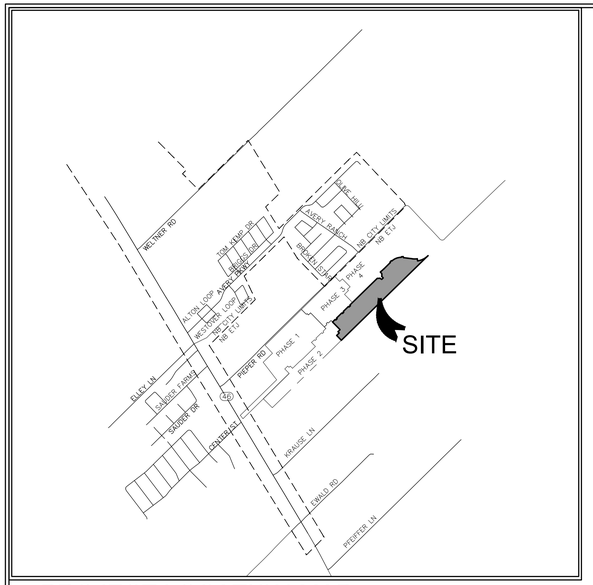


PROJECT LOCATION MAP SCALE: N.T.S.

PROJECT BENCHMARK

SITE TBM #1
SET 1/2" ROD W/ HMT CAP
N: 13788527.2038
E: 2270919.5126
ELEV: 589.4647

SITE TBM #2
SET 1/2" ROD W/ HMT CAP
N: 13792600.1325
E: 2277056.3673
ELEV: 633.5279

LEGAL DESCRIPTION

BEING 36.216 ACRES OF LAND SITUATED IN THE ANTONIO MARIA ESNAURIZAR SURVEY, ABSTRACT 20, LOCATED IN GUADALUPE COUNTY, TEXAS. BEING A PORTION OF A CALLED 99.104 ACRE TRACT, RECORDED IN DOCUMENT NO. 202099026776, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS.

PLEASE NOTE: NBU REQUIRES GPS POINTS FOR CERTAIN ELECTRIC, WATER AND WASTEWATER ATTRIBUTES, SOME OF WHICH MUST BE TAKEN PRIOR TO BACKFILL DURING CONSTRUCTION.

GPS POINTS SHALL BE REQUIRED FROM THE DEVELOPER'S CONTRACTOR OR ENGINEER. A MINIMUM OF THREE COORDINATE POINTS FOR GEOREFERENCING SHALL BE REQUIRED. THE WATER AND WASTEWATER GPS POINTS SHALL BE TO SURVEY GRADE. THE ELECTRIC GPS POINTS SHALL BE TO MAP GRADE.

WATER
VERTICAL BENDS AND EDGE OF STEEL CASING (IF APPLICABLE) PRIOR TO BACKFILL
HORIZONTAL BENDS PRIOR TO BACKFILL
TEES PRIOR TO BACKFILL
FITTINGS (REDUCERS AND COUPLINGS) PRIOR TO BACKFILL
FIRE HYDRANTS (TOP OF FLANGE)
VALVES
METERS (TOP CENTER OF BOX)
BLOW OFF ASSEMBLY
CORNER SLAB OF WATER TANK & GATE VALVE ON WATER TANK

WASTEWATER
MANHOLES
CLEANOUTS
CORNER SLAB OF LIFT STATION

ELECTRIC
POLES
TRANSFORMERS, BOTH ABOVE AND UNDERGROUND (FRONT LOCK)
PULL BOXES
STREET LIGHTS

COORDINATE GPS REQUIREMENTS WITH NBU INSPECTOR

GENERAL NOTES:

1. IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE-YEAR OF CITY APPROVAL FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID.
2. THE MOST CURRENT EDITIONS OF THE CITY OF NEW BRAUNFELS SPECIFICATIONS AND THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES SHALL BE FOLLOWED FOR ALL CONSTRUCTION EXCEPT AS AMENDED BY THE CITY OF NEW BRAUNFELS STANDARD DETAILS.
3. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF NEW BRAUNFELS MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER IN RECORD.
4. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE CITY OF NEW BRAUNFELS TO SET A PRE-CONSTRUCTION MEETING. A 48-HOUR ADVANCED NOTIFICATION IS REQUIRED FOR ALL INSPECTION AND MEETING REQUESTS.
   - 4.1 ALL INSPECTIONS ARE TO BE CALLED IN AT 830-221-4068 OR,
   - 4.2 FAXED IN AT 830-608-2117 OR,
   - 4.3 E-MAILED AT INSPECTIONS@NBTEXAS.ORG.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PLANS AND LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. IF THE NEED ARISES, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE ORDERED BY THE ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
6. DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE OFFSITE IMPACT OF CONSTRUCTION MUST BE COMPLETED AND IN PLACE PRIOR TO ADDING IMPERVIOUS COVER TO THE SITE.
7. THIS DEVELOPMENT IS A TYPE 3 DEVELOPMENT.
8. NO PORTION OF THE SUBDIVISION IS LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREA (100 YR. FLOOD), AS DEFINED BY THE GUADALUPE COUNTY, TEXAS, FIRM PANEL NUMBER 48187C0120F EFFECTIVE DATE NOVEMBER 2, 2007 AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
9. THIS PROJECT IS NOT LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE.
10. GAS UTILITIES ARE NOT INCLUDED IN THE CIVIL CONSTRUCTION PLANS. FINAL GAS UTILITY DSIGN SHALL BE APPROVED BY THE CITY FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

SPRINGS HILL WATER SUPPLY CORPORATION _____ Date

Note: The Springs Hill Water Supply Corporation (SHWSC) signature above indicates that SHWSC has reviewed this document for general conformance with SHWSC requirements. SHWSC assumes no responsibility for the completeness and/or accuracy of these documents. Responsibility for the engineering adequacy of the facilities depicted in this document lies solely with the Texas Licensed Professional Engineer whose seal and signature is affixed to this document.

PARKSIDE SUBDIVISION PHASE 5

NEW BRAUNFELS, TEXAS

CIVIL SITE CONSTRUCTION PLANS

LENNAR HOMES
100 NE LOOP 410, SUITE 1155
SAN ANTONIO, TEXAS 78216

REQUIRED PERMITS	NUMBER
1. CITY OF NEW BRAUNFELS	#
2. NEW BRAUNFELS UTILITIES	#
3. SPRING HILLS	#
4. GBRA	#

DECEMBER 2024

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF NEW BRAUNFELS MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.

Christopher P. Van Heerde, P.E.
Christopher P. Van Heerde
P.E. Registration No. 93047

PREPARED BY:

HMT
ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
HMTNB.COM
P(830)625-8555*F(830)625-8556
TBPE FIRM F-10961
TBPLS FIRM 1053600

WATER IS A PRECIOUS COMMODITY IN THE STATE OF TEXAS AND NEW BRAUNFELS UTILITIES (NBU) IS PASSIONATE ABOUT PROTECTING THE LOCAL RESOURCE. NBU'S CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ACQUIRING A FIRE HYDRANT METER SO THAT ALL WATER USED FOR CONSTRUCTION OR TESTING PURPOSES ARE PROPERLY ACCOUNTED FOR. NBU WILL NOT TOLERATE ANY WATER THEFT, REGARDLESS OF THE AMOUNT. IF WATER THEFT IS DISCOVERED NBU'S CONTRACTOR SHALL BE SUBJECT TO MONETARY PENALTIES, CRIMINAL CHARGES, AND STOPPAGE OF ALL CONSTRUCTION ACTIVITIES RELATED TO THE PROJECT. COSTS ASSOCIATED WITH ANY WORK STOPPAGE RESULTING FROM WATER THEFT SHALL BE AT THE FULL EXPENSE OF THE CONTRACTOR.

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CONSTRUCTION NOTES (2 OF 2)	C0.03
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SUBDIVISION PLAT (2 OF 3)	C0.05
SUBDIVISION PLAT (3 OF 3)	C0.06
EXISTING DRAINAGE AREA MAP	C1.01
PROPOSED&ULTIMATE DRAINAGE AREA MAP	C1.02
EROSION CONTROL PLAN (1 OF 3)	C2.01
EROSION CONTROL PLAN (2 OF 3)	C2.02
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EROSION DETAILS	C2.04
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BROKEN ARROW PLAN & PROFILE	C4.01
LOST CREEK & LEGENDS CREEK PLAN & PROFILE	C4.02
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PEAKSIDE CIR & SPITFIRE TRL PLAN & PROFILE	C4.04
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PEAKSIDE CIR & BLUFFDALE DR SAC PLAN & PROFILE	C4.13
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WATER TAP (2 OF 3)	C6.05
WATER TAP (3 OF 3)	C6.06
WATER DETAILS (1 OF 3)	C6.07
WATER DETAILS (2 OF 3)	C6.08
WATER DETAILS (3 OF 3)	C6.09
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OVERALL WASTEWATER (2 OF 3)	C7.02
OVERALL WASTEWATER (3 OF 3)	C7.03
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WASTEWATER LINE L PLAN & PROFILE	C7.07
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NOTE TO CONTRACTOR:

1. BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS' AND MATERIAL SUPPLIERS' KNOWLEDGE, ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.
2. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT EACH OF THE INDIVIDUAL UTILITIES FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.
3. ANY QUANTITIES PROVIDE BY HMT OR OWNER ON THE PLANS, OPINION OF PROBABLE COST, BID SUMMARIES, ETC. ARE FOR CURSORY USE ONLY. CONTRACTOR IS RESPONSIBLE FOR BIDDING SIGNED AND SEALED CONSTRUCTION PLANS. IF A DISCREPANCY EXIST, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY.
4. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE LOCATION AND ELEVATION OF ALL DOWNSTREAM CONNECTION POINTS PRIOR TO CONSTRUCTION. IF A DISCREPANCY EXIST, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY.
5. CONTRACTOR SHALL INSTALL ALL GRAVITY SEWER, GRAVITY STORM SEWER, CURBS AND PAVEMENT FROM THE MOST DOWNSTREAM POINT OF CONNECTION. IF IMPROVEMENTS ARE CONSTRUCTED FROM UPSTREAM TO DOWNSTREAM, THEN THE CONTRACTOR WILL TAKE FULL RISK AND LIABILITY OF ANY ISSUES THAT MIGHT ARISE FROM FLOWLINE ELEVATION DISCREPANCIES, UTILITY CONFLICTS, ETC.
6. CONTRACTOR IS RESPONSIBLE FOR THE STOCKPILING OF ANY EXCESS DIRT. ALL BIDS FROM CONTRACTOR SHOULD ACCOUNT FOR THE REMOVAL AND PLACEMENT OF ALL EARTHWORK TO INCLUDE STOCKPILING, EXPORT, IMPORT, ETC. IF A LOCATION OF PLACEMENT OF EXCESS DIRT IS NOT SHOWN ON THE PLANS, THEN CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY TO DETERMINE THE MOST SUITABLE STOCKPILE LOCATION.

PARKSIDE SUBDIVISION PHASE 5
CIVIL SITE CONSTRUCTION PLANS
HMT # 337.042

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\C0\337.042_COVER.dwg User: philpm Dec 06, 2024 - 12:00pm

CITY OF NEW BRAUNFELS GENERAL NOTES

ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT SHALL COMPLY WITH:

A. CURRENT CITY OF NEW BRAUNFELS CONSTRUCTION SPECIFICATIONS AND STANDARDS AS OF THE DATE OF THIS CONTRACT

B. THE MOST CURRENT EDITION OF TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES".

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST CURRENT TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES." ALONG WITH CURRENT CITY OF NEW BRAUNFELS AND GUADALUPE COUNTY SPECIFICATIONS. ANY DISCREPANCIES BETWEEN SPECIFICATIONS SHALL BE RESOLVED BY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, FEES, AND TAXES AREA AND GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.

ANY EXISTING OFF-SITE IMPROVEMENTS THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE OWNER OF THE EXISTING IMPROVEMENT AT THE CONTRACTOR'S EXPENSE. (NO SEPARATE PAY ITEM)

WORK COMPLETED BY THE CONTRACTOR WHICH HAS NOT RECEIVED A WORK ORDER OR CONSENT OF THE OWNER OR ENGINEER WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR.

CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PLACE ANY WASTE MATERIAL IN THE 100YR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.

BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE PROVIDING CONTINUOUS TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION.

CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.

WHEN MATCHING EXISTING PAVEMENTS, CURBS, DRIVES, AND WALKS, THEY SHALL BE SAW CUT FULL DEPTH AND REMOVED TO ALLOW FOR PROPOSED CONSTRUCTION. IF ANY EXISTING JOINT IS ENCOUNTERED, PRECAUTION SHALL BE TAKEN DURING REMOVAL OF CONCRETE SO AS NOT TO DAMAGE EXISTING DOWELS. ALL EXISTING DOWELS SHALL BE EXPOSED AND CLEANED.

ITEM OF WORK DESIGNATED "BY OTHERS" SHALL NOT BE CONSIDERED PART OF THIS CONTRACT.

ALL "COMPACTED SUBGRADE" SHALL CONSIST OF NATIVE MATERIAL SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES AND COMPACTED TO 95% DENSITY ACCORDING TO DENSITY TEST METHOD TEX-115E OR ACCORDING TO ASTM D-698 AND TESTED BY ASTM D-2922.

ALL "FLEXIBLE BASE" SHALL BE TYPE "A", GRADE 4, ACCORDING TO TXDOT ITEM 247, COMPACTED TO 95% MODIFIED DENSITY AT A MOISTURE CONTENT BETWEEN -2 AND +3 OF OPTIMUM PERCENT MOISTURE ACCORDING TO ASTM D-1557 (MODIFIED PROCTOR) AND TESTED BY ASTM D-2922.

ASPHALT PAVEMENT SHALL BE THE TYPE SPECIFIED ON THE PLANS AND ACCORDING TO TXDOT ITEM 340 "HOT MIX ASPHALT CONCRETE PAVEMENT".

