00 TO END
30	EXISTING CHANNEL IMPROVEMENTS PLAN & PROFILE STA. 1+00.00 TO END
31	DRAINAGE DETAILS (SHEET 1 OF 2)
32	DRAINAGE DETAILS (SHEET 2 OF 2)
33	TIMMS PKWY PLAN & PROFILE STA. 1+00.00 TO STA. 12+00.00
34	TIMMS PKWY PLAN & PROFILE STA. 12+00.00 TO END
35	LAMAR PASS PLAN & PROFILE STA. 1+00.00 TO END
36	RED PLAINS DR PLAN & PROFILE STA. 1+00.00 TO STA. 9+00.00
37	RED PLAINS DR PLAN & PROFILE STA.9+00.00 TO END
38	TALL GRASS LN PLAN & PROFILE STA. 1+00.00 TO END
39	BROWN SEED DR PLAN & PROFILE
40	SIGNAGE (SHEET 1 OF 2)
41	SIGNAGE (SHEET 2 OF 2)
42	TRAFFIC DETAILS (SHEET 1 OF 2)
43	TRAFFIC DETAILS (SHEET 2 OF 2)
44	STORM WATER POLLUTION PREVENTION PLAN 1
45	STORM WATER POLLUTION PREVENTION PLAN 2

AGAVE SUBDIVISION UNIT 6

# LJA Engineering, Inc.

9830 Colonnade Blvd Suite 300 San Antonio, Texas 78230

![](_page_9_Picture_79.jpeg)

![](_page_10_Figure_0.jpeg)

![](_page_10_Figure_1.jpeg)

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582-

## **GENERAL NOTES**

SHEET 12-

- . THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SAWS SPECIFICATIONS.
- 2. THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SAWS SPECIFICATIONS.
- 3. THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO BEGINNING WATER CONSTRUCTION AND TESTING SCHEDULE.
- 4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO ALL TESTING ON THE SANITARY SEWER SYSTEM.
- 5. ANY TESTING PERFORMED WITHOUT THE PRESENCE OF THE ENGINEER WILL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH COPIES OF TV-VIDEO INSPECTIONS WHEN COMPLETED AND COMPACTION TESTING RESULTS PRIOR TO FINAL TESTING OBSERVATION BY THE ENGINEER.
- 7. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET FOR 50 FEET ROW, 40 FT. FOR 60 FEET ROW IN LENGTH UNLESS NOTED OTHERWISE.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.TV.E. EASEMENT AND CAPPED AND SEALED.
- 10. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE PROPERTY LINE.
- 12. CONTRACTOR TO FIELD VERIFY ALL MATCH EXISTING ELEVATIONS, SEWER MANHOLE INVERTS, STORM DRAIN INVERTS, AND ALL OTHER UTILITIES PRIOR TO UTILITY WORK AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.
- 13. REFER TO THIS SHEET FOR STANDARD WATER/ WASTE WATER CROSSING DETAILS.
- 14. RIM ELEVATIONS OF PROPOSED MANHOLES THAT ARE NOT WITHIN STREET RIGHT-OF-WAY ARE TO BE APPROXIMATELY 6" ABOVE NATURAL GROUND.
- 15. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
- 16. COORDINATES ARE BASED ON STATE PLANE TX83-SCF- SURFACE. SCALE FACTOR: 1.00013. 17. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION,
- TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

![](_page_10_Figure_20.jpeg)

LIVE OAK SLOUGH-MEDINA RIVER WATERSHED
SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C.
DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC
DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304
CITYSHAVANO PARKSTATETEXAS ZIP78231
PHONE # (210) 405-0195 EMAIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.COM
SAWS BLOCK MAP # 124530, 124532 TOTAL EDU'S 119 TOTAL ACREAGE 28.89 AC
TOTAL LINEAR FOOTAGE OF PIPE: 15" - 33 LF PLAT NO. LAND-PLAT-22-11800364
NUMBER OF LOTS:         119         SAWS JOB NO.         22-1643

![](_page_10_Figure_22.jpeg)

- (A) EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

SAWS CONSTRUCTION NOTES CONTRACTOR SHALL REFERENCE THE CURRENT SAWS CONSTRUCTION SPECIFICATIONS & DETAILS AT THE TIME OF THE DATED PLAN SHEET. SEE BELOW FOR REFERENCED SPECIFICATIONS.

#### SAWS SEWER ITEM NUMBERS: 804 EXCAVATION TRENCHING AND BACKFILL

848 SANITARY SEWER

- 850 POLYMER CONCRETE SANITARY SEWER STRUCTURES 852 SANITARY SEWER MANHOLES
- 854 SANITARY SEWER LATERALS

858 CONCRETE ENCASEMENT CRADLES SADLES & COLLARS

860 VERTICAL STACKS

CAUTION: CONTRACTOR TO NOTIFY TEXAS ONE CALL AT 1-800-245-4545 48 HOURS PRIOR TO CONSTRUCTION FOR UTILITY LINE LOCATE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILIT PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY SIGNIFICANT DISCREPANCIES OR REQUI DESIGN CHANGES. EXISTING UTILITIES SHOWN HEREON ARE FO INFORMATIONAL PURPOSES ONLY. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS INFORMATION. LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE

![](_page_10_Picture_35.jpeg)

![](_page_10_Picture_36.jpeg)

Call before you d

SHEETS

TRENCH EXCAVATION SAFETY PROTECTION CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE STRUCTURAL DESIGN/GEOTECHNICAL/ SAFETY/EQUIPMENT CONSULTANT, IF ANY SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AN THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL

PROVIDE FOR ADEQUATE TRENCH EXCAVATION, SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. OF 45

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.ED) .ED)		DATE							
		BΥ							
	REVISIONS	DESCRIPTION							
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		DATE: 7/6/20:	DESIGNED BY: JM		DRAWN BY: JM	СНЕСКЕD ВУ: Т		sh_Wastewater Layout.dv	
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					Dhone 210 503 2700	Fax 210.503.2749	TRDE No. E-1386		
			I IA Engineering Inc		1100 NE L new 410	Suite 850	San Antonio Texas 78209		
NY, ND 'S	JC SF	)B N S/ HEE	NUN 419 ET N	ИВ 19-( 10	ER 040	: 4C-	42	6	
				I					

![](_page_11_Figure_0.jpeg)

![](_page_11_Figure_1.jpeg)

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SAWS SPECIFICATIONS.
- 2. THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SAWS SPECIFICATIONS.
- 3. THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO BEGINNING WATER CONSTRUCTION AND TESTING SCHEDULE.
- 4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO ALL TESTING ON THE SANITARY SEWER SYSTEM.
- 5. ANY TESTING PERFORMED WITHOUT THE PRESENCE OF THE ENGINEER WILL BE REDONE AT THE CONTRACTOR'S EXPENSE
- 6. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH COPIES OF TV-VIDEO INSPECTIONS WHEN COMPLETED AND COMPACTION TESTING RESULTS PRIOR TO FINAL TESTING OBSERVATION BY THE ENGINEER.
- 7. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET FOR 50 FEET ROW, 40 FT. FOR 60 FEET ROW IN LENGTH UNLESS NOTED OTHERWISE.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.TV.E. EASEMENT AND CAPPED AND SEALED.
- 10.LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE PROPERTY LINE.
- 12. CONTRACTOR TO FIELD VERIFY ALL MATCH EXISTING ELEVATIONS, SEWER MANHOLE INVERTS, STORM DRAIN INVERTS, AND ALL OTHER UTILITIES PRIOR TO UTILITY WORK AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.
- 13. REFER TO THIS SHEET FOR STANDARD WATER/ WASTE WATER CROSSING DETAILS.

14.RIM ELEVATIONS OF PROPOSED MANHOLES THAT ARE NOT WITHIN STREET RIGHT-OF-WAY ARE TO BE APPROXIMATELY 6" ABOVE NATURAL GROUND.

15. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST. 16. COORDINATES ARE BASED ON STATE PLANE TX83-SCF- SURFACE. SCALE FACTOR: 1.00013.

17. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

> SAWS CONSTRUCTION NOTES CONTRACTOR SHALL REFERENCE THE CURRENT SAWS CONSTRUCTION SPECIFICATIONS & DETAILS AT THE TIME OF THE DATED PLAN SHEET. SEE BELOW FOR REFERENCED SPECIFICATIONS.

#### SAWS SEWER ITEM NUMBERS: 804 EXCAVATION TRENCHING AND BACKFILL

- 848 SANITARY SEWER
- 850 POLYMER CONCRETE SANITARY SEWER STRUCTURES
- 852 SANITARY SEWER MANHOLES
- 854 SANITARY SEWER LATERALS
- 858 CONCRETE ENCASEMENT CRADLES SADLES & COLLARS
- 860 VERTICAL STACKS

![](_page_11_Picture_26.jpeg)

-578--

![](_page_11_Figure_29.jpeg)

AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION. OF 45

![](_page_12_Figure_0.jpeg)

- . THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SAWS SPECIFICATIONS.
- 2. THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SAWS SPECIFICATIONS.
- 3. THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO BEGINNING WATER CONSTRUCTION AND TESTING SCHEDULE.
- 4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO ALL TESTING ON THE SANITARY SEWER SYSTEM.
- 5. ANY TESTING PERFORMED WITHOUT THE PRESENCE OF THE ENGINEER WILL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH COPIES OF TV-VIDEO INSPECTIONS WHEN COMPLETED AND COMPACTION TESTING RESULTS PRIOR TO FINAL TESTING OBSERVATION BY THE ENGINEER.
- 7. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET FOR 50 FEET ROW, 40 FT. FOR 60 FEET ROW IN LENGTH UNLESS NOTED OTHERWISE.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.TV.E. EASEMENT AND CAPPED AND SEALED.
- 10. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE PROPERTY LINE.
- 12. CONTRACTOR TO FIELD VERIFY ALL MATCH EXISTING ELEVATIONS, SEWER MANHOLE INVERTS, STORM DRAIN INVERTS, AND ALL OTHER UTILITIES PRIOR TO UTILITY WORK AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.
- 13. REFER TO THIS SHEET FOR STANDARD WATER/ WASTE WATER CROSSING DETAILS.
- 14. RIM ELEVATIONS OF PROPOSED MANHOLES THAT ARE NOT WITHIN STREET RIGHT-OF-WAY ARE TO BE APPROXIMATELY 6" ABOVE NATURAL GROUND.
- 15. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
- 16. COORDINATES ARE BASED ON STATE PLANE TX83-SCF- SURFACE. SCALE FACTOR: 1.00013.
- 17. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

#### LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C.

DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC
DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304
CITYSHAVANO PARKSTATETEXASZIP78231
PHONE # (210) 405-0195 EMAIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.COM
SAWS BLOCK MAP # 124530, 124532 TOTAL EDU'S 118 TOTAL ACREAGE 28.89 AC
8" - 5,175 LF TOTAL LINEAR FOOTAGE OF PIPE: <u>15" - 33 LF</u> PLAT NO. <u>LAND-PLAT-22-11800364</u>
NUMBER OF LOTS:         118         SAWS JOB NO.         22-1643

![](_page_12_Figure_20.jpeg)

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SARA SPECIFICATIONS.
- 2. THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SARA SPECIFICATIONS.
- 3. THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO BEGINNING CONSTRUCTION AND TESTING SCHEDULE.
- 4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO ALL TESTING ON THE SANITARY SEWER SYSTEM.
- 5. ANY TESTING PERFORMED WITHOUT THE PRESENCE OF THE ENGINEER WILL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH COPIES OF TV-VIDEO INSPECTIONS WHEN COMPLETED AND COMPACTION TESTING RESULTS PRIOR TO FINAL TESTING OBSERVATION BY THE ENGINEER.
- 7. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.CA. EASEMENT AND CAPPED AND SEALED.
- 10. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE 10' G.E.T.CA.
- 11. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
- 12. ALL CLEANOUTS TO BE CONSTRUCTED AT PROPERTY LINE.
- 13. COORDINATES ARE BASED ON STATE PLANE TX83-SCF-SURFACE. SCALE FACTO: 1.00013.

LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C.

DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC

CITY SHAVANO PARK STATE TEXAS ZIP 78231

PHONE # (210) 405-0195 EMAIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.COM

SAWS BLOCK MAP # 124530, 124532 TOTAL EDU'S 119 TOTAL ACREAGE 28.89 AC

22-1643

DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304

NUMBER OF LOTS: 119 SAWS JOB NO.

14. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

- $\langle A \rangle$  10' G.E.T.CA. ESM'T  $\langle B \rangle$  16' SANITARY SEWER ESM'T
- OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE
- / UPON INCORPORATION INTO PLATTED R.O.W.
- (VOL. 5729, PG 26, O.P.R.)
- (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

![](_page_13_Figure_22.jpeg)

	·····································	579.95 579.95 EX MH # (SAWS JC INV IN (N INV IN (N INV IN (N INV OUT 568.46 568.46	568.76	582.81 568.96 583.71	569.16 584.15 569.36	569.56			569.56	584.66 569.76	569.96	584.85 570.16	570.46	585.28	585.57 570.86	
565	Image: Constraint of the second se	1.50 WWL 'A' 2.03 0.00 NO. 12-2504) 1.10 1.568.35 (15") V): 543.92 (66") FRP (E): 543.92 (66") FRP	3.98 WWL A' .78 (S):568.58 (8") (S):568.48 (15")				565	565				TA:5+86.57 WML 'A'	H A2 MH:582.39 V IN (NE):570.41 (8") V OUT (W):570.31 (8")			
570	Image: select			432.59 L.F. 8" SDR	R-26 PVC @ 0.40%		570	570		43;	2.59 L.F. 8" SDR-26 I	PVC @ 0.40%				314.77 L
575			-32.48 L.F. 15" SDR-26	5 PVC @ 0.40%		ATCH LIN	575	575	AATCH LIN							
580	Image: Constraint of the second sec					E STA. 4+	580	580								
585						00 ÚH	585	585				EXIS		·		
590							590	590								
595	Image: Constraint of the second se						595	595								

- TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE
- TESTING SCHEDULE.
- THREE (3) DAYS PRIOR TO ALL TESTING ON THE SANITARY SEWER SYSTEM.
- 6. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH COPIES OF TV-VIDEO INSPECTIONS WHEN COMPLETED AND COMPACTION TESTING RESULTS PRIOR TO FINAL TESTING OBSERVATION BY THE ENGINEER.
- COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY OF THE NATIVE BACKGROUND VEGETATIVE COVER.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE SEALED.
- BE SLOPED FROM THE TEE OR STACK AT 2% TO THE 10'

- SURFACE. SCALE FACTO: 1.00013.

- (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304 NUMBER OF LOTS: \_\_\_\_\_119 \_\_\_\_ SAWS JOB NO. \_\_\_\_

![](_page_14_Figure_24.jpeg)

![](_page_14_Figure_25.jpeg)

![](_page_14_Figure_26.jpeg)

## GEONEINTEAR AN ONTOERSE S

- THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SARA SPECIFICATIONS.
- THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SARA SPECIFICATIONS.
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- 0. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE 10' G.E.T.CA.
- 1. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
- 2. ALL CLEANOUTS TO BE CONSTRUCTED AT PROPERTY LINE.
- 3. COORDINATES ARE BASED ON STATE PLANE TX83-SCF- SURFACE. SCALE FACTO: 1.00013.
- 4.CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING **REQUIREMENTS AND STANDARD SPECIFICATION 812** FOR WATER/SEWER SEPARATION REQUIREMENTS.
- LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304 CITY SHAVANO PARK \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_ ZIP \_\_\_\_\_ 78231 PHONE # (210) 405-0195 EMAIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.COM

- SAWS BLOCK MAP # 124530, 124532 TOTAL EDU'S 119 TOTAL ACREAGE 28.89 AC 8" - 5,175 LF TOTAL LINEAR FOOTAGE OF PIPE: <u>15" - 33 LF</u> PLAT NO. <u>LAND-PLAT-22-11800364</u>

![](_page_15_Figure_27.jpeg)

		19+	+00		20+	.00	21	+00	22	+00
	Ð	FL 575.15	575.97	576.21	577.59	576.58 577.96	576.90 579.40	577.22 581.61	577.54 577.54 584.01	577.86
565			.Y. TWW 2019+50.63 WWL 'A'	TMH:584.95 INV IN (NE):576.27 (8") INV OUT (SE):576.17 (8")						
570										
575		TCH LINE (SEE SH		290.00	L.F. 8	3" SDR-26 PVC @	0.40%	48	0.00 L.F. 8" SDR-2	6 PVC @
580		STA. 21+ EET 15)								
585		00							PROPOSED GRC	
590										
595										

![](_page_15_Figure_31.jpeg)

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SARA SPECIFICATIONS.
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- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.CA. EASEMENT AND CAPPED AND SEALED.
- 10. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE 10' G.E.T.CA.
- 11. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
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- A 10' G.E.T.CA. ESM'T
- $\langle B \rangle$  16' SANITARY SEWER ESM'T ○ OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE
- C UPON INCORPORATION INTO PLATTED R.O.W.
- $\langle \mathsf{D} \rangle$  variable width water esm't
- A EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

![](_page_16_Figure_22.jpeg)

#### LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C.

DEVELOPER'S NAME: CENTURY L	AND HOLDINGS II, LLC
DEVELOPER'S ADDRESS:	)S PARKWAY, #304
CITY SHAVANO PARK S	TATE ZIP ZIP
PHONE # (210) 405-0195 EM	AIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.COM
SAWS BLOCK MAP # _ 124530, 124532 _ T(	DTAL EDU'S 119 TOTAL ACREAGE 28.89 AC
8" - 5, TOTAL LINEAR FOOTAGE OF PIPE:	175 LF 33 LF PLAT NO. LAND-PLAT-22-11800364
NUMBER OF LOTS: 119 S	SAWS JOB NO 22-1643

				۵ ۵		87.75	
565					STA:16+60.63 WWL 'A'	MH A5 TMH:586.44	INV IN (NW):575.01 (8") INV IN (NE):577.24 (8") INV OUT (SE):574.91 (8")
570							J
575							
580							-
585							
590							
595							

![](_page_16_Figure_28.jpeg)

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SARA SPECIFICATIONS.
- 2. THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SARA SPECIFICATIONS.
- 3. THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO BEGINNING CONSTRUCTION AND TESTING SCHEDULE.
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- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
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- 14.CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

- $\langle A \rangle$  10' G.E.T.CA. ESM'T
- $\langle B \rangle$  16' SANITARY SEWER ESM'T
- C OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- $\langle \mathsf{D} 
  angle$  variable width water esm't
- A EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

![](_page_17_Figure_22.jpeg)

![](_page_17_Figure_23.jpeg)

#### LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C.

DEVELOPER'S NAME: CENTU	JRY LAND HOLDINGS II, LLC	
DEVELOPER'S ADDRESS:	SANOS PARKWAY, #304	
CITY SHAVANO PARK	STATE TEXAS	ZIP78231
PHONE # (210) 405-0195	EMAIL: RUDY.MUNOZ@CE	NTURYCOMMUNITIES.COM
SAWS BLOCK MAP # 124530, 124532	_ TOTAL EDU'S TO	DTAL ACREAGE 28.89 AC
8 TOTAL LINEAR FOOTAGE OF PIPE:	3" - 5,175 LF <u>15" - 33 LF</u> PLAT NO.	LAND-PLAT-22-11800364
NUMBER OF LOTS:119	SAWS JOB NO.	22-1643

595	MATCH LINE STA. 7+00 (SEE SHEET 17) (SEE SHEET 17)	
595	MATCH LINE STA. 7+00 (SEE SHEET 17)	
595       Image: state in the	ATCH LINE STA. 7+00 (SEE SHEET 17)	
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					605	605					
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					600	600		PROPO			
EXI	ISTING GROUND	PROPOSED GROUND-		0+00 IGHT)	595	595	10+00 LEFT)				
				NE STA. 1 SHEET R	590	590	INE STA. S SHEET	LOT 27, BLC	CK 21 NCB 14495 STA:11+67.69 ELEV:588.18		
	271.93 L.F. 8	9 SDR-26 PVC @ 1.2	20%	MATCH LI SEE THIS	585	585	MATCH L (SEE THI	119.91 L.F. 8"	SDR-26 PVC @ 1.009		
.86 L.F. 8"	SDR-26 PVC @ 0.5	0%			580	580					
					575	575		7.78 WML 'B' 80 M):585.98 (8") (S):585.88 (8")		95.12 TT (SE):587.18 (8")	
					570	570		STA:10+4 STA:10+4 MH B3 INV IN (N INV OUT		MH 153 TMH 154 INV 0.0	
593.94	583.51 594.93	584.11 595.49	584.71 595.95	585.31			595.95	585.31 596.40 585.99 586.71	586.50 597.02	587.00	
	9+	-00	10-	+00			10+	⊢00    11	+00	I	

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SARA SPECIFICATIONS.
- 2. THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SARA SPECIFICATIONS.
- 3. THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO BEGINNING CONSTRUCTION AND TESTING SCHEDULE.
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- 5. ANY TESTING PERFORMED WITHOUT THE PRESENCE OF THE ENGINEER WILL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH COPIES OF TV-VIDEO INSPECTIONS WHEN COMPLETED AND COMPACTION TESTING RESULTS PRIOR TO FINAL TESTING OBSERVATION BY THE ENGINEER.
- 7. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.CA. EASEMENT AND CAPPED AND SEALED.
- 10. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE 10' G.E.T.CA.
- 11. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
- 12. ALL CLEANOUTS TO BE CONSTRUCTED AT PROPERTY LINE. 13. COORDINATES ARE BASED ON STATE PLANE TX83-SCF-
- SURFACE. SCALE FACTO: 1.00013. 14.CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS
- STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

- $\langle A \rangle$  10' G.E.T.CA. ESM'T
- $\langle B \rangle$  16' SANITARY SEWER ESM'T
- OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- $\langle D \rangle$  VARIABLE WIDTH WATER ESM'T
- $\langle E \rangle$  5' WIDE ELECTRICAL ESM'T TO EXPIRE UPON INCORPORATION INTO FUTURE PLATTING
- (A) EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO
- (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

![](_page_18_Figure_24.jpeg)

#### LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C. DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304 ZIP 78231 CITY SHAVANO PARK STATE TEXAS

PHONE #(210) 405-0195	EMAIL: <u>RUDY.MUNOZ@CE</u>	NTURYCOMMUNITIES.COM
SAWS BLOCK MAP #124530, 12453	2 TOTAL EDU'S TO	TAL ACREAGE 28.89 AC
TOTAL LINEAR FOOTAGE OF PIPE:	8" - 5,175 LF <u>15" - 33 LF</u> PLAT NO	LAND-PLAT-22-11800364
NUMBER OF LOTS: 118	SAWS JOB NO	22-1643

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![](_page_18_Figure_30.jpeg)

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SARA SPECIFICATIONS.
- 2. THE CONTRACTOR MUST PROVIDE CERTIFICATION UPON REQUEST OF THE ENGINEER THAT ALL MATERIALS FOR THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MEET TCEQ AND SARA SPECIFICATIONS.
- 3. THE CONTRACTOR IS TO NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO BEGINNING CONSTRUCTION AND TESTING SCHEDULE.
- 4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST THREE (3) DAYS PRIOR TO ALL TESTING ON THE SANITARY SEWER SYSTEM.
- 5. ANY TESTING PERFORMED WITHOUT THE PRESENCE OF THE ENGINEER WILL BE REDONE AT THE CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH COPIES OF TV-VIDEO INSPECTIONS WHEN COMPLETED AND COMPACTION TESTING RESULTS PRIOR TO FINAL TESTING OBSERVATION BY THE ENGINEER.
- 7. AFTER ALL SANITARY SEWER CONSTRUCTION HAS BEEN COMPLETED, FINAL STABILIZATION OF THE CONSTRUCTION AREA ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES SHALL BE COMPLETED BY EVENLY DISTRIBUTING SEEDING AND WATERING TO A MINIMUM OF 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER.
- 8. ALL RESIDENTIAL SEWER SERVICE LATERALS ARE 6" DIA. AND 35 FEET IN LENGTH UNLESS NOTED OTHERWISE.
- 9. ALL RESIDENTIAL SEWER SERVICE LATERALS SHALL BE EXTENDED TO THE 10' G.E.T.CA. EASEMENT AND CAPPED AND SEALED.
- 10. LATERALS TO LOTS THAT SLOPE AWAY FROM STREET SHALL BE SLOPED FROM THE TEE OR STACK AT 2% TO THE 10' G.E.T.CA.
- 11. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
- 12. ALL CLEANOUTS TO BE CONSTRUCTED AT PROPERTY LINE. 13. COORDINATES ARE BASED ON STATE PLANE TX83-SCF-
- SURFACE. SCALE FACTO: 1.00013. 14. CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS

LIVE OAK SLOUGH-MEDINA RIVER WATERSHED

STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

- $\langle A \rangle$  10' G.E.T.CA. ESM'T
- $\langle B \rangle$  16' SANITARY SEWER ESM'T
- OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- $\langle D \rangle$  VARIABLE WIDTH WATER ESM'T
- $\langle E \rangle$  5' WIDE ELECTRICAL ESM'T TO EXPIRE UPON INCORPORATION INTO FUTURE PLATTING
- (A) EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C. DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304 CITY SHAVANO PARK STATE TEXAS ZIP 78231 PHONE # (210) 405-0195 EMAIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.COM SAWS BLOCK MAP # 124530, 124532 TOTAL EDU'S 118 TOTAL ACREAGE 28.89 AC 8" - 5,175 LF TOTAL LINEAR FOOTAGE OF PIPE: <u>15" - 33 LF</u> PLAT NO. LAND-PLAT-22-11800364 
 NUMBER OF LOTS:
 118
 SAWS JOB NO.
 22-1643

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![](_page_19_Figure_27.jpeg)

![](_page_19_Figure_28.jpeg)

![](_page_19_Figure_29.jpeg)

- 1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AND TESTING THE SANITARY SEWER SYSTEM IN ACCORDANCE WITH 30 TAC 217 [AND 213.5 FOR PROJECTS IN THE ERZD], THE DESIGN PLANS AND SARA SPECIFICATIONS.
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- 11. DAMAGE TO EXISTING PAVEMENT SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST.
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- SURFACE. SCALE FACTO: 1.00013.