PRIME COAT USING MC-30 AT A RATE OF 0.2 GALLONS PER SQUARE YARD SHALL BE PLACED OVER PREPARED BASE AT LEAST ONE DAY PRIOR TO LAYING ASPHALTIC CONCRETE PAVEMENT. ANY NECESSARY TACK COAT SHALL BE MC-30 AT 0.05 GALLONS PER SQUARE YARD. IT IS REQUIRED THAT BOTH THE PRIME COAT AND THE TACK COAT BE APPLIED AT THE TEMPERATURE SPECIFIED UNDER TXDOT ITEM 300.3.

CONCRETE SHALL BE CLASS "A" ACCORDING TO TXDOT ITEM 421 UNLESS OTHERWISE ON PLANS.

REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO TXDOT ITEM 440. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS EXCEPT WHEN REFERRING TO CLEARANCE.

ALL SAWED JOINTS SHALL BE SAWED WITHIN 24 HOURS OF POURING,

ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER.

ORDINARY COMPACTION CONTROL IS REQUIRED ON THIS PROJECT.

ALL ROLLING FOR COMPACTION OF ASPHALTIC CONCRETE PAVEMENT SHALL BE COMPLETED BEFORE THE MIXTURE TEMPERATURE DROPS BELOW 175 DEG. (F).

ALL FILL MATERIAL SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL.

CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO THE NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER AND HIS EMPLOYEES, PARTNERS, OFFICES, DIRECTORS, OR CONSULTANTS, HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.

ALL CMP (CORRUGATED METAL PIPE) USED ON THIS PROJECT SHALL HAVE A MANNING'S "N" VALUE OF 0.024., UNLESS OTHERWISE SHOWN ON PLANS.

CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTING PER CURRENT CITY OF NEW BRAUNFELS REQUIREMENTS. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ENGINEER AND OWNER RESERVE THE RIGHT TO HAVE THE CONTRACTOR REMOVE AND REPLACE ANY MATERIAL THAT WAS NOT TESTED OR FAILED TESTING. ALL COST ASSOCIATED WITH THE REMOVAL, REPLACEMENT AND TESTING SHALL BE PAID BY THE CONTRACTOR.

ALL PVC SLEEVES SHALL BE INSTALLED 3 FEET BELOW FINISHED GRADE AND ENDS SHALL BE MARKED SO THAT LOCATIONS OF SLEEVES CAN BE EASILY IDENTIFIED.

PRE-CONSTRUCTION CONFERENCE IS REQUIRED, ENGINEER WILL ARRANGE SUCH CONFERENCE IN COORDINATION WITH CITY OF NEW BRAUNFELS STREET INSPECTOR & NEW BRAUNFELS UTILITIES INSPECTOR. NO CONSTRUCTION MAY BEGIN PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.

CONTRACTOR SHALL COORDINATE WITH DRY UTILITY INSTALLERS AND SHARED TRENCHING SHALL BE UTILIZED. CUTTING THE STREETS AFTER COMPLETION BY DRY UTILITIES SHALL NOT BE ACCEPTABLE.

AS PER PLATTING ORDINANCE SECTION 118-38M.: WHEN ALL IMPROVEMENTS ARE FOUND TO BE CONSTRUCTED AND COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND WITH THE CITY'S STANDARDS, AND UPON RECEIPT OF ONE SET OF "RECORD DRAWINGS" PLANS, AND A DIGITAL COPY OF ALL PLANS (AUTOCAD 2000 MINIMUM) THE CITY ENGINEER SHALL ACCEPT SUCH IMPROVEMENTS FOR THE CITY OF NEW BRAUNFELS, SUBJECT TO THE GUARANTY OF MATERIAL AND WORKMANSHIP PROVISIONS IN THIS SECTION.

EROSION / SEDIMENTATION CONTROL

AT A MINIMUM, THESE CONTROLS SHALL CONSIST OF ROCK BERMS AND/OR SILT FENCES CONSTRUCTED PARALLEL TO AND DOWN GRADIENT FROM THE TRENCHES. THE ROCK BERM OR SILT FENCES SHALL BE INSTALLED IN A MANNER SUCH THAT ANY RAINFALL RUNOFF SHALL BE FILTERED. HAY BALES SHALL NOT BE USED FOR TEMPORARY EROSION AND SEDIMENTATION CONTROLS.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE MAINTAINED DURING CONSTRUCTION BY THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE CONTROLS WHEN VEGETATION IS ESTABLISHED AND THE CONSTRUCTION AREA IS STABILIZED (31 TAC 313.5 (C)(12)). ADDITIONAL PROTECTION MAY BE REQUIRED IF EXCESSIVE SOLIDS ARE BEING DISCHARGED FROM THE SITE.

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER/ENGINEER.

PLACEMENT OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION PLANS. ACTUAL LOCATIONS MAY VARY SLIGHTLY FROM THE PLANS, BUT WILL BE VERIFIED BY THE ENGINEER/INSPECTOR IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY SIGNIFICANT RAINFALL TO INSURE DISTURBANCE OF THE STRUCTURES HAS NOT OCCURRED. SEDIMENT DEPOSITED AFTER A RAINFALL SHALL BE REMOVED FROM THE SITE OR PLACED IN AN ENGINEER APPROVED DESIGNATED DISPOSAL AREA.

CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT NO EROSION CONTROL MEASURES BLOCK THE DRAINAGE SYSTEM FROM WORKING AS DESIGNED.

CITY OF NEW BRAUNFELS CONSTRUCTION NOTES — REVISED 02/2020

THESE NOTES MUST APPEAR ON THE COVER AND/OR "NOTES" SHEET OF ALL SUBDIVISION CONSTRUCTION PLANS AND ON COMMERCIAL PLANS WHERE APPLICABLE:

IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE-YEAR OF CITY APPROVAL FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID.

THE MOST CURRENT EDITIONS OF THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS AND THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES SHALL BE FOLLOWED FOR ALL CONSTRUCTION EXCEPT AS AMENDED BY THE CITY OF NEW BRAUNFELS STANDARD DETAILS.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF NEW BRAUNFELS MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE CITY OF NEW BRAUNFELS TO SCHEDULE A PRECONSTRUCTION MEETING.

FOR PUBLIC INFRASTRUCTURE PERMIT OR GRADING PERMIT PROJECTS:

- ☐ FOR INSPECTIONS, YOU MUST CALL BEFORE 12:00 P.M., 48 HOURS PRIOR TO YOUR INSPECTION REQUEST.
- ☐ EACH INSPECTION WILL BE ALLOTTED 1 HOUR UNLESS YOU REQUEST FOR MORE TIME.
- ☐ ONCE YOUR REQUEST HAS BEEN ACCEPTED, YOU WILL RECEIVE A CALL FROM THE CITY OF NEW BRAUNFELS INSPECTOR.

FOR COMMERCIAL PERMIT (CP) PROJECTS:

- ☐ ALL INSPECTIONS ARE TO BE CALLED IN AT 830-221-4068 OR,
- ☐ FAXED IN AT 830-608-2117 OR,
- ☐ E-MAILED AT INSPECTIONS@NBTEXAS.ORG.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL TEMPORARY AND PERMANENT TRAFFIC CONTROL DEVICES ARE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PLANS AND LATEST EDITION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. IF, IN THE OPINION OF THE 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. IF THE NEED ARISES, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE ORDERED BY THE ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.

A TXDOT TYPE II B-B BLUE REFLECTIVE RAISED PAVEMENT MARKER SHALL BE INSTALLED IN THE CENTER OF THE ROADWAY ADJACENT TO ALL FIRE HYDRANTS. IN LOCATIONS WHERE HYDRANTS ARE SITUATED ON CORNERS, BLUE REFLECTIVE RAISED PAVEMENT MARKERS SHALL BE INSTALLED ON BOTH APPROACHES WHICH FRONT THE HYDRANT. THE RAISED PAVEMENT MARKER SHALL MEET TXDOT MATERIAL, EPOXY AND ADHESIVE SPECIFICATIONS.

GROUNDWATER

IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, CONTRACTOR, SUBCONTRACTORS, BUILDERS, GEO-TECHNICAL ENGINEER, AND PROJECT ENGINEER TO IMMEDIATELY NOTIFY THE OFFICE OF THE CITY ENGINEER AND PROJECT ENGINEER IF THE PRESENCE OF GROUNDWATER WITHIN THE SITE IS EVIDENT. UPON NOTIFICATION THE PROJECT ENGINEER SHALL RESPOND WITH PLAN REVISIONS FOR THE MITIGATION OF THE GROUNDWATER ISSUE, THE CITY ENGINEER SHALL RESPOND WITHIN TWO (2) BUSINESS DAYS UPON RECEIPT OF THE MITIGATION PLAN. ALL CONSTRUCTION ACTIVITY, IMPACTED BY THE DISCOVERY OF GROUNDWATER, SHALL BE SUSPENDED UNTIL THE CITY ENGINEER GRANTS A WRITTEN APPROVAL OF THE GROUNDWATER MITIGATION PLAN.

RECORD DRAWINGS

AS PER PLATTING ORDINANCE SECTION 118-38M.: WHEN ALL OF THE IMPROVEMENTS ARE FOUND TO BE CONSTRUCTED AND COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND WITH THE CITY'S STANDARDS, AND UPON RECEIPT OF ONE SET OF "RECORD DRAWING" PLANS, AND A DIGITAL COPY OF ALL PLANS (PDF COPY) THE CITY ENGINEER SHALL ACCEPT SUCH IMPROVEMENTS FOR THE CITY OF NEW BRAUNFELS, SUBJECT TO THE GUARANTY OF MATERIAL AND WORKMANSHIP PROVISIONS IN THIS SECTION.

CONSTRUCTION NOTE

ENGINEER OF RECORD IS RESPONSIBLE TO ENSURE THAT EROSION CONTROL MEASURES AND STORMWATER CONTROL SUFFICIENT TO MITIGATE OFF SITE IMPACTS ARE IN PLACE AT ALL STAGES OF CONSTRUCTION.

DRAINAGE NOTE

DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE THE IMPACT OF CONSTRUCTION SHALL BE INSTALLED PRIOR TO ADDING IMPERVIOUS COVER.

FINISHED FLOOR ELEVATIONS

THE ELEVATION OF THE LOWEST FLOOR SHALL BE AT LEAST 10 INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND, WHICH SHALL BE SLOPED IN A FASHION SO AS TO DIRECT STORMWATER AWAY FROM THE STRUCTURE. PROPERTIES ADJACENT TO STORMWATER CONVEYANCE STRUCTURES MUST HAVE FLOOR SLAB ELEVATION OR BOTTOM OF FLOOR JOISTS A MINIMUM OF ONE FOOT ABOVE THE 100-YEAR WATER FLOW ELEVATION IN THE STRUCTURE. DRIVEWAYS SERVING HOUSES ON THE DOWNHILL SIDE OF THE STREET SHALL HAVE A PROPERLY SIZED CROSS SWALE PREVENTING RUNOFF FROM ENTERING THE GARAGE.

SOILS TESTING

PROCTORS SHALL BE SAMPLED FROM ON-SITE MATERIAL (ON-SITE IS DEFINED AS LIMITS OF CONSTRUCTION FOR THIS PLAN SET) AND A COPY OF THE PROCTOR RESULTS SHALL BE DELIVERED TO THE CITY OF NEW BRAUNFELS STREET INSPECTOR PRIOR TO ANY DENSITY TESTS.

ROADWAY

ALL ROADWAY COMPACTION TESTS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FLEXIBLE BASE OR FILL/EMBANKMENT MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED EIGHT INCHES (8") LOOSE. THE REQUIRED DENSITY FOR THE FILL/EMBANKMENT MATERIAL SHALL MEET THE REQUIREMENTS OF TXDOT'S SPECIFICATION ITEM 132. THE REQUIRED DENSITY FOR THE FLEXIBLE BASE MATERIAL SHALL MEET THE REQUIREMENTS OF TXDOT'S SPECIFICATION ITEM 247. EACH LAYER OF MATERIAL, INCLUSIVE OF SUBGRADE, SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 200 LF FOR EACH LIFT. UPON COMPLETION OF TESTING, THE GEOTECHNICAL ENGINEER WILL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FLEXIBLE BASE, AND FILL MATERIAL, AND SUBGRADE, HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. ADDITIONAL DENSITY TESTS MAY BE REQUESTED BY THE CITY OF NEW BRAUNFELS INSPECTOR.

ITEM 340

ASPHALTIC CONCRETE PAVEMENT SHALL BE THE TYPE OF HOT MIX ASPHALT AS DEFINED IN TXDOT'S STANDARD SPECIFICATIONS FOR CURRENT TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREET AND BRIDGES.

THE CITY OF NEW BRAUNFELS WILL NOT ACCEPT THE USE OF RECYCLED ASPHALT PAVEMENT (RAP) OR RECYCLED ASPHALT SHINGLES (RAS) IN ASPHALT MIXTURES FOR NEW ROADWAYS. ANY DEBRIS INCLUSIONS WITHIN NEW ASPHALT PAVEMENTS WILL RESULT IN ASPHALT REMOVAL AND REPLACEMENT FROM CURB TO CURB FOR LIMITS TO BE DETERMINED BY THE CITY OF NEW BRAUNFELS.

THE ASPHALTIC CONCRETE PAVEMENT SURFACE COURSE SHALL BE PLANT MIXED, HOT LAID TYPE "D" MEETING THE SPECIFICATION REQUIREMENTS OF TXDOT ITEM 340. THE ASPHALTIC CONCRETE PAVEMENT SUB-SURFACE COURSES SHALL BE PLANT MIXED, HOT LAID TYPE "B" MEETING THE SPECIFICATION REQUIREMENTS OF TXDOT ITEM 340. THE MIXTURE SHALL BE DESIGNED PER THE DESIGN REQUIREMENTS SPECIFIED IN TXDOT ITEM 340 AND SHALL BE COMPACTED TO BETWEEN 91 AND 95 PERCENT OF THE MAXIMUM THEORETICAL DENSITY AS DETERMINED BY TXDOT TEST METHOD TEX-227-F. PLACE THE MIXTURE WHEN THE ROADWAY SURFACE TEMPERATURE IS AT OR ABOVE 60°F. COMPLETE ALL COMPACTION OPERATIONS BEFORE THE PAVEMENT TEMPERATURE DROPS BELOW 160°F. THE ASPHALT CEMENT CONTENT BY PERCENT OF TOTAL MIXTURE WEIGHT SHALL FALL WITHIN A TOLERANCE OF +0.5 PERCENT FROM A SPECIFIC MIX DESIGN.

UTILITY TRENCH COMPACTION (ADDED TO THE CONSTRUCTION PLANS ON ALL UTILITY PLAN SHEETS)

ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET PAVEMENT/SIDEWALK SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEOTECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. DETERMINE THE MAXIMUM LIFT THICKNESS BASED ON THE ABILITY OF THE COMPACTING OPERATION AND EQUIPMENT USED TO MEET THE REQUIRED DENSITY. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 200 LF FOR EACH LIFT AND EVERY OTHER SERVICE LINE. UPON COMPLETION OF TESTING THE GEOTECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. ADDITIONAL DENSITY TESTS MAY BE REQUESTED BY THE CITY OF NEW BRAUNFELS INSPECTOR.

CURB CUT DUE TO CONSTRUCTION OF NEW RIGHT-OF-WAY CONSTRUCTION

(INDICATE THE 2 OPTIONS ON THE CONSTRUCTION PLANS).

1. SAWCUT EXISTING STREET AND MATCH TO NEW CONSTRUCTION.
2. SAWCUT EXISTING CURB TO TIE INTO EXISTING CONSTRUCTION.

CONSTRUCTION STABILIZED ENTRANCE

SAWCUT CURB FOR CONSTRUCTION ENTRANCE.

STABILIZED CONSTRUCTION AREA SHALL BE CONSTRUCTED OF 3"X5" ROCK TO BE PLACED A MINIMUM LENGTH OF 25-FT. AND MAINTAINED SO THAT CONSTRUCTION DEBRIS DOES NOT FALL WITHIN THE CITY RIGHT-OF-WAY. RIGHT OF-WAY MUST BE CLEARED FROM MUD, ROCKS, ETC. AT ALL TIMES.

(NOTES TO BE PLACED ON ALL WW PLAN & DETAIL SHEETS)

ENSURE ALL DRIVEWAY APPROACHES ARE BUILT IN GENERAL ACCORDANCE WITH A.D.A. SPECIFICATIONS.

NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.

SIGNING AND PAVEMENT MARKING PLAN NOTES

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REGULATORY AND WARNING SIGNS, STREETS NAME SIGNS AND SIGN MOUNTS IN ACCORDANCE WITH APPROVED ENGINEERING PLANS. THE CITY WILL INSPECT ALL SIGNS AT FINAL INSPECTION.

THE CONTRACTOR SHALL INSTALL ALL PAVEMENT MARKINGS IN ACCORDANCE WITH APPROVED ENGINEERING PLANS. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO THE INSTALLATION OF ALL SEALER AND FINAL MARKINGS. THE CITY WILL INSPECT ALL MARKINGS AT FINAL APPLICATION.

SEEDING AND ESTABLISHMENT OF VEGETATION WITHIN EARTHEN CHANNELS, STORMWATER BASINS AND

DISTURBED AREAS SEEDING FOR THE PURPOSE OF ESTABLISHING VEGETATION WITHIN CONSTRUCTED EARTHEN CHANNELS, BASINS AND DISTURBED AREAS SHALL BE CONDUCTED IN ACCORDANCE WITH ITEM 164 (SEEDING FOR EROSION CONTROL) OF TXDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES MANUAL. ONLY SEED TYPES AND MIXES SPECIFIED FOR THE SAN ANTONIO DISTRICT (DISTRICT 15) IN TABLES 1 AND 2 UNDER ITEM 164 SHALL BE UTILIZED. DURING THE COOL SEASON (SEPT 1-NOV 30), CEREAL RYE AND SEED SPECIES SPECIFIED FOR THE SAN ANTONIO DISTRICT IN TABLE 3 MAY BE USED. FOR COOL SEASON SEEDING APPLICATIONS, COOL SEASON SEED MIXES SHALL BE USED IN CONJUNCTION WITH SEED MIXES FOR THE SAN ANTONIO DISTRICT AS SPECIFIED IN TABLE 1 AND 2 UNDER ITEM 164.

IT MAY BE DEEMED NECESSARY TO INCORPORATE TOPSOIL AND SOIL AMENDMENTS (I.E. COMPOST/ FERTILIZER) INTO EXISTING SOIL IN ORDER TO FACILITATE VEGETATION GROWTH. TOPSOIL, COMPOST AND FERTILIZER ADDITIONS SHALL BE CONDUCTED ACCORDING TO ITEMS 160, 161 AND 166 OF TXDOT'S STANDARD SPECIFICATIONS MANUAL, RESPECTIVELY.

WATERING MAY ALSO BE NECESSARY TO FACILITATE AND EXPEDITE THE SPROUTING AND GROWTH OF VEGETATION. ITEM 168 OF TXDOT'S STANDARD SPECIFICATIONS MANUAL SHALL BE ADHERED TO FOR VEGETATIVE WATERING.

IF EXTENDED DROUGHT CONDITIONS EXIST THAT HINDER OR PROHIBIT THE GROWTH AND ESTABLISHMENT OF VEGETATION, THE CONTRACTOR/ DEVELOPER SHALL PROVIDE A PLAN TO THE CITY OF NEW BRAUNFELS DESCRIBING THE MEASURES THAT WILL BE TAKEN TO STABILIZE EARTHEN DRAINAGE INFRASTRUCTURE UNTIL A TIME WHEN GROWING CONDITIONS BECOME MORE FAVORABLE.

SIGNAGE NOTES

INSTALLATION

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REGULATORY, WARNING AND STREET NAME SIGNS AND SIGN MOUNTS IN ACCORDANCE WITH APPROVED ENGINEERING PLANS.

MOUNTING

THE WEDGE ANCHOR STEEL SYSTEM AND THIN-WALLED TUBING POST SHALL BE USED FOR SIGNS WITH UP TO 10 SQUARE FEET OF SIGN AREA. MATERIALS AND INSTALLATION SHOULD FOLLOW THE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) TRAFFIC STANDARDS SMD (GEN) - 08 AND SMD (TWT) - 08.

THE TRIANGULAR SLIP BASE SYSTEM AND 10 BWG TUBING POST SHALL BE USED FOR SIGNS THAT HAVE 10 TO 16 SQUARE FEET OF SIGN AREA. MATERIALS AND INSTALLATION SHOULD FOLLOW THE TXDOT TRAFFIC STANDARDS SMD (GEN) - 08 AND SMD (SLIP-1-3) - 08.

OBJECT MARKERS MATERIALS AND INSTALLATION SHOULD FOLLOW THE TXDOT TRAFFIC STANDARDS D & OM (1 - 5) - 10.

MATERIALS

SIGN MATERIALS INCLUDING ALUMINUM SIGN BLANKS AND SIGN FACE MATERIALS SHOULD FOLLOW THE TXDOT TRAFFIC STANDARDS TSR (1 - 5) - 08 AND DEPARTMENTAL MATERIAL SPECIFICATIONS DMS-7110 AND DMS-8300.

THE CITY OF NEW BRAUNFELS WILL INSPECT ALL SIGNS AT FINAL INSPECTION.

SEQUENCE OF CONSTRUCTION

1. INSTALL EROSION CONTROLS PER APPROVED PLAN.
2. TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED WEEKLY AND PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR EROSION CONTROL ISSUES.
3. CONDUCT DEMOLITION ACTIVITIES, IF APPLICABLE.
4. CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.
5. CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION.
6. CONSTRUCT DEVELOPMENT PER APPROVED PLANS.
7. INSTALL STREETSCAPE AND/OR LANDSCAPING IMPROVEMENTS.
8. CONTRACTOR TO VEGETATE ANY DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN OF 70% VEGETATION PRIOR TO COMPLETION. PER TPDES REQUIREMENTS, DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.
9. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
10. TPDES REQUIREMENTS - DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY WILL BEGIN AGAIN WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

UTILITIES

LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN HERE ARE APPROXIMATE ONLY. ACTUAL LOCATIONS AND DEPTHS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION, INCLUDING THOSE NOT SHOWN ON THE DRAWINGS.
ANY EXISTING UTILITIES, ON OR OFF THE SITE, THAT ARE DAMAGED OR UNDERCUT BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AND APPROVED BY THE RESPECTIVE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.
CONTRACTOR SHALL NOTIFY APPROPRIATE UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION AT:

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION

SPRINGS HILLS WATER (WATER)	(830) 379-7683
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

CONTRACTOR SHALL REFERENCE NEW BRAUNFELS UTILITIES PLANS FOR FINAL ELECTRICAL LINE DESIGNS AND LAYOUT.

WASTEWATER NOTES

GBRA CONSTRUCTION NOTES — REVISED 3/09/18

1. ALL WORK SHALL BE IN ACCORDANCE WITH GBRA STANDARDS AS PUBLISHED AT THE FOLLOWING WEBSITE: HTTP://WWW.GBRA.ORG/PUBLIC/WATERWASTEWATERSERVICES.ASPX
2. COPIES OF EACH CONSTRUCTION SUBMITTAL (SHOP DRAWINGS, PRODUCT DATA, ETC.) SHALL BE PROVIDED FOR GBRA REVIEW AND APPROVAL PRIOR TO FABRICATION. USE CLOUDS, BOXES, ARROWS,

WATER NOTES REVISED 3/22

SHWSC GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THE PROJECT SHALL BE APPROVED BY SHWSC AND COMPLY WITH ALL APPLICABLE STANDARDS AND REGULATIONS.
2. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK UNTIL WRITTEN APPROVAL IS OBTAINED FROM SHWSC. WORK COMPLETED BY THE CONTRACTOR, WHICH HAS NOT RECEIVED AN APPROVAL WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR AT THE PREROGATIVE OF SHWSC.
3. THE DEVELOPER DEDICATES THE WATER MAINS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY SHWSC. SHWSC WILL OWN AND MAINTAIN SAID WATER MAINS WHICH ARE LOCATED WITHIN SAID SUBDIVISION. (AS APPLICABLE).
4. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNERS AND THE ENGINEER AND HIS EMPLOYEES, PARTNERS OFFICERS, DIRECTORS, OR CONSULTANTS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING FROM LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.
5. 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.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION, ANY DAMAGES DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES, AND EXISTING UTILITIES (NOT ADJUSTED ON PLANS). COST OF RESTORATIONS, IF ANY, SHALL BE THE CONTRACTOR'S ENTIRE EXPENSE.
7. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION.
8. CONTRACTOR SHALL PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, FEES AND TAXES AND GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.
9. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.
10. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT.
11. THE CONTRACTOR SHALL NOT PLACE ANY MATERIALS ON THE RECHARGE ZONE OF THE EDWARDS AQUIFER WITHOUT AN APPROVED WATER POLLUTION ABATEMENT PLAN FROM THE TCEQ 31 TAC 313.4 AND 31 TAC 313.9.
12. BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE ALWAYS PROVIDING CONTINUOUS TRAFFIC FLOW DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION.
13. CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.
14. THE LOCATION OF UTILITIES, EITHER UNDERGROUND OR OVERHEAD, SHOWN WITHIN THE RIGHT OF WAY ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR BEFORE BEGINNING CONSTRUCTION OPERATIONS.
15. OSHA REGULATIONS PROHIBIT OPERATIONS THAT WILL BRING PERSONS OR EQUIPMENT WITHIN 10 FEET OF AN ENERGIZED LINE. WHERE WORKMEN AND/OR EQUIPMENT HAVE TO WORK CLOSE TO AN ENERGIZED ELECTRICAL LINE, THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL POWER COMPANY INVOLVED AND MAKE WHATEVER ADJUSTMENTS NECESSARY TO ENSURE THE SAFETY OF THOSE WORKMEN.
16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION. UTILITY COMPANIES ARE ALSO PREVIOUSLY MENTIONED IN "UTILITY COMPANY NOTIFICATION".
17. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (8), GAS COMPANIES MUST ALWAYS MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
18. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE TRAFFIC CONTROL AND WILL BE RESPONSIBLE FOR FURNISHING ALL TRAFFIC CONTROL DEVICES, AND FLAGGERS. THE CONSTRUCTION METHODS SHALL BE CONDUCTED TO PROVIDE THE LEAST POSSIBLE INTERFERENCE TO TRAFFIC TO ALWAYS PERMIT THE CONTINUOUS MOVEMENT OF THE TRAFFIC IN ONE DIRECTION. THE CONTRACTOR SHALL CLEAN UP AND REMOVE FROM THE WORK AREA ANY LOOSE MATERIAL RESULTING FROM CONTRACT OPERATIONS AT THE END OF EACH WORKDAY.
19. PRIOR TO ORDERING MATERIALS TO BE USED IN CONSTRUCTION, CONTRACTOR SHALL PROVIDE SHWSC WITH FOUR (4) COPIES OF THE SOURCE, TYPE, GRADATION, MATERIAL SPECIFICATION DATA AND/OR SHOP DRAWINGS, AS APPLICABLE, TO SATISFY THE REQUIREMENTS OF THE FOLLOWING ITEMS AND ALL MATERIAL ITEMS REFERRED TO IN THESE LISTED ITEMS:
    A. WATER MAINS AND SERVICES
20. NO METER BOXES, VALVES, TO BE SET IN DRIVEWAYS OR SIDEWALKS. ANY METER BOXES SET IN THESE AREAS WILL BE RELOCATED AT THE CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
21. WHERE THE MINIMUM 9-FOOT SEPARATION DISTANCE BETWEEN SEWER LINES AND WATER LINES/MAINS CANNOT BE MAINTAINED, THE INSTALLATION OF WATER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ.
22. 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 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.
23. UTILITY TRENCH COMPACTION WITH STREET RIGHT-OF-WAY.