LIVE OAK SLOUGH-MEDINA RIVER WATERSHED SEWER: LOWER MEDINA SEWERSHED - DOS RIOS W.R.C.

DEVELOPER'S NAME: CENTURY LAND HOLDINGS II, LLC DEVELOPER'S ADDRESS: 3619 PAESANOS PARKWAY, #304

CITY \_\_\_\_\_\_SHAVANO PARK \_\_\_\_\_\_STATE \_\_TEXAS \_\_\_\_\_ZIP \_\_78231 PHONE # (210) 405-0195 EMAIL: RUDY.MUNOZ@CENTURYCOMMUNITIES.COM SAWS BLOCK MAP # 124530, 124532 TOTAL EDU'S 119 TOTAL ACREAGE 28.89 AC 
 NUMBER OF LOTS:
 119
 SAWS JOB NO.
 22-1643

14.CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING SAWS STANDARD SPECIFICATION 804 FOR EXCAVATION, TRENCHING AND BACKFILLING REQUIREMENTS AND STANDARD SPECIFICATION 812 FOR WATER/SEWER SEPARATION REQUIREMENTS.

- $\langle A \rangle$  10' G.E.T.CA. ESM'T
- $\langle B \rangle$  16' SANITARY SEWER ESM'T
- C OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- $\langle D \rangle$  VARIABLE WIDTH WATER ESM'T
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- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO
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- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

![](_page_20_Figure_23.jpeg)

# W.W.L. 'D' STA. 1+00 TO END

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		10.00 L.F. 8" S	DR-26 PVC @ 0.40	%
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W.W.L. 'E' STA. 1+00 TO END

W.W.L. 'F' STA.

![](_page_20_Figure_30.jpeg)

	LEG	END		
0 50 100	PROPOSED	EXISTING S	SANITARY SEWER MANHOLE	
DRIZONTAL SCALE 1" = 50' ERTICAL SCALE 1" = 5'		$ \begin{array}{c} - & EX \\ 8''WWL \\ - & EX & 16 \\ WI \\ \end{array} $	SANITARY SEWER LINE	JNIT 0364 E, & F PROF
	C/OO	c/oO	SANITARY SEWER LATERAL CLEAN OUT (INSTALL BY HOME BUILDER	DN L 180( <sup>JE</sup> 'D, AN &
	<b>⊕</b> ₀	$\oplus$	WATER VALVE SINGLE WATER SERVICE	VISI 22-1 ER LIN -00 PL
			DUAL WATER SERVICE	IBDI -AT- WATE TO 94
		⊂ ¢V	WATER METER GAS VALVE	S SU D-Pl ASTE 1+00
		G	GAS LINE STORM SEWER MANHOLE	MM LAN sta
A C3 (SAWS ITEM NO. 852)			CURB INLET POWER POLE	
A=1+00.00 WWL 'F' M=593.96 / IN (N)=585.55 (8")		Ц —Э	STREET LIGHT (100 WATT LE STREET LIGHT (250 WATT LE GUY WIRE	ED) ED)
/ IN (E)=585.65 (8") / OUT (SW)=585.45 (8")  3655916.07 2092695 19	OU	ou �	OVERHEAD ELECTRIC BENCHMARK	DATE
4.90 L.F. 8" SDR-26 PVC @ 0.40%				
	UNDER UTILITIE LOCATI	GROUND AND OVERHEAD ES ARE APPROXIMATE ONS ONLY. THE ACTOR SHALL DETERMINE	<b>E</b>	
MH E1 (SAW/S ITEM NO. 852)	THE EX EXISTIN BEGINN FULLY F	ACT LOCATION OF ALL IG UTILITIES PRIOR TO IING WORK AND SHALL BE RESPONSIBLE FOR ANY AND	Know what's below.	
STA=1+54.90 WWL 'F' RIM=594.61 INV IN (E)=585.97 (8")		CAUTION: CO		
→	Of FC HC PF	NE CALL AT 1-800-245-4545 48 HC DR UTILITY LINE LOCATE. CONTR DRIZONTAL AND VERTICAL LOCA RIOR TO CONSTRUCTION. ENGIN	DURS PRIOR TO CONSTRUCTION RACTOR SHALL VERIFY ATION OF ALL EXISTING UTILITIE IEER SHALL BE NOTIFIED	s DESCRIPT
	IM DE IN RE	MEDIATELY OF ANY SIGNIFICAN ESIGN CHANGES. EXISTING UTIL FORMATIONAL PURPOSES ONLY ESPONSIBILITY FOR THE ACCUR	IT DISCREPANCIES OR REQUIRE ITIES SHOWN HEREON ARE FOR 7. ENGINEER ASSUMES NO ACY OF THIS INFORMATION.	
	CONTRACTOR AND STRUCTURAL DESI SHALL REVIEW THE	NCH EXCAVATION SAFET /OR CONTRACTOR'S INDEPENDE GN/GEOTECHNICAL/ SAFETY/EQ ESE PLANS AND AVAILABLE GEO	Y PROTECTION ENTLY RETAINED EMPLOYEE OF UIPMENT CONSULTANT, IF ANY, ITECHNICAL INFORMATION AND	
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K:\SA199 Century Communities\0404C Timms Subdivision U8\426 Site Development Plans\DWG-Sheets\sh\_Existi User: jduran Last Modified: Oct. 13, 22 - 15:53

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K: \SA199 Century Communities\0404C Timms Subdivision U8\426 Site Development Plans\DWG-Sheets\sh\_P User: jduran Last Modified: Jan. 23, 23 - 13:25 Plot Date/Time: Jan. 23, 23 - 16:42:31

oncent	tration Table	PA_4			
entrate %	ed Flow	Chann	el Flow	Total	COMPOSITE 'C' VALUE CALCS
sc 70 ).4	16.13 5.2	1093	6 3.0	28.3	AREA A8-4 = (44.41AC * 0.77 + 16.95AC * 0.47) / 61.36AC = 0.69 AREA A8-5 = (30.85AC * 0.77 + 131.68AC * 0.47) / 162.53 AC = 0.53
1.1	16.13 2.5 16.12 2.5	929	6 2.6	23.0	NOTE: 0.77 USED FOR "CLOSELY BUILT RESIDENTIAL AREAS WITH SLOPES 1%-3%"
y. 1 3.1	10.13         0.0           16.13         0.0	4297	0         2.8           6         11.9	16.2 29.4	0.47 USED FOR "CULTIVATED OR RANGE AREAS WITH SLOPES 1%-3%"
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20 78	6.45 7.17	32.05 24.58	43.90 33.73	54.44 41.88	
94 09	8.65 6.31	29.88 157.31	41.22 215.45	51.35 267.18	
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K: \{ User Last Plot

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Sh	eet Flow	(max le	ngth = 1	50')	Sh	allow Co	oncentra	ted Flow	<i>ı</i>	Ch	annel Fl	ow	Total
n	L <sub>t</sub> (ft)	P₂(in)	S <sub>t</sub> %	T <sub>t</sub> (min)	Unpaved/	L <sub>sc</sub> (ft)	S <sub>sc</sub> %	k	T <sub>sc</sub> (min)	L(ft)	V(ft/sec)	T <sub>ch</sub> (min)	T <sub>c</sub> (min)
0.24	150	3.91	1.6	19.5	Paved	0	2.1	20.32	0.0	1138	6	3.2	22.68
0.24	150	3.91	2.0	17.9	Unpaved	93	2.0	16.13	0.7	788	6	2.2	20.7
0.24	150	3.91	2.0	17.9	Unpaved	0	2.0	16.13	0.0	500	6	1.4	19.2
0.24	142	3.91	3.7	13.4	Unpaved	0	2.0	16.13	0.0	1021	6	2.8	16.2
0.24	150	3.91	2.1	17.5	Unpaved	286	0.3	16.13	5.4	1082	6	3.0	25.9
0.24	89	3.91	2.0	11.8	Paved	0	2.0	20.32	0.0	1574	6	4.4	16.1
0.24	120	3.91	2.0	14.9	Paved	0	2.0	20.32	0.0	2473	6	6.9	21.8
0.24	150	3.91	1.5	20.0	Unpaved	98	1.5	16.13	0.8	2199	6	6.1	26.9
0.24	150	3.91	2.0	17.9	Unpaved	256	1.1	16.13	2.5	929	6	2.6	23.0
0.24	150	3.91	2.0	17.9	Unpaved	114	2.0	16.13	0.8	959	6	2.7	21.4
0.24	150	3.91	2.0	17.9	Unpaved	91	2.0	16.13	0.7	369	6	1.0	19.5
0.24	150	3.91	1.2	20.0	Unpaved	269	1.2	16.13	2.5	449	6	1.2	23.8
0.24	150	3.91	2.0	17.9	Unpaved	153	2.0	16.13	1.1	957	6	2.7	21.6
0.24	89	3.91	2.0	11.8	Unpaved	0	2.0	16.13	0.0	2416	6	6.7	18.5
0.24	89	3.91	2.0	11.8	Unpaved	0	2.0	16.13	0.0	905	6	2.5	14.3
0.24	150	3.91	1.2	20.0	Unpaved	282	1.5	16.13	2.4	941	6	2.6	25.0
0.24	150	3.91	2.0	17.9	Unpaved	81	2.0	16.13	0.6	723	6	2.0	20.5
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0.24	150	3.91	13	20.0	Paved	1665	13	20.32	12.0	0	6	0.0	32.0
0.24	150	3.91	1.4	20.0	Paved	772	1.4	20.32	5.4	221	6	0.6	26.0
0.24	150	3.91	1.5	20.0	Paved	1276	1.5	20.32	8.5	0	6	0.0	28.5
0.24	150	3.91	0.7	20.0	Paved	1714	0.7	20.32	16.8	0	6	0.0	36.8
0.24	150	3.91	0.7	20.0	Paved	819	0.7	20.32	8.0	0	6	0.0	28.0
0.24	150	3.91	1.8	18.6	Paved	227	1.8	20.32	1.4	0	6	0.0	20.0
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	26.2	1782	6	5.0	51.1
0.24	150	3.91	1.9	18.2	Unpaved	58	2.0	16.13	0.4	219	6	0.6	19.3
0.24	150	3.91	2.0	17.9	Unpaved	81	2.0	16.13	0.6	723	6	2.0	20.5
0.24	150	3.91	1.2	20.0	Unpaved	282	1.5	16.13	2.4	941	6	2.6	25.0
0.24	150	3.91	1.2	20.0	Unpaved	282	1.5	16.13	2.4	941	6	2.6	25.0
0.24	150	3.91	1.2	20.0	Unpaved	282	1.5	16.13	2.4	1188	6	3.3	25.7
0.24	150	3.91	1.2	20.0	Unpaved	282	1.5	16.13	2.4	1188	6	3.3	25.7
0.24	150	3.91	1.2	20.0	Unpaved	282	1.5	16.13	2.4	2819	6	7.8	30.2
0.∠4 ∩ 24	150	<u>১.৬।</u> ২.০1	1.2	20.0	Daved	202	1.0	20.20	2.4	2019	6	1.0 	50.2
0.24 0.24	150	3.91	0.0	20.0	Paved	2200	0.0	20.32	20.2	3142	6	0.1 87	54.9 57.0
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	20.2	3142	6	87	54.9
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	26.2	3546	6	9.9	56.0
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	26.2	3546	6	9.9	56.0
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	26.2	3846	6	10.7	56.8
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	26.2	4513	6	12.5	58.7
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	26.2	4513	6	12.5	58.7
0.24	150	3.91	0.5	20.0	Paved	2255	0.5	20.32	26.2	4513	6	12.5	58.7
0.24	150	3.91	1.5	20.0	Paved	2255	0.5	20.32	26.2	5038	6	14.0	60.2
	SCS Me	thod. Ple	ase refer	to Storm	Water Man	agement	Plan (TIN	IMS SUB		I UNIT 3	PLAT NO	. 20-1180	0537)
	SCS Me	thod. Ple	ase refer	to Storm	Water Man	agement	Plan (TIN	IMS SUB	DIVISION	I UNIT 3	PLAT NO	. 20-11800	0537)
	SCS Me	thod. Ple	ase refer	to Storm	Water Man	agement	Plan (TIN	IMS SUB	DIVISION	I UNIT 3	PLAT NO	. 20-11800	0537)
	SCS Me	thod. Ple	ase refer	to Storm	Water Man	agement	Plan (TIN	IMS SUB	DIVISION	I UNIT 3	PLAT NO	. 20-1180	0537)
0.24	120	3.91	2.0	14.9	Paved	0	2.0	20.32	0.0	2473	6	6.9	21.8
0.24	150	3.91	1.5	20.0	Unpaved	98	1.5	16.13	0.8	2199	6	6.1	26.9
0.24	150	3.91	0.7	20.0	Paved	1125	0.7	20.32	11.0	1406	6	3.9	34.9
0.24	150	3.91	0.7	20.0	Paved	1714	0.7	20.32	16.8	1240	6	3.4	40.2
0.24	150	3.91	0.7	20.0	Paved	1714	0.7	20.32	16.8	1672	6	4.6	41.4
v.4.1					e q b .4 .2					e q o .4.3			n w 0.4
т,-	0.007(nL)0.0				т -	L				T -	L ch	.	T + T + T t zc ch
	(P   0.5 S 0.4 2 t					3 6 0 0 K S 0.5 s c					3 6 0 0 • A		