A. ALL UTILITY TRENCH COMPACTION TEST WITHIN THE STREET PAVEMENT SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEO-TECHNICAL ENGINEER.

B. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E.

C. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEO-TECHNICAL ENGINEER AND APPROVED BY SHWSC.

D. UPON COMPLETION OF TESTING THE GEO-TECHNICAL ENGINEER SHALL PROVIDE SHWSC INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

CONSTRUCTION NOTES (2 OF 2)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

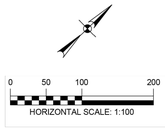
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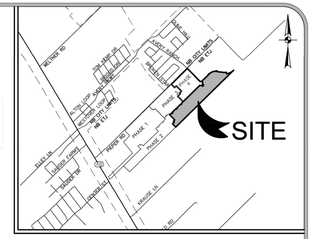
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FINAL PLAT ESTABLISHING

PARKSIDE SUBDIVISION, PHASE 5

BEING 36.212 ACRES OF LAND SITUATED IN THE ANTONIO MARIA ESNAURIZAR SURVEY, ABSTRACT 20, LOCATED IN GUADALUPE COUNTY, TEXAS. BEING A PORTION OF A CALLED 99.104 ACRE TRACT, RECORDED IN DOCUMENT NO. 202099026776, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS.





LOCATION MAP
NOT TO SCALE

PLAT NOTES:

1. ALL LOTS WITHIN THE SUBDIVISION WILL BE PROVIDED WATER SERVICES BY SPRINGS HILL WATER SUPPLY CORPORATION (SHWSC). SEWER SERVICES WILL BE PROVIDED BY GUADALUPE-BLANCO RIVER AUTHORITY (GBRA). ELECTRIC SERVICES BY NEW BRAUNFELS UTILITIES (NBU). TELEPHONE AND CABLE SERVICES FOR THE SUBDIVISION WILL BE PROVIDED BY AT&T COMMUNICATIONS AND/OR SPECTRUM.
2. ALL BEARINGS AND COORDINATES SHOWN HEREON ARE BASED UPON THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204), NORTH AMERICAN DATUM 1983, GRID. DISTANCES SHOWN HEREON ARE BASED UPON SURFACE MEASUREMENTS. TO CONVERT SURFACE DISTANCES TO GRID, APPLY A COMBINED SCALE FACTOR OF 1.00015.
3. MONUMENTS WERE FOUND OR SET AT EACH CORNER OF THE SURVEY BOUNDARY OF THE SUBDIVISION. MONUMENTS AND LOT MARKERS WILL BE SET WITH 1/2" IRON PINS WITH PLASTIC CAP STAMPED "HMT" IMMEDIATELY AFTER COMPLETION OF UTILITY INSTALLATION AND STREET CONSTRUCTION UNLESS NOTED OTHERWISE.
4. THIS SUBDIVISION IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE.
5. THIS SUBDIVISION IS WITHIN THE EXTRATERRITORIAL JURISDICTION LIMITS OF THE CITY LIMITS OF THE CITY OF NEW BRAUNFELS, TEXAS.
6. THIS SUBDIVISION IS WITHIN THE COMAL INDEPENDENT SCHOOL DISTRICT.
7. NO PORTION OF THE SUBDIVISION IS LOCATED WITHIN AN INDICATED SPECIAL FLOOD HAZARD ZONING ACCORDING TO THE ADOPTED FLOOD MAPS OF THE CITY OF NEW BRAUNFELS, AS DEFINED BY THE GUADALUPE COUNTY, TEXAS, FLOOD INSURANCE RATE MAP NUMBER 48187C0120F, EFFECTIVE DATE NOVEMBER 2, 2007 AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
8. NO STRUCTURES, WALLS OR OTHER OBSTRUCTIONS OF ANY KIND SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THIS PLAT. NO LANDSCAPING, FENCES, OR OTHER TYPE OF MODIFICATIONS WHICH ALTER THE CROSS SECTIONS OF THE DRAINAGE EASEMENTS OR DECREASE THE HYDRAULIC CAPACITY OF THE EASEMENT, AS APPROVED, SHALL BE ALLOWED WITHOUT THE APPROVAL OF THE CITY ENGINEER. THE CITY OF NEW BRAUNFELS SHALL HAVE THE RIGHT OF INGRESS AND EGRESS ACROSS GRANTOR'S ADJACENT PROPERTY TO REMOVE ANY OBSTRUCTIONS PLACED WITHIN THE LIMITS OF SAID DRAINAGE EASEMENTS AND TO MAKE ANY MODIFICATIONS OR IMPROVEMENTS WITHIN SAID DRAINAGE EASEMENTS.
9. FUTURE DEVELOPMENT IS SUBJECT TO CHAPTER 114 (STREETS, SIDEWALKS AND OTHER PUBLIC SPACES) OF THE NEW BRAUNFELS CODE OF ORDINANCES.
10. TEN (10) FOOT WIDE SIDEWALKS WILL BE CONSTRUCTED BY THE DEVELOPER PER CITY STANDARDS AT THE TIME OF SUBDIVISION STREET CONSTRUCTION ALONG:
    A. WINCHESTER DR – OPPOSITE LOTS 901 & 902, BLOCK 37; AND OPPOSITE LOTS 521, 531, BLOCK 38.
11. FOUR (4) FOOT WIDE SIDEWALKS WILL BE CONSTRUCTED PER CITY STANDARDS BY THE DEVELOPER AT THE TIME OF STREET CONSTRUCTION ALONG:
    A. AVERY RANCH DRIVE – LOTS L, AND 411 BLOCK 28, ALONG LOT M, BLOCK 36, AND LOT 901 HOA PARK, AND LOTS 406–410, BLOCK 31.
    B. WILD DUCK WAY – LOT L, BLOCK 28 AND LOT N, BLOCK 31.
    C. PEAKSIDE/BLUFFDALE SAC – LOT L, BLOCK 28
    D. LEGENDS CREEK – LOT L, BLOCK 28 AND LOT M, BLOCK 32.
    E. BLUFFDALE DR. – LOT P, BLOCK 32
12. FOUR (4) FOOT WIDE SIDEWALKS WILL BE CONSTRUCTED PER CITY STANDARDS BY THE HOME BUILDER AT THE TIME OF BUILDING CONSTRUCTION ALONG: BROKEN ARROW, TWISTED CREEK, LOST CREEK ROAD, LEGENDS CREEK, WILD DUCK WAY, PEAKSIDE CIR, BLUFFDALE DR, SPITFIRE TRL, YAUPON TRL., HOLLOW SAGE, AND WINCHESTER DR.
13. THE ELEVATION OF THE LOWEST FLOOR OF A STRUCTURE SHALL BE AT LEAST 10 INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND, WHICH SHALL BE SLOPED IN A FASHION SO AS TO DIRECT STORMWATER AWAY FROM THE STRUCTURE. PROPERTIES ADJACENT TO STORMWATER CONVEYANCE STRUCTURES MUST HAVE A FLOOR SLAB ELEVATION OR BOTTOM OF FLOOR JOISTS A MINIMUM OF ONE FOOT ABOVE THE 100-YEAR WATER FLOW ELEVATION IN THE STRUCTURE. DRIVEWAYS SERVING HOUSES ON THE DOWNHILL SIDE OF THE STREET SHALL HAVE A PROPERLY SIZED CROSS SWALE PREVENTING RUNOFF FROM ENTERING THE GARAGE AND SHALL PREVENT WATER FROM LEAVING THE STREET.
14. THIS SUBDIVISION IS SUBJECT TO THE 2018 CITY OF NEW BRAUNFELS PARK LAND DEDICATION AND DEVELOPMENT ORDINANCE. THIS PLAT IS APPROVED FOR ONE DWELLING UNIT(S) PER BUILDABLE LOT WITH A MAXIMUM OF 145 BUILDABLE LOTS. AT SUCH TIME THAT ADDITIONAL DWELLING UNITS ARE CONSTRUCTED, THE OWNER OF THE LOT(S) SHALL NOTIFY THE CITY AND COMPLY WITH THE ORDINANCE FOR EACH DWELLING UNIT.
15. THIS UNIT CONTAINS 155 BUILDABLE RESIDENTIAL LOTS.
16. PERMANENT WATER QUALITY CONTROLS ARE REQUIRED FOR THIS SUBDIVISION PLAT IN ACCORDANCE WITH THE CITY OF NEW BRAUNFELS DRAINAGE AND EROSION CONTROL DESIGN MANUAL.
17. A PORTION OF THIS SUBDIVISION IS IN THE AIRPORT OVERLAY DISTRICT APPROACH ZONE 3. THIS SUBDIVISION IS SUBJECT TO THE AIRPORT HAZARD ZONING OVERLAY DISTRICT STANDARDS AND REGULATIONS OF THE CITY OF NEW BRAUNFELS ZONING ORDINANCE.
18. ANY DRIVEWAY CONSTRUCTION ON COUNTY ROADS WITHIN THE UNINCORPORATED AREAS OF GUADALUPE COUNTY MUST BE PERMITTED BY THE GUADALUPE COUNTY ROAD DEPT.

NEW BRAUNFELS UTILITIES NOTES:

1. MAINTENANCE OF DEDICATED UTILITY EASEMENTS IS THE RESPONSIBILITY OF THE PROPERTY OWNER. ANY USE OF AN EASEMENT, OR ANY PORTION OF IT, INCLUDING LANDSCAPING OR DRAINAGE FEATURES, IS SUBJECT TO AND SHALL NOT CONFLICT WITH THE TERMS AND CONDITIONS IN THE EASEMENT, MUST NOT ENDANGER OR INTERFERE WITH THE RIGHTS GRANTED BY THE EASEMENT TO NEW BRAUNFELS UTILITIES, ITS SUCCESSORS AND ASSIGNS, AND SHALL BE SUBJECT TO APPLICABLE PERMIT REQUIREMENTS OF THE CITY OF NEW BRAUNFELS OR ANY OTHER GOVERNING BODY. THE PROPERTY OWNER MUST OBTAIN, IN ADVANCE, WRITTEN AGREEMENT WITH THE UTILITIES TO UTILIZE THE EASEMENT, OR ANY PART OF IT.
2. UTILITIES WILL POSSESS A 5' WIDE SERVICE EASEMENT TO THE DWELLING ALONG THE SERVICE LINE TO THE SERVICE ENTRANCE. THIS EASEMENT WILL VARY DEPENDING UPON LOCATION OF DWELLING AND SERVICE.
3. UTILITIES SHALL HAVE ACCESS TO THE METER LOCATIONS FROM THE FRONT YARD AND METER LOCATIONS SHALL NOT BE LOCATED WITHIN A FENCED AREA.
4. EACH LOT MUST HAVE ITS OWN WATER AND SEWER SERVICE AT THE OWNER'S/DEVELOPER'S EXPENSE.
5. DO NOT COMBINE ANY NEW UTILITY EASEMENTS (U.E.) WITH DRAINAGE EASEMENTS (D.E.) OR MAKE CHANGES IN GRADE WITHIN THE UTILITY EASEMENTS (U.E.) WITHOUT WRITTEN APPROVAL FROM NEW BRAUNFELS UTILITIES.

KNOW ALL MEN BY THESE PRESENTS:

I, THE UNDERSIGNED DOROTHY J. TAYLOR, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECTLY MADE UNDER MY SUPERVISION AND IN COMPLIANCE WITH CITY AND STATE SURVEY REGULATIONS AND LAWS AND MADE ON THE GROUND AND THAT THE CORNER MONUMENTS WERE PROPERLY PLACED UNDER MY SUPERVISION.

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE.

DOROTHY J. TAYLOR
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 6295
290 S. CASTELL AVE., SUITE 100, NEW BRAUNFELS, TEXAS 78130

PLAT PREPARED SEPTEMBER 10, 2021

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 10153600

SPRINGS HILL WATER SUPPLY CORPORATION NOTES:

1. EXISTING WATER INFRASTRUCTURE IN THE VICINITY OF THE TRACT IS AVAILABLE TO SERVE THE PROPOSED DEVELOPMENT. IF THE DEVELOPMENT EXCEEDS THE CAPACITY OF THE EXISTING WATER INFRASTRUCTURE, THEN IT WILL BE THE DEVELOPER'S RESPONSIBILITY TO MAKE THE NECESSARY WATER IMPROVEMENTS TO THE EXISTING INFRASTRUCTURE TO PROVIDE SUFFICIENT CAPACITY. EXTENT OF THE NECESSARY WATER IMPROVEMENTS WILL BE OUTLINED IN A MEMORANDUM OF UNDERSTANDING OR NON-STANDARD SERVICE AGREEMENT PRIOR TO THE APPROVAL OF ANY FINAL PLAT.
2. SHWSC SHALL HAVE ACCESS TO METER LOCATIONS FROM THE FRONT YARD WITH THE LOCATION NOT BEING WITHIN A FENCED AREA.
3. ANY EASEMENT DESIGNATED AS A SHWSC UTILITY EASEMENT SHALL REMAIN OPEN FOR ACCESS AT ALL TIMES AND SHALL NOT BE WITHIN A FENCED AREA.
4. ALL SHWSC EASEMENTS ARE FOR CONSTRUCTION, MAINTENANCE (INCLUDING BUT NOT LIMITED TO REMOVAL OF TREES AND OTHER OBSTRUCTIONS), READING OF METERS, AND REPAIR OF ANY SHWSC FACILITY LOCATED WITHIN SAID EASEMENT.

Daniel Pepin — Date
General Manager
Springs Hill Water Supply Corporation

GBRA NOTES:

1. PROVIDE DEDICATED EASEMENTS IN THE NAME OF GBRA. EASEMENTS SHALL NOT OVERLAP OR BE WITHIN RESIDENTIAL LOTS.
2. WHERE OUTSIDE OF PUBLIC RIGHT-OF-WAY, PROVIDE DEDICATED EASEMENTS WITH A MINIMUM WIDTH EQUAL TO PIPE OUTSIDE DIAMETER, ROUNDED UP TO THE NEAREST FOOT, PLUS 10 FEET MINIMUM ON EACH SIDE. FOR EASEMENTS WITH MULTIPLE PIPES, PROVIDE 10 FEET MINIMUM HORIZONTAL CLEARANCE BETWEEN PIPES. PROVIDE ADDITIONAL WIDTH FOR EASEMENTS THAT ARE NOT LOCATED ADJACENT TO PUBLIC RIGHT-OF-WAY.
3. THE GUADALUPE-BLANCO RIVER AUTHORITY (GBRA) IS HEREBY DEDICATED THE EASEMENT AND RIGHTS-OF-WAY IN THE AREAS DESIGNATED ON THIS PLAN FOR WASTEWATER FACILITIES FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, RECONSTRUCTING, OPERATING, MAINTAINING, INSPECTING, REPAIRING, REMOVING, AND RELOCATING BURIED AND/OR EXPOSED WASTEWATER FACILITIES AND APPURTENANCES.
4. TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS, GBRA SHALL HAVE THE RIGHT TO REMOVE SAID LANDS OF ALL TREES OR PARTS THEREOF, OR ANY OTHER OBSTRUCTIONS WHICH MAY ENDANGER, OR INTERFERE WITH MAINTENANCE OF THE FACILITIES AND APPURTENANCES.
5. OTHER UTILITIES, STRUCTURES, GRADING, DRAINAGE, DETENTION/RETENTION PONDS, LANDSCAPING, TREES, ROADS, PARKING LOTS, FENCES, WALLS, CONSTRUCTION OF ANY TYPE, OR ANY OTHER IMPROVEMENTS OR OBSTRUCTIONS, ARE NOT ALLOWED WITHIN GBRA EASEMENTS.
6. DESIGNS FOR ANY PROPOSED ALTERATIONS OR CROSSINGS OF GBRA EASEMENTS MUST BE APPROVED IN WRITING BY GBRA AND THE INSTALLATION OF SUCH MUST BE INSPECTED AND APPROVED BY GBRA.
7. MAINTENANCE OF EASEMENTS IS THE RESPONSIBILITY OF THE PROPERTY OWNER.
8. THE PROPERTY OWNER MUST INSTALL 16-FOOT GATES IN ANY FENCES THAT CROSS GBRA UTILITIES; GATES MUST BE CENTERED ACROSS GBRA UTILITIES.
9. CUSTOMER WASTEWATER SERVICES SHALL NOT BE INSTALLED WITHIN FENCED AREAS.

APPROVED THIS THE _____ DAY OF _____, 20___, BY THE PLANNING COMMISSION OF THE CITY OF NEW BRAUNFELS, TEXAS.

_____,
CHAIRMAN

APPROVED FOR ACCEPTANCE

_____ DATE — _____ PLANNING DIRECTOR

_____ DATE — _____ CITY ENGINEER

_____ DATE — _____ NEW BRAUNFELS UTILITIES

STATE OF TEXAS
COUNTY OF GUADALUPE

I (WE) THE UNDERSIGNED OWNER(S) OF THE LAND SHOWN ON THIS PLAT, AND DESIGNATED HEREIN AS THE LANDING A SUBDIVISION TO THE CITY OF NEW BRAUNFELS, COUNTY OF COMAL/GUADALUPE, TEXAS, AND WHOSE NAME IS SUBSCRIBED HERETO, DO HEREBY SUBDIVIDE SUCH PROPERTY AND DEDICATE TO THE USE OF THE PUBLIC ALL STREETS, ALLEYS, PARKS, DRAINS, EASEMENTS, AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

_____
LENNAR HOMES OF TEXAS LAND
AND CONSTRUCTION, LTD.,
A TEXAS LIMITED PARTNERSHIP

BY: U.S. HOME LLC, A DELAWARE LIMITED
LIABILITY COMPANY (AS SUCCESSOR-IN-INTEREST
BY CONVERSION TO U.S. HOME CORPORATION,
A DELAWARE CORPORATION), ITS GENERAL PARTNER

BY: LENNAR HOMES OF TEXAS LAND AND CONSTRUCTION, LTD
100 NE LOOP 410, SUITE 1155
SAN ANTONIO, TX 78216
NAME: RICHARD MOTT
TITLE: VICE PRESIDENT OF LAND DEVELOPMENT

STATE OF TEXAS
COUNTY OF _____.

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS
_____ DAY OF _____, 20___,
BY _____

_____
NOTARY PUBLIC, STATE OF TEXAS
MY COMMISSION EXPIRES: _____

STATE OF TEXAS
COUNTY OF GUADALUPE

_____
COUNTY CLERK, GUADALUPE COUNTY, TEXAS

_____
DEPUTY

FOR REFERENCE ONLY
PLAT STATUS: IN REVIEW

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

SUBDIVISION PLAT (1 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

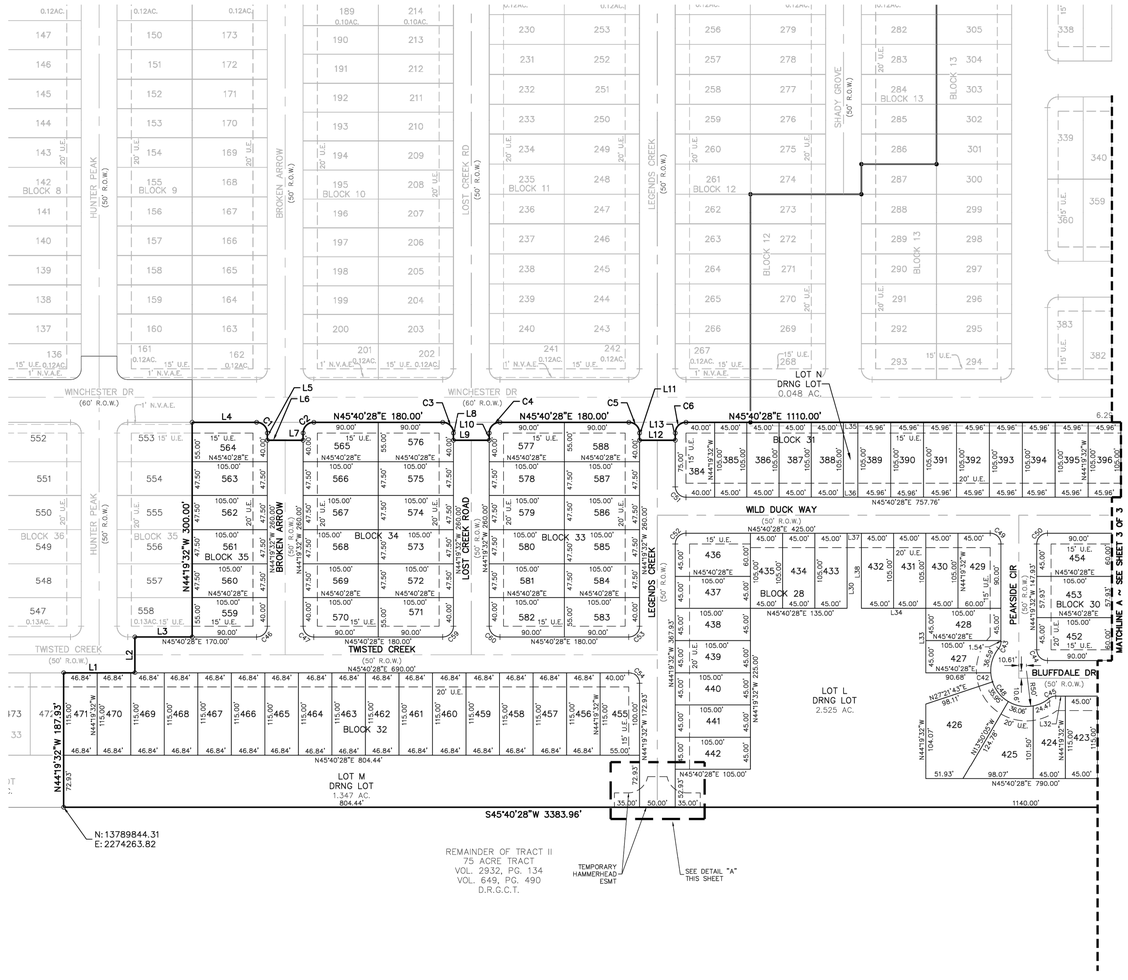
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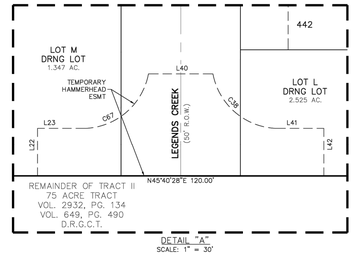
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Drawing Name: K:\337 – Lennar Homes\017 – Parkside Unit 5\Parkside Unit 5 Plat.dwg User: nicolas Feb 06, 2023 - 12:06pm

FINAL PLAT ESTABLISHING

PARKSIDE SUBDIVISION, PHASE 5

BEING 36.212 ACRES OF LAND SITUATED IN THE ANTONIO MARIA ESNAURIZAR SURVEY, ABSTRACT 20, LOCATED IN GUADALUPE COUNTY, TEXAS. BEING A PORTION OF A CALLED 99.104 ACRE TRACT, RECORDED IN DOCUMENT NO. 202099026776, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS.





DETAIL "A"
SCALE: 1" = 30'

0 50 100 200
HORIZONTAL SCALE: 1:100

LEGEND:
- ● = FND 1/2" IRON PIN W/ PLASTIC CAP STAMPED "HMT" (UNLESS NOTED OTHERWISE)
- o = SET 1/2" IRON PIN W/ PLASTIC CAP STAMPED "HMT"
- U.E. = UTILITY EASEMENT
- UTIL = UTILITY EASEMENT
- DRNG = DRAINAGE
- R.O.W. = RIGHT-OF-WAY
- M.P.R.G.C.T. = MAP AND PLAT RECORDS, GUADALUPE COUNTY, TEXAS
- O.P.R.G.C.T. = OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS
- = AIRPORT APPROACH 3 ZONE (MAX. DENSITY ALLOWED 6.0 UNITS PER ACRE)

PLAT PREPARED SEPTEMBER 10, 2021

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 10153600

SHEET 2 OF 3

FOR REFERENCE ONLY

PLAT STATUS: IN REVIEW

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

SUBDIVISION PLAT (2 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C0.05

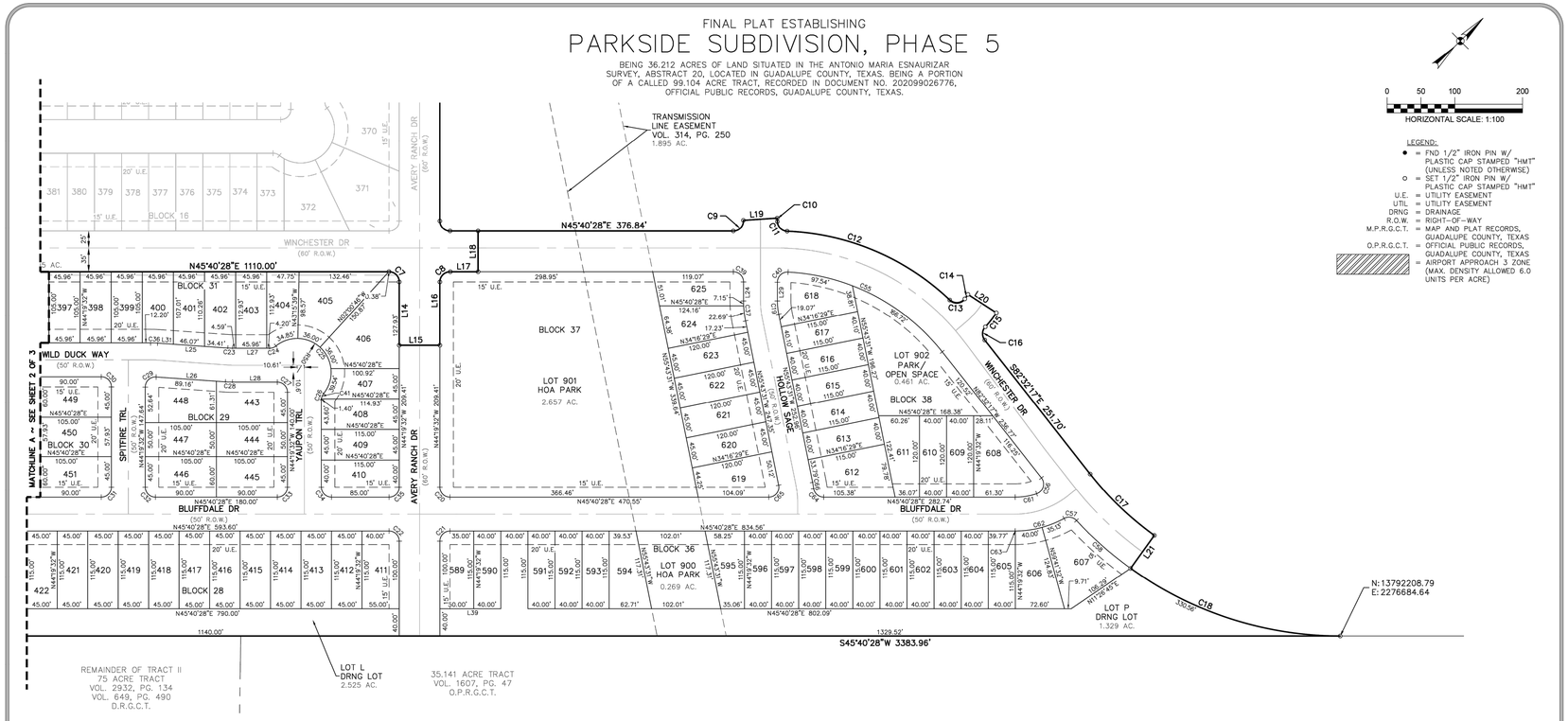
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FINAL PLAT ESTABLISHING

PARKSIDE SUBDIVISION, PHASE 5

BEING 36.212 ACRES OF LAND SITUATED IN THE ANTONIO MARIA ESNAURIZAR SURVEY, ABSTRACT 20, LOCATED IN GUADALUPE COUNTY, TEXAS. BEING A PORTION OF A CALLED 99.104 ACRE TRACT, RECORDED IN DOCUMENT NO. 202099026776, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS.