![](_page_24_Figure_0.jpeg)

nage Area		Coefficient		Intensity			Flow	
)	A (ac.)	с	l₅(in/hr)	l <sub>25</sub> (In/hr)	l <sub>100</sub> (in/hr)	$Q_{5}$ (ff <sup>3</sup> /s)	Q <sub>25</sub> (ft <sup>3</sup> /s)	$Q_{100}(ft^3/s)$
·	14.20	0.47	4.24	5.82	7 22	28.28	38.81	/8 19
	5 10	0.47	4.24	6.00	7.57	17 72	24.35	40.19
	<u> </u>	0.77	4.43	6.33	7.37	17.12	24.55	29.35
	7 71	0.77	4.00 5.03	6.94	8.65	29.88	<u> </u>	29.35 51.35
	11 29	0.77	3.96	5.43	6.74	34.46	41.22	58.59
	8 17	0.77	5.90	6.96	8.67	31.73	41.23	54.53
	14.23	0.77	4 32	5.93	7 37	47.36	45.17 65.02	80.76
	13.46	0.77	3.89	5 33	6.61	40.30	55.02	68.49
	7 58	0.77	4 21	5.78	7 17	24 58	33.73	41.88
	10.59	0.77	4.21	6.00	7.17	35.62	48.92	60.77
	5 29	0.77	4.57	6.28	7.40	18.61	25 59	31.81
	9.29	0.77	4.37 4.14	5.68	7.01	30.62	42.00	52 13
	18.02	0.77	4 34	5.00	7.00	60.22	82.69	102.10
	11.02	0.77	4.34	6.47	8.05	41 35	56.91	70.79
	4 99	0.77	5.37	7 45	9.00	20.64	28.61	35.69
	6.47	0.77	4 04	5 53	6.87	20.11	27.57	34.21
	6.93	0.77	4.46	6.13	7.62	23.82	32.73	40.68
	4.15	0.77	4.79	6.60	8.21	15.31	21.08	26.23
	20.08	0.77	4.00	5.48	6.80	61.80	84.71	105.10
	3.29	0.77	4.60	6.33	7.87	11.65	16.03	19.93
	17.07	0.77	4.30	5.90	7.33	56.52	77.59	96.36
	2.95	0.77	5.16	7.13	8.89	11.73	16.20	20.19
	15.39	0.77	3.56	4.88	6.05	42.20	57.79	71.65
	2.43	0.77	3.96	5.43	6.73	7.41	10.15	12.60
	8.91	0.77	3.77	5.17	6.41	25.90	35.47	43.99
	4.42	0.77	3.30	4.53	5.62	11.24	15.41	19.11
	1.51	0.77	3.81	5.22	6.47	4.43	6.07	7.53
	3.82	0.77	4.51	6.20	7.71	13.27	18.25	22.68
	84.20	0.77	2.71	3.74	4.66	175.77	242.51	301.91
	2.63	0.77	4.60	6.33	7.87	9.32	12.82	15.94
	0.93	0.77	4.46	0.13 5.52	7.62	23.82	52.73	40.68
	13.40	0.77	4.04	5.53	6.87	41.05	57.09	70.64
	13.40	0.77	3.04	5.05	6.77	41.00 56.39	77 29	95.89
	18.39	0.77	3.98	5.46	6.77	56.39	77.29	95.89
	29.81	0.77	3.67	5.02	6.23	84.17	115.28	142.95
	29.81	0.77	3.67	5.02	6.23	84.17	115.28	142.95
	114.01	0.77	2.58	3.57	4.45	226.40	313.26	390.62
	117.83	0.77	2.58	3.57	4.45	233.98	323.75	403.71
	117.83	0.77	2.58	3.57	4.45	233.98	323.75	403.71
11)	150.75	0.77	2.54	3.52	4.39	294.95	408.49	509.64
11)	150.75	0.77	2.54	3.52	4.39	294.95	408.49	509.64
11)	150.75	0.77	2.51	3.48	4.35	291.72	404.31	504.63
	161.34	0.77	2.45	3.40	4.25	304.65	422.94	528.38
	172.63	0.77	2.45	3.40	4.25	325.96	452.54	565.35
	180.21	0.77	2.45	3.40	4.25	340.28	472.41	590.18
	61.66	0.77	2.41	3.35	4.19	114.42	159.05	198.84
	SCS	6 Method. Please	e refer to Storm \	Nater Manageme	nt Plan (TIMMS SU	IBDIVISION UNIT	3 PLAT NO. 20-1	1800537)
	SCS	Method. Please	e refer to Storm \	Nater Manageme	nt Plan (TIMMS SU	IBDIVISION UNIT	3 PLAT NO. 20-1	1800537)
	SCS	Method. Please	e refer to Storm \	Nater Manageme	nt Plan (TIMMS SL	IBDIVISION UNIT	3 PLAT NO. 20-1	1800537)
	SCS	Method. Pleas	e refer to Storm \	Nater Manageme	nt Plan (TIMMS SU	IBDIVISION UNIT	3 PLAT NO. 20-1	1800537)
	14.23	0.77	4.32	5.93	7.37	47.36	65.02	80.76
	13.46	0.77	3.89	5.33	6.61	40.30	55.21	68.49
000.110	29.20	0.77	3.40	4.66	5.77	76.41	104.67	129.80
JS2+A18)	49.11	0.77	3.14	4.31	5.35	118.85	163.03	202.32
	20.82	U.//	3.09	4.24	5.20	135.20	100.55	230.32

![](_page_25_Figure_0.jpeg)

LOCATION OF EXISTING

UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE

CONTRACTOR SHALL DETERMINE

THE EXACT LOCATION OF ALL

SCALE IN FEET SCALE: 1"=50'

#### **GENERAL SPECIFICATIONS FOR SITE PREPARATION**

#### GENERAL DESCRIPTION

THE ITEM SHALL CONSIST OF ALL CLEARING AND PREPARATION OF LAND TO BE FILLED, FILLING OF THE LAND, SPREADING, COMPACTION TESTING AND INSPECTION OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES AND SLOPES AS SHOWN ON THE APPROVED PI ANS

#### SCARIFYING THE AREA TO BE FILLED

ALL ORGANIC MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED, AND SURFACE SHALL THEN BE DISKED OR SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES (6"), ALL SURFACE RUTS OR OTHER UNEVEN FEATURES WILL BE LEVELED PRIOR TO FIELD DENSITY TESTING.

#### COMPACTING THE AREA TO BE FILLED

FOLLOWING THE CLEARING AND DISKING OR SCARIFYING OF THE FILL AREA, IT SHALL BE BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS. THE AREA SHALL BE BROUGHT TO THE ADEQUATE MOISTURE CONTENT AND COMPACTED TYPICALLY) TO NOT LESS THAN NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT ASTM D 1557 COMPACTION PROCEDURE, OR 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT THD-TEX-113-E COMPACTION PROCEDURE.

#### FILL MATERIALS

THE MATERIALS USED SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES, SUCH AS TREES, BRUSH AND RUBBISH.

### DEPTH AND MIXING OF FILL LAYERS

THE SELECTED FILL MATERIAL SHALL BE PLACED IN LEVEL, UNIFORM LAYERS WHICH, WHEN COMPACTED, SHALL HAVE A DENSITY CONFORMING TO THE STIPULATED ABOVE. EACH LAYER SHALL BE THOROUGHLY MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. COMPACTED LAYER THICKNESS MAY VARY DEPENDING ON THE COMPACTION EQUIPMENT OF THE DEMONSTRATED CAPABILITY. THE MAXIMUM LOOSE DEPTH FOR ANY MATERIAL SHALL NOT EXCEED TWELVE INCHES (12").

#### <u>ROCK</u>

WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE SHALL BE AS APPROVED BY THE GEOTECHNICAL ENGINEER. NO LARGE ROCKS SHALL BE ALLOWED TO NEST AND ALL VOIDS MUST BE FILLED WITH SMALL STONES OR SOIL AND ADEQUATELY COMPACTED. NO LARGE ROCKS WILL BE PERMITTED WITHIN EIGHTEEN INCHES (18") OF THE FINISHED GRADE.

#### COMPACTION OF FILL LAYER

COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE FILL TO THE SPECIFIED DENSITY. COMPACTION SHALL BE ACCOMPLISHED WHILE THE FILL MATERIAL IS AT OR NEAR THE APPROPRIATE MOISTURE CONTENT. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE STRUCTURAL AREA (BENEATH PROPOSED STRUCTURES).

#### DENSITY TEST

FIELD DENSITY TESTS SHALL BE PERFORMED ON LAYERS OF FILL WHEN THE FILL IS BEING PLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MAXIMUM FILL HEIGHT BETWEEN DENSITY TESTING SHALL BE EIGHTEEN INCHES (18"). ALL TESTING SHALL BE REQUESTED BY THE CONTRACTOR TO MEET THE CONTRACTOR'S CONSTRUCTION SCHEDULE. CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THE TESTING LAB PERFORMS ALL TEST REQUIRED BY FHA

#### SPECIFICATION. LOT GRADING

ALL LOT GRADING SHALL BE IN ACCORDANCE WITH H.U.D.- F.H.A. DATA SHEET 79G.

#### GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE OWNER ALL NECESSARY DENSITY TESTS FOR FILL LOTS AS REQUIRED BY HUD SPECIFICATIONS.
- THE HOMEBUILDER WILL BE RESPONSIBLE FOR DETAILED GRADING ON EACH INDIVIDUAL LOT TO INCLUDE MINOR GRADING ON THE LOTS AND ANY SIDE OR BACK-LOT SWALES REQUIRED TO MEET THE DEPICTED DRAINAGE PATTERNS (SEE OVERALL MASTER DRAINAGE PLAN).
- HOMEBUILDER SHALL REFER TO THE APPROVED SUBDIVISION PLAT TO CONFIRM ALL BUILDING
- SETBACKS PRIOR TO ANY FOUNDATION WORK. AS SOON AS PRACTICAL HOMEBUILDER SHALL ESTABLISH VEGETATION (HYDROMULCH, SEEDING,
- SODDING, ETC...) TO PREVENT EROSION FROM OCCURRING. CONTRACTOR SHALL CONTACT ENGINEER REGARDING ANY QUESTIONS ON THE INTENT OF THIS
- PLAN. ELEVATIONS IN STREET ARE FINISHED GRADE AT PROPERTY LINE.

THE FINISHED ADJACENT GRADE.

- FINISHED FLOOR ELEVATIONS FOR EACH LOT SHALL BE A MINIMUM OF 8 INCHES ABOVE
- EXISTING TOPOGRAPHIC CONTOURS SHOWN BASED ON FIELD SURVEY PROVIDED BY D.A. MAWYER LAND SURVEYING (210-325-0858).

![](_page_25_Figure_30.jpeg)

![](_page_25_Figure_31.jpeg)

![](_page_25_Figure_32.jpeg)

![](_page_25_Figure_33.jpeg)

![](_page_25_Figure_34.jpeg)

![](_page_25_Figure_37.jpeg)

![](_page_26_Figure_0.jpeg)

![](_page_26_Figure_1.jpeg)

## **GENERAL SPECIFICATIONS FOR SITE PREPARATION**

## GENERAL DESCRIPTION

THE ITEM SHALL CONSIST OF ALL CLEARING AND PREPARATION OF LAND TO BE FILLED, FILLING OF THE LAND, SPREADING, COMPACTION TESTING AND INSPECTION OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES AND SLOPES AS SHOWN ON THE APPROVED PLANS.

#### SCARIFYING THE AREA TO BE FILLED

ALL ORGANIC MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED, AND SURFACE SHALL THEN BE DISKED OR SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES (6"), ALL SURFACE RUTS OR OTHER UNEVEN FEATURES WILL BE LEVELED PRIOR TO FIELD DENSITY TESTING.

#### COMPACTING THE AREA TO BE FILLED

FOLLOWING THE CLEARING AND DISKING OR SCARIFYING OF THE FILL AREA, IT SHALL BE BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS. THE AREA SHALL BE BROUGHT TO THE ADEQUATE MOISTURE CONTENT AND COMPACTED TYPICALLY) TO NOT LESS THAN NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT ASTM D 1557 COMPACTION PROCEDURE, OR 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT THD-TEX-113-E COMPACTION PROCEDURE.

#### FILL MATERIALS

THE MATERIALS USED SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES, SUCH AS TREES, BRUSH AND RUBBISH.

### DEPTH AND MIXING OF FILL LAYERS

THE SELECTED FILL MATERIAL SHALL BE PLACED IN LEVEL, UNIFORM LAYERS WHICH, WHEN COMPACTED, SHALL HAVE A DENSITY CONFORMING TO THE STIPULATED ABOVE. EACH LAYER SHALL BE THOROUGHLY MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. COMPACTED LAYER THICKNESS MAY VARY DEPENDING ON THE COMPACTION EQUIPMENT OF THE DEMONSTRATED CAPABILITY. THE MAXIMUM LOOSE DEPTH FOR ANY MATERIAL SHALL NOT EXCEED TWELVE INCHES (12").

#### <u>ROCK</u>

WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE SHALL BE AS APPROVED BY THE GEOTECHNICAL ENGINEER. NO LARGE ROCKS SHALL BE ALLOWED TO NEST AND ALL VOIDS MUST BE FILLED WITH SMALL STONES OR SOIL AND ADEQUATELY COMPACTED. NO LARGE ROCKS WILL BE PERMITTED WITHIN EIGHTEEN INCHES (18") OF THE FINISHED GRADE.

#### COMPACTION OF FILL LAYER

COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE FILL TO THE SPECIFIED DENSITY. COMPACTION SHALL BE ACCOMPLISHED WHILE THE FILL MATERIAL IS AT OR NEAR THE APPROPRIATE MOISTURE CONTENT. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE STRUCTURAL AREA (BENEATH PROPOSED STRUCTURES).

#### DENSITY TEST

FIELD DENSITY TESTS SHALL BE PERFORMED ON LAYERS OF FILL WHEN THE FILL IS BEING PLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MAXIMUM FILL HEIGHT BETWEEN DENSITY TESTING SHALL BE EIGHTEEN INCHES (18"). ALL TESTING SHALL BE REQUESTED BY THE CONTRACTOR TO MEET THE CONTRACTOR'S CONSTRUCTION SCHEDULE. SPECIFICATION.

#### LOT GRADING

ALL LOT GRADING SHALL BE IN ACCORDANCE WITH H.U.D.- F.H.A. DATA SHEET 79G.

#### GENERAL NOTES:

- CONTRACTOR SHALL PROVIDE OWNER ALL NECESSARY DENSITY TESTS FOR FILL LOTS AS REQUIRED BY HUD SPECIFICATIONS.
- THE HOMEBUILDER WILL BE RESPONSIBLE FOR DETAILED GRADING ON EACH INDIVIDUAL LOT TO INCLUDE MINOR GRADING ON THE LOTS AND ANY SIDE OR BACK-LOT SWALES REQUIRED TO MEET THE DEPICTED DRAINAGE PATTERNS (SEE OVERALL MASTER DRAINAGE PLAN).
- HOMEBUILDER SHALL REFER TO THE APPROVED SUBDIVISION PLAT TO CONFIRM ALL BUILDING SETBACKS PRIOR TO ANY FOUNDATION WORK.
- AS SOON AS PRACTICAL HOMEBUILDER SHALL ESTABLISH VEGETATION (HYDROMULCH, SEEDING,
- SODDING, ETC...) TO PREVENT EROSION FROM OCCURRING. CONTRACTOR SHALL CONTACT ENGINEER REGARDING ANY QUESTIONS ON THE INTENT OF THIS PLAN.
- ELEVATIONS IN STREET ARE FINISHED GRADE AT PROPERTY LINE.
- FINISHED FLOOR ELEVATIONS FOR EACH LOT SHALL BE A MINIMUM OF 8 INCHES ABOVE THE FINISHED ADJACENT GRADE.
- EXISTING TOPOGRAPHIC CONTOURS SHOWN BASED ON FIELD SURVEY PROVIDED BY D.A. MAWYER LAND SURVEYING (210-325-0858).

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND

ALL DAMAGES WHICH MIGHT OCCUR.

![](_page_26_Picture_31.jpeg)

![](_page_26_Figure_32.jpeg)

![](_page_26_Figure_33.jpeg)

![](_page_26_Figure_35.jpeg)

PROPOSED	EXISTING	
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![](_page_26_Figure_39.jpeg)

		SIDEWALK BOX.		
			CONTRACTOR TO TRANSITION CONCRETE CURB AND SIDEWALK TO MATCH TOP OF SIDEWALK BOX.	
		5.0'	0.5'	
	EXISTING DRAINAGE CHANNEL TIMMS SUBDIVISION UNIT 3 (LAND PLAT 20-11800537)	DRAIN 'A' SIDEWA		
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	(LAND PLAT 20-11600537)         (B-B)       Q25 (B-B)         (B-B)       Q25 (B-B)         (19)       2+70.19         (19)       2+80.19         35)       41.22         (0'       5.00'         (B-B)       Q25 (B-B)         (19)       2+70.19         (19)       2+80.19         35)       41.22         (0'       5.00'         (B-B)       Q25 (B-B)         (100)       5.00'         (B-B)       (B-B)         (10)       (B-B)         (11)       (B-B)         (12)       (B-B)         (10)       (B-B)         (B-B)       (B-B)         (B-D)       (B-B)         (B-B)       (B-B)         (B-B)       (B-B)         (B-B)       (B-B)         (B-B)       (B-B)         <	N.T.S S S S S S S S S S S S S S	STA: 2+86.36 END TRANSITION CHANNEL EWALK BOX CONSTRUCTION INVERT ELEV. = 581.50 2+70.19 HANNEL = 581.42 2+65.19 HANNEL = 581.42 2+65.19 HANNEL = 581.42 2+65.19 HANNEL = 581.42 2+65.19 HANNEL = 581.42 2+65.19 HANNEL = 581.42 2+65.19 HANNEL = 583.32 585.08 STA: 2+91.24 Sta: 2+91	SEED DR O.W.)
- The length of drop curt The head or depth of wa	SIDEWALK BOX 'A' INLET $\mathbf{Q} = CL(h)^{3/2}$ 8.3.2.aAmount of flow in CFS = $\mathbf{Q}$ (cfs)41.22 ft <sup>3</sup> /secAmount of flow in CFS = $\mathbf{Q}$ (cfs)41.22 ft <sup>3</sup> /secThe Weir coefficient 3.087 =C3.087b opening required in feet = $L_R$ 19.02 ftLength Provided = $L_P$ 20.00 ftvater at the opening in feet =h0.79 fth^(3/2)0.70 ft <sup>2</sup> 0.70 ft <sup>2</sup>			
	CHECK 41.22 ft <sup>3</sup> /sec		DRAIN 'A' STA 1+00 TO END	
	CHECK 41.22 ft <sup>3</sup> /sec		DRAIN 'A' STA 1+00 TO END	005
605	CHECK 41.22 ft <sup>3</sup> /sec		DRAIN 'A' STA 1+00 TO END	<u>605</u>
605 600 600	CHECK 41.22 ft <sup>3</sup> /sec	EARTHEN CHANNEL (A-A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/V25 =3.93(FTS) D100 =1.36/D25=1.21 (FT)	DRAIN 'A' STA 1+00 TO END         ORAIN 'A' STA 1+00 TO END	605
<u>605</u> 600 600 595	CHECK     41.22     ft³/sec	EARTHEN CHANNEL (A-A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/V25 =3.93(FTS) D100 =1.36/D25=1.21 (FT)	DRAIN 'A' STA 1+00 TO END         OPENDIAL         OPENDIAL </td <td>605 </td>	605 
605 600 600 595	CHECK     41.22     ft³/sec	EARTHEN CHANNEL (A-A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/V25 =3.93(FTS) D100 =1.36/D25=1.21 (FT)	DRAIN 'A' STA 1+00 TO END         OPENALIN 'A' STA 1+00 TO END         OPENALINA 'A' STA 1+00 TO END	605 
605 600  595  595  590	CHECK     41.22     ft³/sec	EARTHEN CHANNEL (A-A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/V25 =3.93(FTS) D100 =1.36/D25=1.21 (FT) EXISTING GROUND RIGHT	DRAIN 'A' STA 1+00 TO END         OPENDIN 'A' STA 1+00 TO END	605 
	CHECK     41.22 [ft³/sec	EARTHEN CHANNEL (A-A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/V25 =3.93(FTS) D100 =1.36/D25=1.21 (FT) EXISTING GROUND RIGHT EXISTING GROUND LEFT CHAINEL	DRAIN 'A' STA 1+00 TO END	605 
	CHECK 41.22 ft <sup>3</sup> /sec	EARTHEN CHANNEL (A-A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/V25 =3.93(FTS) D100 =1.36/D25=1.21 (FT) EXISTING GROUND RIGHT EXISTING GROUND LEFT EXISTING GROUND LEFT EXISTING GROUND LEFT	DRAIN 'A' STA 1+00 TO END	605 600 600 595 595 590 585 585
	CHECK     41.22 ft³/sec	EARTHEN CHANNEL (A-A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/V25 =3.93(FTS) D100 =1.38/D25=1.21 (FT) EXISTING GROUND RIGHT EXISTING GROUND LEFT EXISTING GROUND LEFT EXISTING GROUND LEFT EXISTING GROUND LEFT CHANNEL 25 YR WSE 24" TOE	DRAIN 'A' STA 1+00 TO END           CONCRETE CHANNEL (B-B)           Q100 =51.35/Q25 =41.22 (CFS)           V100 =5.80/V25 =5.45(FTS)           D100 =1.08/D25=0.96 (FT)           Image: State of the stat	605 600 595 595 590 585 580
605         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         600         6	CHECK 41.22 ft <sup>3</sup> /sec	EARTHEN CHANNEL (A.A) Q100 =51.35/Q25 =41.22 (CFS) V100 =4.18/25 =3.93(FTS) D100 =1.36/D25=1.21 (FT) EXISTING GROUND RIGHT EXISTING GROUND LEFT EXISTING GROUND LEFT EXISTING GROUND PROPOSED CHANNEL NVERT 25 YR WSE 24" TOE CHANNEL	DRAIN 'A' STA 1+00 TO END           CONCRETE CHANNEL (B-B)           Q100 =51.35/Q25 =41.22 (CFS)           V100 =5.80/V25 =5.45(FTS)           D100 =1.08/D25=0.96 (FT)           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9           9 <td></td>	
	CHECK 41.22 ft <sup>3</sup> /sec	EARTHEN CHANNEL (A-A) Q100 =5135(225 =41.22 (CFS) V100 = -136/D25=1.21 (FT) D100 = -1.36/D25=1.21 (FT) EXISTING GROUND RIGHT EXISTING GROUND LEFT EXISTING GROUND LEFT CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL CHANNEL	DRAIN 'A' STA 1+00 TO END           CONCRETE CHANNEL (B-B)           Q100 = 51.35/Q25 = 41.22 (CFs)           V100 = 58.0V/25 = 5.45(FTs)           D100 = 1.08/D25=0.96 (FT)           91997 V10 = 580/V25 = 5.45(FTs)           D100 = 1.08/D25=0.96 (FT)           91997 V10 = 580/V25 = 5.45(FTs)           D100 = 1.08/D25=0.96 (FT)           91997 V10 = 580/V25 = 5.45(FTs)           D100 = 1.08/D25=0.96 (FT)           91998 V10 = 580/V25 = 5.45(FTs)           D100 = 1.08/D25=0.96 (FT)           91998 V10 = 580/V25 = 5.45(FTs)           D100 = 1.08/D25=0.96 (FT)           91998 V10 = 580/V25	605 600 595 595 595 585 580 575 570
	CHECK         41.22 [tt²/sec           Image: State of the stat	EARTHEN CHANNEL (A-A) Q100 =51.35/025 =41.22 (CFS) V100 =4.18/025 =3.33(FTS) D100 =1.36/025 = 1.21 (FT) EXISTING GROUND RIGHT EXISTING GROUND LEFT EXISTING GROUND LEFT EXISTING GROUND LEFT EXISTING GROUND CHANNEL 25 YR WSE 24 TOE 25 YR WSE 24 TOE 25 YR WSE 26 Q Q Q E Q Q E Q Q E C Q Q E C C C C C C	DRAIN 'A' STA 1+00 TO END           Image: constraint of the state of the	