LEGEND:

- ● = FND 1/2" IRON PIN W/ PLASTIC CAP STAMPED "HMT" (UNLESS NOTED OTHERWISE)
- ○ = SET 1/2" IRON PIN W/ PLASTIC CAP STAMPED "HMT"
- U.E. = UTILITY EASEMENT
- UTIL = UTILITY EASEMENT
- DRNG = DRAINAGE
- R.O.W. = RIGHT-OF-WAY
- M.P.R.G.C.T. = MAP AND PLAT RECORDS, GUADALUPE COUNTY, TEXAS
- O.P.R.G.C.T. = OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS
- = AIRPORT APPROACH 3 ZONE (MAX. DENSITY ALLOWED 6.0 UNITS PER ACRE)

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	99.44'	N45°40'28"E
L2	50.00'	S44°19'32"E
L3	80.00'	S45°40'28"W
L4	90.00'	S45°40'28"W
L5	10.00'	S44°19'32"E
L6	50.00'	S45°40'28"W
L7	10.00'	N44°19'32"W
L8	10.00'	S44°19'32"E
L9	50.00'	S45°40'28"W
L10	10.00'	N44°19'32"W
L11	10.00'	S44°19'32"E
L12	50.00'	S45°40'28"W
L13	10.00'	N44°19'32"W
L14	93.53'	S44°19'32"E
L15	60.00'	S45°40'28"W
L16	93.53'	N44°19'32"W
L17	40.99'	N45°40'28"E
L18	60.00'	N44°19'32"W
L19	50.00'	N41°51'27"E
L20	49.98'	N78°38'15"E
L21	60.00'	S08°35'23"E

LINE TABLE		
LINE #	LENGTH	DIRECTION
L22	20.00'	N44°20'02"W
L23	19.00'	N45°40'08"E
L24	27.85'	S44°19'32"E
L25	103.73'	N49°43'02"E
L26	102.48'	N49°43'02"E
L27	54.75'	S45°40'28"W
L28	66.15'	S45°40'28"W
L29	27.46'	S44°19'32"E
L30	105.00'	S44°19'32"E
L31	23.24'	N49°43'02"E
L32	13.60'	S45°40'28"W
L33	90.00'	N44°19'32"W
L34	90.00'	S45°40'28"W
L35	20.00'	N45°40'28"E
L36	20.00'	N45°40'28"E
L37	20.00'	N45°40'28"E
L38	105.00'	N44°19'32"W
L39	90.00'	N45°40'28"E
L40	27.00'	N45°40'28"E
L41	19.00'	N45°40'08"E
L42	20.00'	S44°20'02"E

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD LENGTH	CHORD BEARING
C1	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C2	23.56'	15.00'	090°00'00"	15.00'	21.21'	S00°40'28"W
C3	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C4	23.56'	15.00'	090°00'00"	15.00'	21.21'	S00°40'28"W
C5	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C6	23.56'	15.00'	090°00'00"	15.00'	21.21'	S00°40'28"W
C7	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C8	23.95'	15.00'	091°29'08"	15.39'	21.49'	S01°23'55"W
C9	24.56'	15.00'	093°49'01"	16.03'	21.91'	N01°14'02"W
C10	5.12'	150.00'	001°57'15"	2.56'	5.12'	N47°09'56"W
C11	22.49'	15.00'	085°53'40"	13.96'	20.44'	S89°08'08"E
C12	266.38'	370.00'	041°14'58"	139.28'	260.66'	S68°32'31"W
C13	25.12'	15.00'	095°56'25"	16.64'	22.28'	N41°14'38"E
C14	8.09'	100.00'	004°38'11"	4.05'	8.09'	N09°02'40"W
C15	26.60'	150.00'	010°09'31"	13.33'	26.56'	N06°16'59"W
C16	21.29'	15.00'	081°18'30"	12.88'	19.54'	S41°51'28"E
C17	131.67'	470.00'	016°03'06"	66.27'	131.24'	N89°28'10"E
C18	330.56'	530.00'	035°44'08"	170.86'	325.23'	N63°32'33"E
C19	19.90'	100.00'	011°23'59"	9.98'	19.86'	S50°01'31"E
C20	23.56'	15.00'	090°00'00"	15.00'	21.21'	S89°19'32"E
C21	23.56'	15.00'	089°59'59"	15.00'	21.21'	S00°40'28"W
C22	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C23	7.06'	100.00'	004°02'34"	3.53'	7.05'	N47°41'45"E
C24	10.18'	15.00'	038°52'15"	5.29'	9.98'	N26°14'21"E
C25	146.38'	50.00'	167°44'30"	465.62'	99.43'	N89°19'32"W

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD LENGTH	CHORD BEARING
C26	8.78'	15.00'	033°31'17"	4.52'	8.65'	S22°12'56"E
C27	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C28	10.58'	150.00'	004°02'34"	5.29'	10.58'	N47°41'45"E
C29	24.62'	15.00'	094°02'34"	16.10'	21.95'	S02°41'45"W
C30	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C31	23.56'	15.00'	090°00'00"	15.00'	21.21'	N00°40'28"E
C32	23.56'	15.00'	090°00'00"	15.00'	21.21'	S89°19'32"E
C33	23.56'	15.00'	090°00'00"	15.00'	21.21'	N00°40'28"E
C34	23.56'	15.00'	090°00'00"	15.00'	21.21'	S89°19'32"E
C35	23.56'	15.00'	090°00'00"	15.00'	21.21'	N00°40'28"E
C36	10.58'	150.00'	004°02'34"	5.29'	10.58'	S47°41'45"W
C37	29.84'	150.00'	011°24'01"	14.97'	29.80'	S50°01'31"E
C38	38.68'	28.00'	079°09'12"	23.14'	35.68'	N85°14'44"E
C39	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C40	24.33'	15.00'	092°56'40"	15.79'	21.75'	S02°08'48"W
C41	8.78'	15.00'	033°31'17"	4.52'	8.65'	S22°12'56"E
C42	13.31'	50.00'	015°14'58"	6.69'	13.27'	S55°00'48"E
C43	10.18'	15.00'	038°52'15"	5.29'	9.98'	N24°53'24"W
C44	23.56'	15.00'	090°00'00"	15.00'	21.21'	S89°19'32"E
C45	10.18'	15.00'	038°52'15"	5.29'	9.98'	S26°14'21"W
C46	23.56'	15.00'	090°00'00"	15.00'	21.21'	N00°40'28"E
C47	23.56'	15.00'	090°00'00"	15.00'	21.21'	S89°19'32"E
C48	96.48'	50.00'	110°33'30"	72.15'	82.19'	N62°04'58"E
C49	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C50	23.56'	15.00'	090°00'00"	15.00'	21.21'	S00°40'28"W

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD LENGTH	CHORD BEARING
C51	23.56'	15.00'	090°00'00"	15.00'	21.21'	S89°19'32"E
C52	23.56'	15.00'	090°00'00"	15.00'	21.21'	S00°40'28"W
C53	23.56'	15.00'	090°00'00"	15.00'	21.21'	N00°40'28"E
C54	23.56'	15.00'	090°00'00"	15.00'	21.21'	N89°19'32"W
C55	264.27'	310.00'	048°50'34"	140.76'	256.34'	S73°02'26"W
C56	28.73'	15.00'	109°44'05"	21.32'	24.53'	N27°40'15"W
C57	19.92'	15.00'	076°04'56"	11.74'	18.49'	S54°55'52"W
C58	106.95'	530.00'	011°33'43"	53.66'	106.77'	N87°11'29"E
C59	23.56'	15.00'	090°00'00"	15.00'	21.21'	N00°40'28"E
C60	23.56'	15.00'	090°00'00"	15.00'	21.21'	S89°19'32"E
C61	32.25'	100.00'	018°28'41"	16.27'	32.11'	N36°26'08"E
C62	75.36'	150.00'	028°47'04"	38.49'	74.59'	N31°16'56"E
C63	0.23'	15.00'	000°05'16"	0.11'	0.23'	N45°37'50"E
C64	21.53'	15.00'	082°14'01"	13.09'	19.73'	N86°47'29"E
C65	26.55'	15.00'	101°23'59"	18.33'	23.22'	N05°01'31"W
C66	9.51'	150.00'	003°38'00"	4.76'	9.51'	N53°54'31"W
C67	38.68'	28.00'	079°09'31"	23.15'	35.68'	N06°05'23"E

PLAT PREPARED SEPTEMBER 10, 2021

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 10153600

SHEET 3 OF 3

FOR REFERENCE ONLY

PLAT STATUS: IN REVIEW

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

SUBDIVISION PLAT (3 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

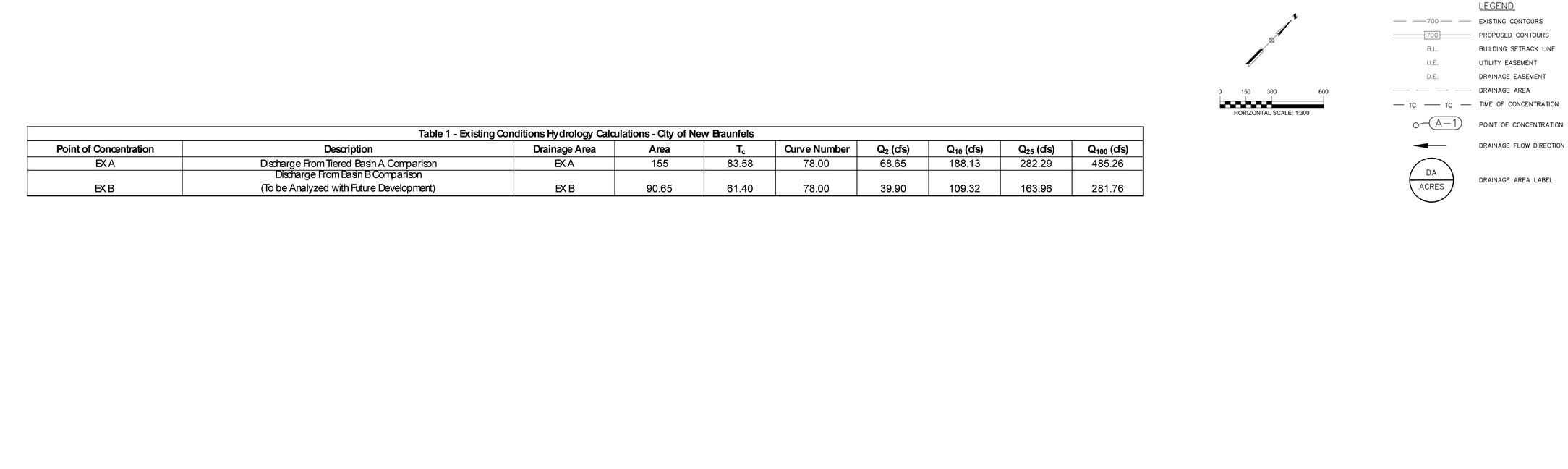
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Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03\337.042_PLAT.dwg User: philpm Dec 06, 2024 - 12:01pm

Table 1 - Existing Conditions Hydrology Calculations - City of New Braunfels									
Point of Concentration	**Description**	**Drainage Area**	**Area**	**T_c**	**Curve Number**	**Q_2 (cfs)**	**Q_{10} (cfs)**	**Q_{25} (cfs)**	**Q_{100} (cfs)**
EX A	Discharge From Tiered Basin A Comparison	EX A	155	83.58	78.00	68.65	188.13	282.29	485.26
EX B	Discharge From Basin B Comparison (To be Analyzed with Future Development)	EX B	90.65	61.40	78.00	39.90	109.32	163.96	281.76



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12/06/2024

EXISTING DRAINAGE AREA MAP

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C1.01

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\CD\337.042_DRNG_EX.dwg User: phlopm Dec 06, 2024 - 12:01pm

Table 3 - Proposed/Ultimate Conditions Hydrology Calculations									
Point of Concentration	**Description**	**Drainage Area**	**Area**	**T_c**	**Curve Number**	**Q_2 (cfs)**	**Q_{10} (cfs)**	**Q_{25} (cfs)**	**Q_{100} (cfs)**
ULT B	Flow Contributing to Basin B	ULT B	53.88	30.31	87	54.84	120.93	169.52	271.61