SA199 Centu : jduran Modified: Date/Time: K: \S/ User: Last Plot I

![](_page_27_Figure_2.jpeg)

![](_page_27_Figure_3.jpeg)

![](_page_27_Figure_4.jpeg)

![](_page_28_Figure_0.jpeg)

![](_page_29_Figure_0.jpeg)

![](_page_29_Figure_1.jpeg)

![](_page_30_Figure_0.jpeg)

![](_page_31_Figure_0.jpeg)

				•		EXI
LANDLOK® 435 turf reinforcement ma interlocking, multi-lobed polypropylene fib approximately 1/2 in by 1/2 in (13 mm	t (TRM) features X3® tea ers positioned between two by 13 mm) and mechania	chnology that consists biaxially oriented nets cally bound together e	s of a dense web of with mesh openings of very 2 in (51 mm) by			CH
parallel stitching with polypropylene threa	a. The TRIVI is designed to	accelerate seedling e	mergence, exhibit high			
resiliency, and possess strength and el	ongation properties to limi	it stretching in a satu	rated condition. Every			
component of LANDLOK® 435 is stabilize	d against chemical and ultr	raviolet degradation wh	ich are normally found			- +-
in a natural soil environment. Furthermore	, the TRM contains no biod	egradable components				
LANDLOK® 435 conforms to the proper	ty values listed below <sup>1</sup> and	l is manufactured at a	Propex facility having			
achieved ISO 9001:2008 certification. P	ropex performs internal Ma	anufacturing Quality Co	ntrol (MQC) tests that			
have been accredited by the Geosynthetic	Accreditation Institute – La	boratory Accreditation	Program (GAI-LAP).			
PROPERTY	TEST METHOD	ENGLISH	METRIC			
ORIGIN OF MATERIALS						
% U.S. Manufactured		100%	100%			
PHYSICAL						1
Mass/Unit Area <sup>2</sup>	ASTM D-6566	8.0 oz/yd <sup>2</sup>	271 g/m²			
Thickness <sup>2</sup>	ASTM D-6525	0.35 in	8.9 mm			
Light Penetration (% Passing) <sup>2</sup>	ASTM D-6567	40%	40%			
Color	Visual	Gr	een			
MECHANICAL						
Tensile Strength <sup>2</sup>	ASTM D-6818	225 x 175 lbs/ft	3.3 x 2.6 kN/m			
Elongation 2	ASTM D-6818	50%	50%		····	
Resiliency <sup>2</sup>	ASTM D-6524	80%	80%		<u></u>	
Flexibility 2	ASTM D-6575	0.015 in-lb	17,308 mg-cm			
		00%	00%			
	ASTM D-4355	80%	80%			
UV Resistance % Retained at 1,000 hrs		10 # /	2.7 m/aca			1
V Resistance % Retained at 1,000 hrs *	arre Orale	I Z IT/Sec				
Velocity (Vegetated) <sup>2,3</sup>	Large Scale	9 lb /ft2	282 Do			
Velocity (Vegetated) <sup>2,3</sup> Shear Stress (Vegetated) <sup>2,3</sup>	Large Scale Large Scale	8 lb/ft <sup>2</sup>	383 Pa			
UV Resistance % Retained at 1,000 hrs * PERFORMANCE Velocity (Vegetated) <sup>2,3</sup> Shear Stress (Vegetated) <sup>2,3</sup> Manning's n (Unvegetated) <sup>2,4</sup> Seedlingt Emergence <sup>2</sup>	Large Scale Large Scale Calculated	8 lb/ft <sup>2</sup> 0.025	383 Pa 0.025			
UV Resistance % Retained at 1,000 hrs <sup>2</sup> PERFORMANCE Velocity (Vegetated) <sup>2, 3</sup> Shear Stress (Vegetated) <sup>2, 3</sup> Manning's n (Unvegetated) <sup>2, 4</sup> Seedling Emergence <sup>2</sup>	Large Scale Large Scale Calculated ASTM D-7322	8 lb/ft <sup>2</sup> 0.025 273%	383 Pa 0.025 273%			
UV Resistance % Retained at 1,000 hrs * PERFORMANCE Velocity (Vegetated) <sup>2, 3</sup> Shear Stress (Vegetated) <sup>2, 4</sup> Manning's n (Unvegetated) <sup>2, 4</sup> Seedling Emergence <sup>2</sup> ROLL SIZES	Large Scale Large Scale Calculated ASTM D-7322	8 lb/ft <sup>2</sup> 0.025 273% 8 ft x 140 ft	383 Pa 0.025 273% 2.45 m x 42.7 m			

![](_page_31_Figure_4.jpeg)

![](_page_32_Figure_0.jpeg)

![](_page_32_Figure_1.jpeg)

User Last Plot

- 1. ALL HANDICAP RAMPS TO BE TYPE I UNLESS OTHERWISE NOTED, REFER TO SHEET 42.
- 2. ALL ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED.
- 3. WHERE SIDEWALK IS SEPARATED FROM THE CURB, THE SEPARATION DISTANCE SHALL BE A MINIMUM 3' BETWEEN THE BACK OF CURB AND EDGE OF SIDEWALK.
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- 5. STREETS AND DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS
- 6. REFER TO SHEET 42 FOR STREET AND PAVEMENT SECTION DETAIL, CONCRETE CURB DETAIL, AND SIDEWALK DETAIL.
- 7. CONTRACTOR TO FIELD VERIFY ALL MATCH EXISTING ELEVATIONS, SEWER MANHOLE INVERTS, STORM DRAIN INVERTS, AND ALL OTHER UTILITIES PRIOR TO UTILITY WORK AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.
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10

PCR STA. 13+02.41 RT. 20.00'\_\_/

PTR STA. 13+26.37 RT. 43.78

13+00

600

STA. 12+1

ITCH LINE

MA

A 10' G.E.T.CA. ESM'T

FOR CONSTRUCTION.

- $\langle B \rangle$  16' SANITARY SEWER ESM'T
- C OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- $\left< {
  m D} \right>$  variable width water esm't
- A EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- B OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

**CAUTION:** CONTRACTOR TO NOTIFY TEXAS ONE CALL AT 1-800-245-4545 48 HOURS PRIOR TO CONSTRUCTION FOR UTILITY LINE LOCATE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY SIGNIFICANT DISCREPANCIES OR REQUIRED DESIGN CHANGES. EXISTING UTILITIES SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS INFORMATION.

В	100			593.09	592.68 593.67	593.31 594.43	593.93
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580							
585				W			STA.13+02.41 (RT)
590				ATCH LINE (SEE SH			
595				E STA. 12+ HEET 33)	GRC		
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K:\SA199 Century Communities\0404C Timms Subdivision U8\426 Site Development Plans\DWG-Sheets\sh\_Timms User: jduran Last Modified: Jul. 20, 22 - 09:54 Plot Date/Time: Oct. 25, 22 - 10:08:01

![](_page_33_Figure_21.jpeg)

TIMMS PKWY STA. 12+00.00 TO END

![](_page_33_Figure_23.jpeg)

V ION UNIT 2	50 25 HO VE LEG	30       25       0       50       100         30       25       0       50       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       100       100         1       1       1       1       100         1       1       1       1       1         1       1       1       1       1       1         1       1       1       1       1       1       1         1       1       1       1       1       1       1       1         1       1       1       1       1       1				
	G,E,T,CA         BSL         ESM'T.         LT.         RT.         EG CL         TC         ELEV	EXISTING GROUND RIGHT SIDEWALK (HOMEOWNER'S RESPONSIBILITY) SIDEWALK (DEVELOPER'S RESPONSIBILITY) GAS, ELECTRIC, TELEPHONE & CABLE TV EASEMENT BUILDING SETBACK LINE EASEMENT LEFT RIGHT WASHOUT CROWN WASHOUT CROWN WASHOUT FLOW ARROW EXISTING GRADE CENTER LINE TOP OF CURB PAVEMENT ELEVATION TYPE I ADA RAMPS	REVISIONS         NO.       DESCRIPTION       BY       DATE         NO.       DESCRIPTION       BY       DATE         NO.       DESCRIPTION       BY       DATE         NO.       DESCRIPTION       BY       DATE			
		610 605	DATE: 7/6/2022 DATE: 7/6/2022 DATE: 7/6/2022 DATE: 7/6/2022 DATE: 7/6/2022 DATE: 1M, JF DESIGNED BY: JM, JD DRAWN BY: JM, JD DRAWN BY: JM, JD DRAWN BY: JM, JF DRAWN BY: JM, JF JM, JF JM, JF JM, JF DRAWN BY: JM, JF DRAWN BY: JF DRAWN BY: JM, JF DRAWN BY: JF DRAWN BY: JF JF JF JF JF JF JF JF JF JF			
END CONSTRUCTION END CONSTRUCTION REMOVE BARRICADE POSTS & HEADER CURB CONTRACTOR SHALL VERIEY EXISTING STREET TIE-IN ELEVATIONS STA.20+00.97 EXISTING STREET TIE-IN ELEVATIONS STA.20+00.97 CONTRACTOR SHALL VERIEY EXISTING STREET TIE-IN ELEVATIONS STA.20+0.017 CONTRACTOR STREET TIE-IN ELEVATIONS STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.20+0.017 STA.2			ngineering, Inc. Phone 210.503.2700 op 410 Fax 210.503.2749 . Texas 78209 TBPE No. F-1386			
20+0 20+0 20+0 20+0 20+0 20+0 20+0 20+0		575	JOB NUMBER: SA199-0404C-426 SHEET NO. 344			

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- 10. A BEXAR COUNTY RIGHT OF WAY PERMIT MUST BE OBTAINED PRIOR TO WORKING IN EXISTING BEXAR COUNTY RIGHT OF WAY.

A 10' G.E.T.CA. ESM'T

- $\langle B \rangle$  16' SANITARY SEWER ESM'T
- C OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- $\left< D \right>$  VARIABLE WIDTH WATER ESM'T
- (VOL. 5729, PG 26, O.P.R.)
- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

UNPLATTED REMAINING PORITON OF A 89.64 ACRE TRACT HK FISCHER ROAD, LLC DOC. # 20210115786, O.P.R.

#### **CAUTION:** CONTRACTOR TO NOTIFY TEXAS ONE CALL AT 1-800-245-4545 48 HOURS PRIOR TO CONSTRUCTION FOR UTILITY LINE LOCATE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY SIGNIFICANT DISCREPANCIES OR REQUIRED DESIGN CHANGES. EXISTING UTILITIES SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS INFORMATION.

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![](_page_34_Figure_23.jpeg)

LAMAR PASS STA. 1+00.00 TO END

![](_page_34_Figure_25.jpeg)

![](_page_34_Figure_26.jpeg)

- 1. ALL HANDICAP RAMPS TO BE TYPE I UNLESS OTHERWISE NOTED, REFER TO SHEET 40.
- 2. ALL ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED.
- 3. WHERE SIDEWALK IS SEPARATED FROM THE CURB, THE SEPARATION DISTANCE SHALL BE A MINIMUM 3' BETWEEN THE BACK OF CURB AND EDGE OF SIDEWALK.
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A 10' G.E.T.CA. ESM'T

- B 16' SANITARY SEWER ESM'T
- C OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- $\left< {
  m D} \right>$  variable width water esm't
- A EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- B OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

56 ĺ15 14 ్షిం Z ASS 0.W.) PCR STA. 1+14.00 LT. -49.00' SEE DETAIL 'A' BEGIN WASHOUT ON SHEET 38 PTR STA. 1+49.00 LT. -14.00 , , MLL MILL BEGIN WASHOUT 58 1+00 K 2+00 2. TA \_\_\_\_ 59、 PTR STA. 1+52.72 RT. 14.00 BEGIN WASHOUT <u> 8 STA. 1+36.25 RT. 20.19</u> 61 ~60

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- 1. ALL HANDICAP RAMPS TO BE TYPE I UNLESS OTHERWISE NOTED, REFER TO SHEET 42.
- 2. ALL ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED.
- 3. WHERE SIDEWALK IS SEPARATED FROM THE CURB, THE SEPARATION DISTANCE SHALL BE A MINIMUM 3' BETWEEN THE BACK OF CURB AND EDGE OF SIDEWALK.
- 4. PROPOSED STREET LIGHTS SHALL BE LOCATED BEHIND THE BACK OF SIDEWALK AND INSTALLED PER THE CPS DESIGN.
- 5. STREETS AND DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- 6. REFER TO SHEET 42 FOR STREET AND PAVEMENT SECTION DETAIL, CONCRETE CURB DETAIL, AND SIDEWALK DETAIL.
- 7. CONTRACTOR TO FIELD VERIFY ALL MATCH EXISTING ELEVATIONS, SEWER MANHOLE INVERTS, STORM DRAIN INVERTS, AND ALL OTHER UTILITIES PRIOR TO UTILITY WORK AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.
- 8. CONTRACTOR IS TO MATCH EXISTING PAVEMENT, SIDEWALK, AND CURB ELEVATIONS.
- 9. THE LACK OF RIGHT OF WAY RETURN WILL NOT IMPEDE VEHICLE TURNING MOVEMENTS.
- 10. A BEXAR COUNTY RIGHT OF WAY PERMIT MUST BE OBTAINED PRIOR TO WORKING IN EXISTING BEXAR COUNTY RIGHT OF WAY.

 $\langle A \rangle$  10' G.E.T.CA. ESM'T

- $\langle B \rangle$  16' SANITARY SEWER ESM'T
- C OFF-LOT VARIABLE WIDTH UTILITY ESM'T TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- **(D)** VARIABLE WIDTH WATER ESM'T
- A EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO (B) EXPIRE UPON INCORPORATION INTO PLATTED R.O.W.
- (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

#### CAUTION: CONTRACTOR TO NOTIFY TEXAS ONE CALL AT 1-800-245-4545 48 HOURS PRIOR TO CONSTRUCTION FOR UTILITY LINE LOCATE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY SIGNIFICANT DISCREPANCIES OR REQUIRED DESIGN CHANGES. EXISTING UTILITIES SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS INFORMATION.

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![](_page_36_Figure_24.jpeg)

- 1. ALL HANDICAP RAMPS TO BE TYPE I UNLESS OTHERWISE NOTED, REFER TO SHEET 42.
- 2. ALL ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED.
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- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)

![](_page_37_Figure_18.jpeg)

![](_page_37_Figure_19.jpeg)

![](_page_37_Figure_20.jpeg)

#### CAUTION: CONTRACTOR TO NOTIFY TEXAS ONE CALL AT 1-800-245-4545 48 HOURS PRIOR TO CONSTRUCTION FOR UTILITY LINE LOCATE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY SIGNIFICANT DISCREPANCIES OR REQUIRED DESIGN CHANGES. EXISTING UTILITIES SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS INFORMATION.

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![](_page_38_Figure_3.jpeg)

- C 100' SANITARY SEWER EASEMENT (VOL 15591, PG 1531-1537 O.P.R.B.C.)
- B OFF-LOT VARIABLE WIDTH DRAINAGE EASEMENT TO EXPIRE UPON INCORPORATION INTO PLATTED R.O.W. (10.77 AC PERMEABLE) (LAND PLAT 20-11800537)
- A EXISTING 135' C.P.S.B.S.A. EASEMENT (VOL. 5729, PG 26, O.P.R.)
- $\langle D \rangle$  VARIABLE WIDTH WATER ESM'T
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- $\langle B \rangle$  16' SANITARY SEWER ESM'T

- A 10' G.E.T.CA. ESM'T

- 8. CONTRACTOR IS TO MATCH EXISTING PAVEMENT, SIDEWALK, AND CURB ELEVATIONS. 9. THE LACK OF RIGHT OF WAY RETURN WILL NOT IMPEDE VEHICLE TURNING MOVEMENTS.
- **GENERAL NOTES:**

FOR CONSTRUCTION.

CURB AND EDGE OF SIDEWALK.

- 1. ALL HANDICAP RAMPS TO BE TYPE I UNLESS OTHERWISE NOTED, REFER TO SHEET 42.

- 2. ALL ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED.

![](_page_38_Figure_50.jpeg)

![](_page_39_Figure_0.jpeg)

![](_page_39_Figure_3.jpeg)

SHEETS

![](_page_40_Figure_0.jpeg)

![](_page_40_Picture_2.jpeg)

![](_page_40_Figure_3.jpeg)

- 1. THE RESULTS OF OUR LABORATORY TESTING AND ENGINEERING EVALUATION INDICATE THAT THE UNDERLYING SHALLOW CLAYS ARE MODERATELY PLASTIC TO HIGHLY PLASTIC IN CHARACTER. POTENTIAL VERTICAL MOVEMENT ON THE ORDER OF 2 1/2 TO 4 INCHES IS ESTIMATED AT EXISTING GRADE ELEVATION AND 2 TO 3 INCHES IS ESTIMATED AT THE ANTICIPATED SUBGRADE ELEVATION.
- 2. SUBGRADE PLASTICITY INDEX VALUES GREATER THAN 20 ARE ANTICIPATED.
- 3. PAVEMENT SECTION RECOMMENDATIONS ARE BASED ON THE DESIGN CBR VALUE OF 3.0 AND THE INPUT PARAMETERS. THE PAVEMENT CAN EXPERIENCE CRACKING AND DEFORMATION DUE TO SHRINKAGE AND SWELLING CHARACTERISTICS OF THE SOILS AS DESCRIBED IN THE VERTICAL MOVEMENTS SECTION OF THIS REPORT.
- 4. CUT AND FILL INFORMATION IS NOT AVAILABLE AT THIS TIME. ANTICIPATED POTENTIAL VERTICAL MOVEMENTS AND RECOMMENDED PAVEMENT SECTIONS SHOULD BE RE-EVALUATED AFTER CUT AND FILL INFORMATION IS MADE AVAILABLE.
- 5. RECOMMEND STABILIZING 6 OR 8 INCHES OF SUBGRADE SOILS.
- 6. LOCAL A AND LOCAL B TYPE STREET RECOMMENDATIONS ARE PRESENTED.
- 7. INPUT PARAMETERS ARE SHOWN IN TABLE NO. 3 (SUMMARY TABLE A). PLEASE CALL US TO PROVIDE PAVEMENT RECOMMENDATIONS, IF NEEDED, FOR DIFFERENT INPUT VALUES.
- 8. IF REPETITIVE TRUCK OR HEAVY TRUCK TRAFFIC IS ANTICIPATED, PLEASE CONTACT US FOR REVISED PAVEMENT RECOMMENDATIONS.

#### NOTES FROM INTEC GEOTECH REPORT No. S221091

#### SUBGRADE NOTES 1. SANDY CLAY SUBGRADES WITH PLASTICITY INDEX VALUES GREATER

THAN 20 ARE ANTICIPATED. 2. LIME OR CEMENT STABILIZING THE SUBGRADE TO A DEPTH OF 6 OR 8 INCHES. WE RECOMMEND LIME APPLICATION RATE OF 6 PERCENT -

FOR 6-INCH DEPTH OF TREATMENT – 31 LBS PER SQ YARD AND 3. FOR 8-INCH DEPTH OF TREATMENT – 41 LBS PER SQ YARD. THE FINAL CUT SUBGRADE SOILS SHOULD BE TESTED FOR SOLUBLE SULFATE CONTENT PRIOR TO TREATMENT. 5. IF FILL IS USED TO RAISE THE GRADE, THE APPROVED FILL MATERIAL SHOULD HAVE A MINIMUM CBR VALUE OF 3.0 AND A MAXIMUM PLASTICITY INDEX VALUE OF 40. THE LIME APPLICATION RATE SHOULD BE RE-EVALUATED FOR THE FILL MATERIAL AND THE SOIL SULFATE CONTENT SHOULD BE TESTED. THE MATERIAL SHOULD BE PLACED AS PER APPLICABLE

CITY GUIDELINES. 6. CEMENT APPLICATION RATES SHOULD BE DETERMINED AT THE TIME OF CONSTRUCTION. THE SUBGRADE, PRIOR TO PLACEMENT OF FILL, SHOULD BE PROOF ROLLED TO IDENTIFY WEAK AREAS. ANY IDENTIFIED

#### CONSTRUCTION VERIFICATION NOTES:

WEAK AREAS SHOULD BE RECOMPACTED.

FOR CONSTRUCTION VERIFICATION THE FOLLOWING SHALL BE CONDUCTED IN THE FIELD:

- 1. AFTER MIXING THE SOIL-LIME MIXTURE SHALL MELLOW FOR A PERIOD OF 2 TO THREE (2-3)
- DAYS. MAINTAIN MOISTURE DURING MELLOWING. 2. AFTER MELLOWING AND FINAL MIXING, THE PULVERIZATION SHALL BE CHECKED USING THE FOLLOWING CRITERIA (REMOVE NON-SLAKING AGGREGATES RETAINED ON THE 3/4" SEIVE FROM SAMPLE)
- 2.1. MINIMUM PASSING 1<sup>3</sup>/<sub>4</sub>" SIEVE: 100% 2.2. MINIMUM PASSING <sup>3</sup>/<sub>4</sub>" SIEVE: 85%
- 2.3. MINIMUM PASSING NO. 4 SIEVE: 60% 3. SAMPLE SOIL-LIME MIXTURE FOR DETERMINATION OF MAXIMUM DRY DENSITY (MDD), IN THE LABORATORY, MOLD SPECIMENS TO 95% OF MDD AT OPTIMUM MOISTURE CONTENT AND VERIFY USC TO BE AT LEAST 160 PSI IN ACCORDANCE WITH PROCEDURE OUTLINED ABOVE FOR MIXTURE DESIGN.
- 4. COMPACT AND CHECK FIELD DENSITY (MINIMUM OF 95% OF MDD REQUIRED). 5. CURE FOR AN ADDITIONAL 2 TO 5 DAYS (TOTAL MELLOWING AND CURING TIME SHOULD TOTAL AT LEAST 5 DAYS).
- 6. VERIFY DEPTH OF LIME STABILIZED LAYER TO DEPTH AS NOTED ON PLAN TO WITHIN +/- 1.0 INCH.

#### GEOGRID

- 1. ONE LAYER OF GEOGRID, (CITY OF SAN ANTONIO:MEETING TXDOT DMS 6240 TYPE 2 GUIDELINES), INSTALLED ON TOP OF COMPACTED SUBGRADE AS PER MANUFACTURER'S GUIDELINES.

- FILL MATERIAL
- 1. FILL USED TO RAISE THE GRADE APPROVED FILL MATERIAL FREE SHOULD HAVE A MINIMUM CBR VALUE OF 3.0 AND A MAXIMUM PLASTICITY INDEX VALUE OF 40. LIME APPLICATION RATES SHOULD BE RE-EVALUATED AND TESTED FOR SULFATE CONTENT PRIOR TO USE OF THE FILL MATERIAL.
- -2. THE FILL MATERIAL SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER, FREE OF DELETERIOUS MATERIAL, AND THE GRAVEL SIZE SHOULD NOT EXCEED 3 INCHES IN SIZE. THE MATERIAL SHOULD BE PLACED AND COMPACTED AS PER APPLICABLE CITY/ COUNTY GUIDELINES.

SUBGRADE VERIFICATION

- 1. AT THE TIME OF CONSTRUCTION, THE FINAL PAVEMENT SUBGRADE SHOULD BE OBSERVED AND DELINEATED / VERIFIED BY A REPRESENTATIVE OF INTEC.

PAVEMENT SECTION TABLE	
STRUCTURAL NUMBER (NOTE 2)	LOCAL TYPE A = 2.55 LOCAL TYPE B = 4.41
HOT MIX ASPHALT CONCRETE TYPE "D" DEPTH	LOCAL TYPE A = 2.0" LOCAL TYPE B = 3.0"
AGGREGATE BASE DEPTH	LOCAL TYPE A = 8.5" LOCAL TYPE B = 17.5"
BASE DEPTH UNDER CURB	LOCAL TYPE A = 6.0" LOCAL TYPE B = 7.5"
LIME OR CEMENT STABILIZED SUBGRADE (SEE NOTE 4)	LOCAL TYPE A = 6" LOCAL TYPE B = 8"

![](_page_40_Figure_34.jpeg)

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SHEETS

![](_page_41_Figure_0.jpeg)

![](_page_42_Figure_0.jpeg)

K: \{ User Last Plot

![](_page_43_Figure_0.jpeg)

SWPPP MODIFICATIONS							
DATE	SIGNATURE	MODIFICATIONS					

![](_page_44_Figure_1.jpeg)

DRAIN TO SEDIMENT TRAPPING DEVICE

2" x 10" TREATED TIMBER PLANK

DRAINAGE - IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE 6 TO 8 INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE. FABRIC - PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

50' MINIMUM

- TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
- METHODS MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN CONDITION WHICH WILL PREVENT

- WIDTH MINIMUM WIDTH SHALL BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.

A. SILT FENCE

SEEPING UNDER FENCE

USED FOR SILT FÉNCES.

2. LENGTH - AT LEAST 50 FEET

THICKNESS - MINIMUM 8 INCHES

B. TRIANGULAR SEDIMENT FILTER DIKE

ABUTTING THE ADJACENT SECTIONS.