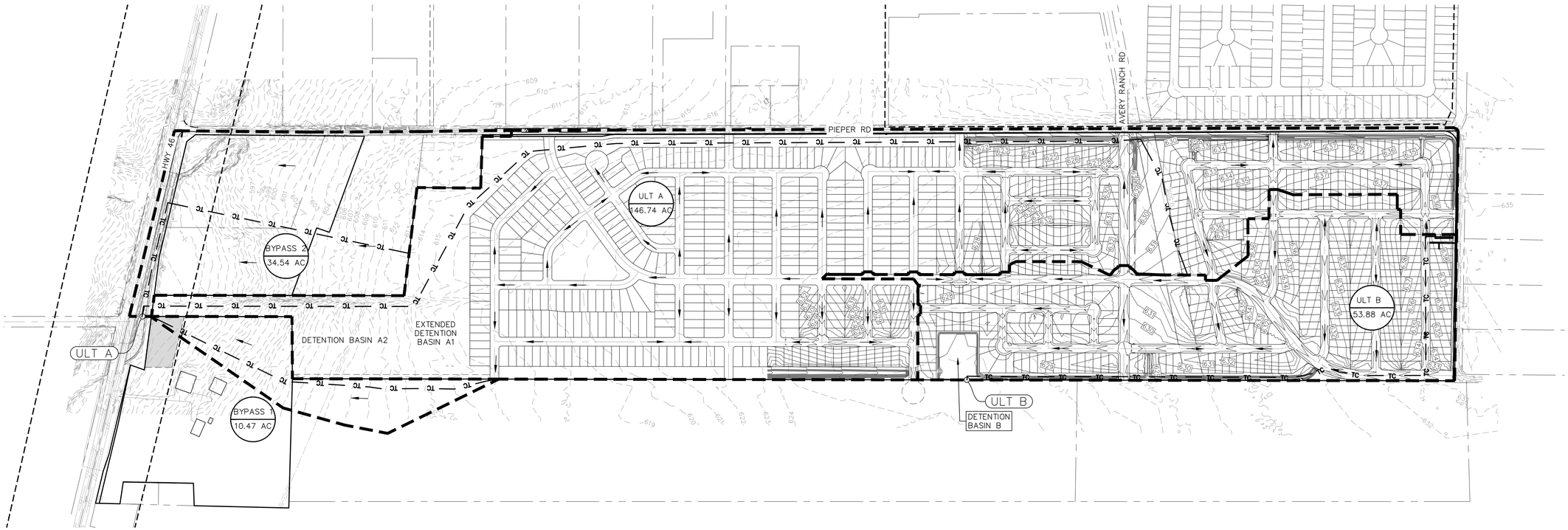
Table 4 - Proposed/Ultimate POC B Comparison Table						
Point of Concentration	**Area ID**	**Description**	**Q_2 (cfs)**	**Q_{10} (cfs)**	**Q_{25} (cfs)**	**Q_{100} (cfs)**
EX-B	EX-B	Pre-Development Flowrates	36.96	109.49	164.21	282.20
ULT B	ULT B	Post-Development Post-Detention Flowrates	19.58	108.98	160.44	261.76
Δ			(17.38)	(0.51)	(3.77)	(20.44)
Δ (%)			-47.02%	-0.47%	-2.30%	-7.24%

Table 5 - Proposed/Ultimate BASIN B Comparison Table						
Point of Concentration	**Area ID**	**Description**	**Q_2 (cfs)**	**Q_{10} (cfs)**	**Q_{25} (cfs)**	**Q_{100} (cfs)**
Contributing to ULT A	BASIN B	Unit 1 Design	21.25	52.12	55.03	57.76
Contributing to ULT A	BASIN B	Unit 4 Design	4.34	4.65	4.78	4.99
Δ			(16.91)	(47.47)	(50.25)	(52.77)
Δ (%)			-79.59%	-91.07%	-91.31%	-91.36%

Table 5 - Detention Basin B Summary Table				
	Q_2	**Q_{10}**	**Q_{25}**	**Q_{100}**
Peak Storage Volume (cuft)	192,475	233,116	251,098	281,608
Pond Release Rate (cfs)	19.58	108.98	160.44	261.76
Water Surface Elevation (ft)	624.76	625.33	625.58	626.00
Water Depth (ft)	3.76	4.33	4.58	5.00
Freeboard (ft)	2.24	1.67	1.42	1.00

0 150 300 600
HORIZONTAL SCALE: 1:300

LEGEND
- 700 EXISTING CONTOURS
- 700 PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- DRAINAGE AREA
- TC TIME OF CONCENTRATION
- A–1 POINT OF CONCENTRATION
- DRAINAGE FLOW DIRECTION
- DA / ACRES DRAINAGE AREA LABEL



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PROPOSED&ULTIMATE DRAINAGE AREA MAP

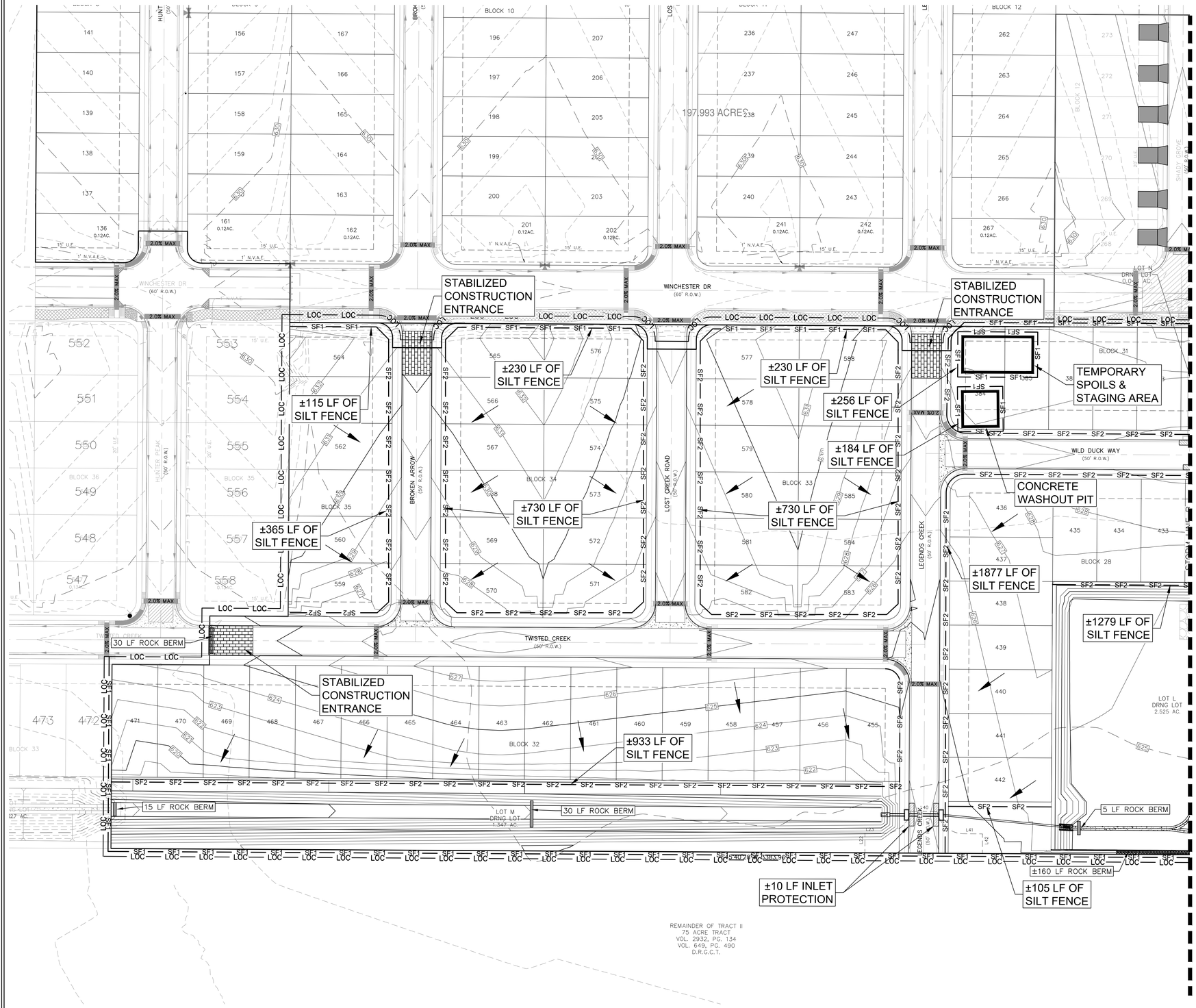
PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C1.02

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cb\337.042_DRNG ULT.dwg User: philipm Dec 06, 2024 - 12:02pm



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- DRAINAGE FLOW DIRECTION
- SF1 SF1 PHASE 1 SILT FENCE
- SF2 SF2 PHASE 2 SILT FENCE
- LOC LOC LIMIT OF CONSTRUCTION
- STABILIZED CONSTRUCTION ENTRANCE
- FILTER DIKE CURB INLET PROTECTION
- TYPE 2 ROCK BERM

SEQUENCE OF CONSTRUCTION

1. INSTALL EROSION CONTROLS PER APPROVED PLAN.
2. TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED WEEKLY AND PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR EROSION CONTROL ISSUES.
3. CONDUCT DEMOLITION ACTIVITIES, IF APPLICABLE.
4. CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.
5. CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION.
6. CONSTRUCT DEVELOPMENT PER APPROVED PLANS.
7. INSTALL STREETSCAPE AND/OR LANDSCAPING IMPROVEMENTS.
8. CONTRACTOR TO VEGETATE ANY DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN OF 70% VEGETATION PRIOR TO COMPLETION.
9. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
10. TPDES REQUIREMENTS – DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY WILL BEGIN AGAIN WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENT) AND SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES IN 21 DAYS, PER TPDES REQUIREMENTS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

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HMT ENGINEERING & SURVEYING
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TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

EROSION CONTROL PLAN (1 OF 3)

PARKSIDE PHASE 5

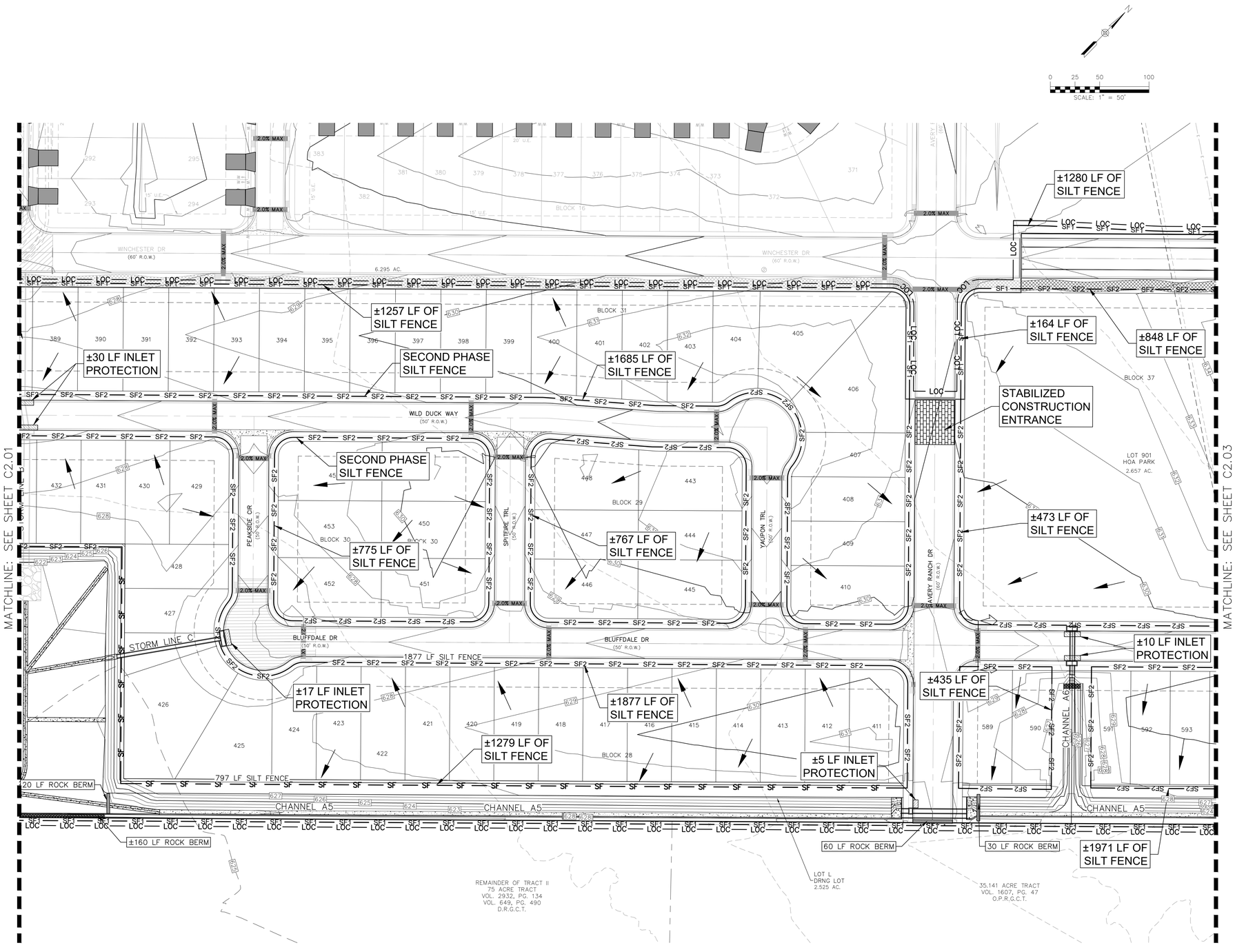
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
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DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

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C2.01

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337.042_EROSION CONTROL PLAN.dwg User: phlipm Dec 06, 2024 - 12:04pm



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- BUILDING SETBACK LINE
- UTILITY EASEMENT
- DRAINAGE EASEMENT
- DRAINAGE FLOW DIRECTION
- PHASE 1 SILT FENCE
- PHASE 2 SILT FENCE
- LIMIT OF CONSTRUCTION
- STABILIZED CONSTRUCTION ENTRANCE
- FILTER DIKE CURB INLET PROTECTION
- TYPE 2 ROCK BERM

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12/06/2024

EROSION CONTROL PLAN (2 OF 3)