C. TEMPORARY CONSTRUCTION ENTRANCE/EXIT

AGGREGATE SIZE - 4 TO 8 INCHES WASHED, COARSE STONE

DRAIN TO SEDIMENT TRAPPING DEVICE

- WASHING WHEN NECESSARY, IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM 4 INCH DIAMETER WASHED STONE OR COMMERCIAL RACK SHALL BE INSTALLED WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED

FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR YBAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM NOMINAL WEIGHT 1.25 LB/FT<sup>2</sup>, AND BRINDELL HARDNESS EXCEEDING 140.

STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 1-

THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM

THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL

SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

INSPECT ALL FENDING WEEKLY, AND AFTER ANY RAINFALL. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES. REPLACE ANY TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.

THE DIKE STRUCTURE SHALL BE CONSTRUCTED OF 6" X 6", 6 GAUGE WELDED WIRE MESH, 18 INCHES PER SIDE, AND WRAPPED WITH GEOTEXTILE FABRIC THE SAME COMPOSITION AS THAT

FILTER FABRIC SHOULD LAP OVER ENDS SIX (6) INCHES TO COVER DIKE TO DIKE JUNCTION; EACH JUNCTION SHOULD BE SECURED BY SHOAT RINGS.

POSITION DIKE PARALLEL TO THE CONTOURS, WITH THE END OF EACH SECTION CLOSELY

FASTENING - THE FABRIC SKIRT MAY BE TOED- IN WITH 6 INCHES OF COMPACTED MATERIAL.

OR 12 INCHES OF THE FABRIC SKIRT SHOULD EXTEND UPHILL AND BE SECURED WITH A MINIMUM OF 3 INCHES OF OPEN GRADED ROCK, OR WITH STAPLES OR NAILS. IF THESE TWO

TRIANGULAR SEDIMENT FILTER DIKES SHOULD BE INSTALLED ACROSS EXPOSED SLOPES DURING CONSTRUCTION WITH ENDS OF THE DIKE TIED INTO EXISTING GRADES TO PREVENT FAILURE AND SHOULD INTERCEPT NO MORE THAN ONE ACRE OF RUNOFF.

WHEN MOVED TO ALLOW VEHICULAR ACCESS, THE DIKES SHOULD BE REINSTALLED AS SOON AS POSSIBLE, BUT ALWAYS AT THE END OF THE WORKDAY.

INSPECTION SHOULD BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR. INSPECT AND REALIGN DIKES AS NEEDED TO PREVENT GAPS BETWEEN SECTIONS.

ACCUMULATED SILT SHOULD BE REMOVED AFTER EACH RAINFALL, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

OPTIONS ARE NOT FEASIBLE THE DIKE STRUCTURE MAY BE TRENCHED IN 4 INCHES.

WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6 FEET.

- - WHEN THE SILT REACHES 6 INCHES, THE ACCUMULATED SILT SHOULD BE REMOVED AND DISPOSED OF AT AN APPROVED SITE IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

DRAIN TO SEDIMENT TRAPPING DEVICE

- OF HEIGHT, AN ADDITIONAL SANDBAG MUST BE ADDED TO EACH ROW WIDTH. THE SAND BAG BERM SHOULD BE INSPECTED WEEKLY AND AFTER EACH RAIN. THE SANDBAGS SHOULD BE RESHAPED OR REPLACED AS NEEDED DURING INSPECTION.
- THE BASE OF THE BERM SHOULD HAVE AT LEAST 3 SANDBAGS. THESE CAN BE REDUCED TO 2 AND 1 BAG IN THE SECOND AND THIRD ROWS RESPECTIVELY. FOR EACH ADDITIONAL 6 INCHES

- SEE NOTE :

2" x 8" TREATED TIMBERS NAILED ONTO ABUTTED ENDS OF WOOD SHEETS

8 PENNY NAILS @ 1'ON CENTER

SECTION G-G

SCALE : 1" = 5'

- SANDBAGS SHOULD BE STACKED IN AT LEAST THREE ROWS ABUTTING EACH OTHER, AND IN STAGGERED ARRANGEMENT.
- 4. RUNOFF WATER SHOULD FLOW OVER THE TOPS OF THE SANDBAGS OR THROUGH 4-INCH DIAMETER PVC PIPES EMBEDDED BELOW THE TOP LAYER OF BAGS AS SHOWN.
- THE BERM SHOULD BE SIZED AS SHOWN IN THE PLANS BUT SHOULD HAVE A MINIMUM WIDTH OF 48 INCHES MEASURED AT THE BOTTOM OF THE BERM AND 16 INCHES MEASURED AT THE TOP OF THE BERM.
- 10 SIEVE. THE FILLED BAG SHOULD HAVE AN APPROXIMATE WEIGHT OF 40 POUNDS. 2. THE BERM SHOULD BE A MINIMUM HEIGHT OF 18 INCHES, MEASURED FROM THE TOP OF THE EXISTING GROUND AT THE UPSLOPE TOE TO THE TOP OF THE BERM.
- F. SANDBAG BERMS THE BAG LENGTH SHOULD BE 24 TO 30 INCHES, WIDTH SHOULD BE 16 TO 18 INCHES AND THICKNESS SHOULD BE 6 TO 8 INCHES. (3) SANDBAGS SHOULD BE FILLED WITH COARSE GRADE SAND, FREE FROM DELETERIOUS MATERIAL ALL SAND SHOULD PASS THROUGH A NO.
- 9. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.
- REPAIR ANY LOOSE WIRE SHEATHING. THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC
- 7. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT WILL NOT CAUSE ANY ADDITIONAL SILTATION.
- 6. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.
- UPON. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE OR AS NEAR AS POSSIBLE. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL
- 4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED
- NOT LESS THAN 18".
- 3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM (FIGURE 1-28), TO A HEIGHT
- LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE. THE SHEATHING SHOULD BE 20 GAUGE WOVEN WIRE MESH WITH 1 INCH OPENINGS. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER.
- EACH WORK DAY E. ROCK BERMS
- INSPECTION MUST BE MADE AFTER EACH RAIN EVENT TO LOCATE AND REPAIR ANY DAMAGE TO THE CHANNEL OR TO CLEAR DEBRIS OR OTHER OBSTRUCTIONS SO AS NOT TO DIMINISH FLOW CAPACITY. DAMAGES WHICH RESULT FROM NORMAL CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT THE END OF EACH WORK DAY.
- 8. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE DISPOSED OF IN AN APPROPRIATE SPOILS SITE.
- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
- INTERCEPTOR SWALES MUST BE STABILIZED IMMEDIATELY UPON EXCAVATION SO AS NOT TO CONTRIBUTE TO THE EROSION PROBLEM THEY ARE ADDRESSING.
- 5. SWALES MUST MAINTAIN POSITIVE GRADE TO AN ACCEPTABLE OUTLET.
- 4. MINIMUM DESIGN CHANNEL FREEBOARD SHALL BE 6 INCHES
- 3. SIDE SLOPES OF THE SWALE SHALL BE 3:1 OR FLATTER.
- 2. THE MINIMUM BOTTOM WIDTH OF THE SWALE SHALL BE 2 FEET.
- 1. MAXIMUM DEPTH OF FLOW IN THE SWALE SHALL BE 1 FOOT.
- D. INTERCEPTOR SWALE

#### G. STONE OUTLET SEDIMENT TRAP

- 1. ALL AGGREGATE SHOULD BE AT LEAST 3 INCHES IN DIAMETER AND SHOULD NOT EXCEED A VOLUME OF 0.5 CUBIC
- EARTH EMBANKMENT: PLACE FILL MATERIAL IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE THE OPTIMUM MOISTURE CONTENT OF THE MATERIAL. COMPACT EACH LAYER TO 95 PERCENT STANDARD PROCTOR DENSITY. DO NOT PLACE MATERIAL ON SURFACES THAT ARE MUDDY OR FROZEN. SIDE SLOPES FOR THE EMBANKMENT ARE TO BE 3:1. THE MINIMUM WIDTH OF THE EMBANKMENT SHOULD BE 3 FEET.
- A GAP IS TO BE LEFT IN THE EMBANKMENT IN THE LOCATION WHERE THE NATURAL CONFLUENCE OF RUNOFF CROSSES THE EMBANKMENT LINE. THE GAP IS TO HAVE A WIDTH IN FEET EQUAL TO 6 TIMES THE DRAINAGE AREA IN ACRES
- GEOTEXTILE COVERED ROCK CORE: A CORE OF FILTER STONE HAVING A MINIMUM HEIGHT OF 1.5 FEET AND A MINIMUM WIDTH AT THE BASE OF 3 FEET SHOULD BE PLACED ACROSS THE OPENING OF THE EARTH EMBANKMENT AND SHOULD BE COVERED BY GEOTEXTILE FABRIC WHICH SHOULD EXTEND A MINIMUM DISTANCE OF 2 FEET IN EITHER DIRECTION FROM THE BASE OF THE FILTER STONE CORE.
- FILTER STONE EMBANKMENT: FILTER STONE SHOULD BE PLACED OVER THE GEOTEXTILE AND IS TO HAVE A SIDE SLOPE WHICH MATCHES THAT OF THE EARTH EMBANKMENT OF 3:1 AND SHOULD COVER THE GEOTEXTILE/ROCK CORE A MINIMUM OF 6INCHES WHEN INSTALLATION IS COMPLETE. THE CREST OF THE OUTLET SHOULD BE AT LEAST 1 FOOT BELOW THE TOP OF THE EMBANKMENT.
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. REPAIR SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
- TRASH AND OTHER DEBRIS SHOULD BE REMOVED AFTER EACH RAINFALL TO PREVENT CLOGGING OF THE OUTLET STRUCTURE EDIMENT SHOULD BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT GRADE TO PREVENT RUNOFF HAS ACCUMULATED

#### H. SEDIMENT BASINS

TO HALF OF THE DESIGN DEPTH OF THE TRAP.

- 1. THE DRAINAGE AREA FOR A SEDIMENT BASIN SHALL BE LESS THAN 100 ACRES.
- THE BASIN SHOULD INCLUDE A PERMANENT STAKE TO INDICATE THE SEDIMENT LEVEL IN THE POOL AND MARKED TO INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME (NOT THE TOP OF THE STAKE). SEDIMENT SHALL BE REMOVED WHEN SEDIMENT REACHES 50% STORAGE CAPACITY.
- 3. PLACE FILL MATERIAL IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH. BEFORE COMPACTION, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE THE OPTIMUM MOISTURE CONTENT OF THE MATERIAL. COMPACT EACH LAYER TO 95 PERCENT STANDARD PROCTOR DENSITY. DO NOT PLACE MATERIAL ON SURFACES THAT ARE MUDDY OR FROZEN. SIDE SLOPES FOR THE EMBANKMENT SHOULD BE 3:1 (H:V). MINIMUM WIDTH OF THE EMBANKMENT AT THE TOP SHALL BE 8 FEET.
- AN EMERGENCY SPILLWAY SHOULD BE INSTALLED ADJACENT TO THE EMBANKMENT ON UNDISTURBED SOIL AND SHOULD BE SIZED TO CARRY THE FULL AMOUNT OF FLOW GENERATED BYA 10-YEAR, 3-HOUR STORM WITH 1 FOOT OF FREEBOARD LESS THE AMOUNT WHICH CAN BE CARRIED BY THE PRINCIPAL OUTLET CONTROL DEVICE. THE EMERGENCY SPILLWAY SHOULD BE LINED WITH RIPRAP AS SHOULD THE SWALE LEADING FROM THE SPILLWAY TO THE NORMAL WATERCOURSE AT THE BASE OF THE EMBANKMENT.
- 5. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. REPAIR SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR. TRASH AND OTHER DEBRIS SHOULD BE REMOVED AFTER EACH RAINFALL TO PREVENT CLOGGING OF THE OUTLET STRUCTURE.
- ACCUMULATED SILT SHOULD BE REMOVED AND THE BASIN SHOULD BE RE- GRADED TO ITS ORIGINAL DIMENSIONS AT SUCH POINT THAT THE CAPACITY OF THE IMPOUNDMENT HAS BEEN REDUCED TO 75% OF ITS ORIGINAL STORAGE CAPACITY.

#### ADDITIONAL NOTES:

- 1. UPON COMPLETION OF CONSTRUCTION ALL DISTURBED AREAS SHALL BE REVEGETATED TO 70% OF EXISTING IN ACCORDANCE WITH THE SWPPP AND TPDES REQUIREMENTS.
- 2. THIS SITE IS NOT LOCATED ADJACENT TO ANY SURFACE WATERS.
- 3. THIS SITE WILL NOT HAVE ANY LOCATIONS WHERE STORM WATER DISCHARGES DIRECTLY TO A SURFACE WATER BODY.

![](_page_44_Figure_92.jpeg)

![](_page_44_Figure_93.jpeg)

![](_page_44_Figure_94.jpeg)

![](_page_44_Figure_95.jpeg)