PARKSIDE PHASE 5

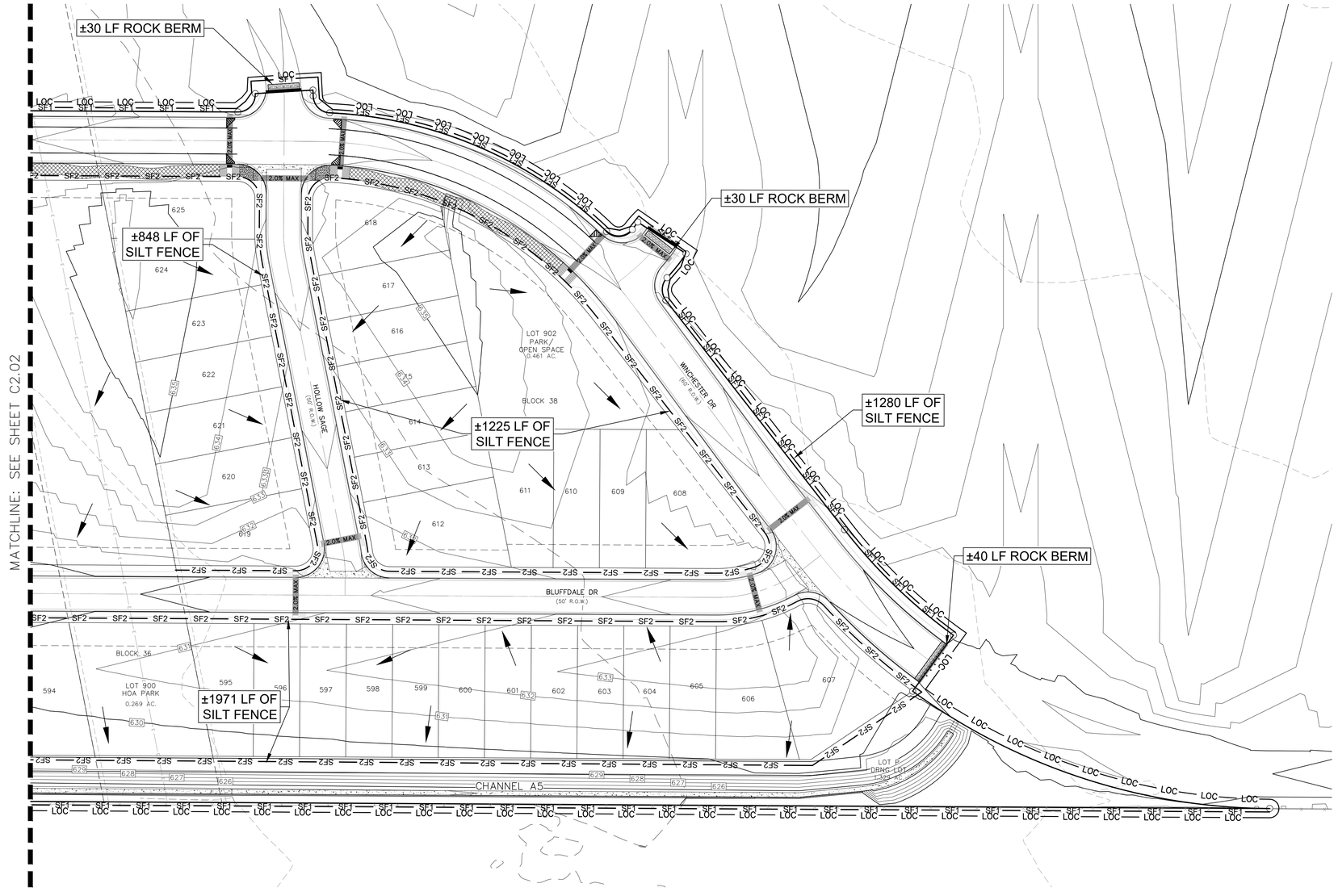
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C2.02

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Civil\337.042_EROSION CONTROL PLAN.dwg User: philipm Dec 06, 2024 - 12:05pm



0 25 50 100
SCALE: 1" = 50'

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- DRAINAGE FLOW DIRECTION
- SF1 PHASE 1 SILT FENCE
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12/06/2024

EROSION CONTROL PLAN (3 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C2.03

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337042_EROSION CONTROL PLAN.dwg User: philipm Dec 06, 2024 - 12:05pm

CONCRETE WASHOUT AREAS

THE PURPOSE OF CONCRETE WASHOUT AREAS IS TO PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE, PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA, AND TRAINING EMPLOYEES AND SUBCONTRACTORS.

THE FOLLOWING STEPS WILL HELP REDUCE STORMWATER POLLUTION FROM CONCRETE WASTES:

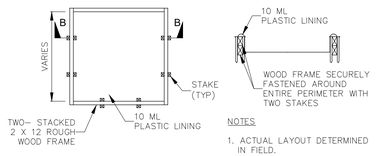
- INCORPORATE REQUIREMENTS FOR CONCRETE WASTE MANAGEMENT INTO MATERIAL SUPPLIER AND SUBCONTRACTOR AGREEMENTS.
- AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE.
- PERFORM WASHOUT OF CONCRETE TRUCKS IN DESIGNATED AREAS ONLY.
- DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
- DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ONSITE, EXCEPT IN DESIGNATED AREAS.

FOR ONSITE WASHOUT:

- LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES, OR WATER BODIES. DO NOT ALLOW RUNOFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.
- WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED PROPERLY.

BELOW GRADE CONCRETE WASHOUT FACILITIES ARE TYPICAL. THESE CONSIST OF A LINED EXCAVATION SUFFICIENTLY LARGE TO HOLD EXPECTED VOLUME OF WASHOUT MATERIAL. ABOVE GRADE FACILITIES ARE USED IF EXCAVATION IS NOT PRACTICAL. TEMPORARY CONCRETE WASHOUT FACILITY (TYPE ABOVE GRADE) SHOULD BE CONSTRUCTED AS SHOWN ON THE DETAILS AT THE END OF THIS SECTION, WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.



PLAN

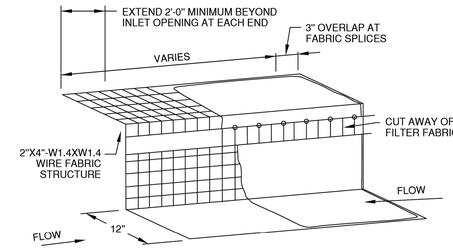
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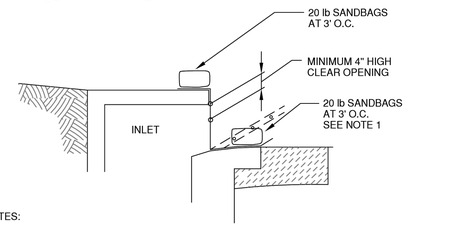
1. ACTUAL LAYOUT DETERMINED IN FIELD.

SECTION B–B

CONCRETE WASHOUT PIT DETAIL

TYPE "ABOVE GRADE"
NOT TO SCALE



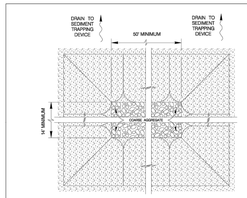


NOTES:

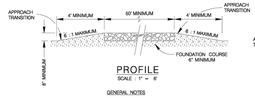
1. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 1" X 4" BOARD SECURED WITH CONCRETE NAILS 3' O.C. NAILED INTO THE GUTTER IN LIEU OF SANDBAGS TO HOLD THE FILTER DIKE IN PLACE. UPON REMOVAL, CLEAN ANY DIRT/DEBRIS FROM NAILING LOCATIONS, APPLY CHEMICAL SANDING AGENT AND APPLY NON-SHRINK GROUT FLUSH WITH SURFACE OF GUTTER.
2. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
3. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
4. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM WATER BEGINS TO OVER-TOP THE CURB.
5. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

NBU
NEW BRAUNFELS UTILITIES
WATER SYSTEMS ENGINEERING

DRAWN BY: H Shadrock
APPROVED BY:
STANDARD DRAWING: **FILTER DIKE CURB INLET PROTECTION**
UPDATED: 4-29-03 | SCALE: N.T.S. | SHEET: 1 OF 1 | DRAWING NO. 505



PLAN
SCALE : 1" = 6'

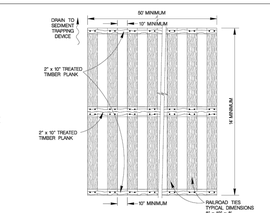


PROFILE
SCALE : 1" = 6'

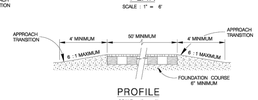
GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 1



PLAN
SCALE : 1" = 6'

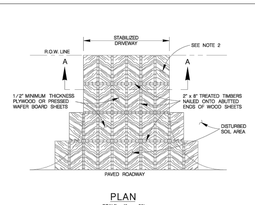


PROFILE
SCALE : 1" = 6'

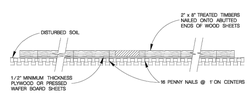
GENERAL NOTES

1. THE LENGTH OF THE TYPE 2 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE TREATED TIMBER PLANKS SHALL BE ATTACHED TO THE RAILROAD TIES WITH 1/2" x 6" MIN. LAG BOLTS. OTHER FASTENERS MAY BE USED AS APPROVED BY THE ENGINEER.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN. AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
6. THE CONSTRUCTION EXIT SHOULD BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 2



PLAN
SCALE : 1" = 20'

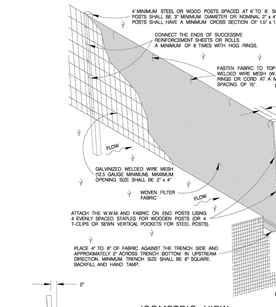


SECTION A–A
SCALE : 1" = 2'

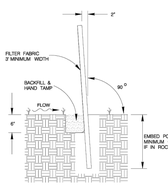
GENERAL NOTES

1. THE LENGTH OF THE TYPE 3 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
2. THE TYPE 3 CONSTRUCTION EXIT MAY BE CONSTRUCTED FROM OPEN GRADED CRUSHED STONE WITH A SIZE OF 2 TO 4 INCHES SPREAD A MINIMUM OF 4 INCHES THICK TO THE LIMITS SHOWN ON THE PLANS.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN. AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT – TYPE 3



ISOMETRIC VIEW
SCALE : 1" = 2'



SECTION C–C
SCALE : 1" = 2'

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUN-OFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM / FT SQUARED. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.

GENERAL NOTES

1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

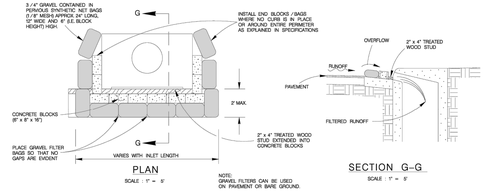
TEMPORARY SEDIMENT CONTROL FENCE

PLAN
SCALE : 1" = 5'

ELEVATION
SCALE : 1" = 5'

NOTE:
STAGGLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER FLUSH WITH OUTSIDE EDGE OF SAG CONFIGURATION.

GRAVEL FILTER BAGS



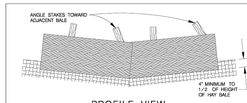
PLAN
SCALE : 1" = 5'

NOTE:
GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.

SECTION G–G
SCALE : 1" = 5'

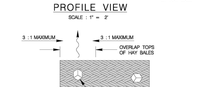
CURB INLET GRAVEL FILTER

JANUARY 2005
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 1
N SUBMITTAL PROJECT NO.: DATE:
DRWN. BY: V. VASQUEZ ORGN. BY: CHKD. BY: SHEET NO.: OF

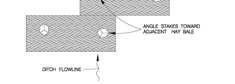


PROFILE VIEW
SCALE : 1" = 2'

PLAN VIEW
SCALE : 1" = 2'



SECTION B–B
SCALE : 1" = 2'



SCALE : 1" = 2'

BALED HAY USAGE GUIDELINES

A BALED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. THE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM / FT SQUARED. THE MAXIMUM CROSS SECTIONAL AREA BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100', IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10 % THE LENGTH OF SLOPE UPSTREAM OF THE BALED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1/2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE FOLLOWING ADDITIONAL CONDITIONAL CONSIDERATIONS APPLY:

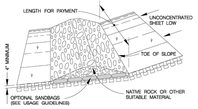
1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOW RATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERLAPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BALED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTEGRITY IS ACCELERATED.

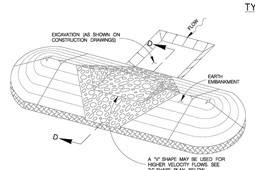
GENERAL NOTES

1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4" AND, WHERE POSSIBLE, ONE-HALF THE HEIGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3 /4" DIA REBAR OR 2" x 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

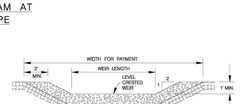
BALED HAY FOR EROSION CONTROL



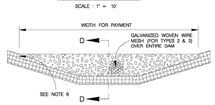
TYPE 1 FILTER DAM AT TOE OF SLOPE
SCALE : 1" = 10'



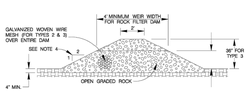
TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 10'



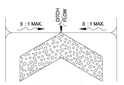
PROFILE OF TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 6'



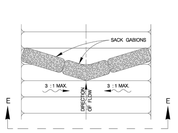
TYPE 1, 2 & 3 FILTER DAM AT CHANNEL SECTIONS
SCALE : 1" = 6'



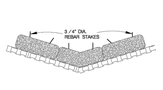
SECTION D–D
SCALE : 1" = 6'



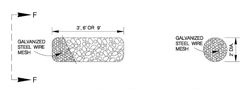
"V" SHAPE PLAN VIEW
NOT TO SCALE



PLAN VIEW
SCALE : 1" = 10'



SECTION E–E
SCALE : 1" = 10'



TYPE 4 SACK GABION DETAIL
SCALE : 1" = 6'

SECTION F–F
SCALE : 1" = 6'

TYPE 4 FILTER DAM AT DITCHES & SMALLER CHANNELS PLAN VIEW

ROCK FILTER DAMS

ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO FILTER SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED AND SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 60 GPM / FT SQUARED OF CROSS SECTIONAL AREA. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1, 08" HIGH, WITH NO WIRE MESH:

TYPE 1 MAY BE USED AT THE TOE OF SLOPES AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED FLOW OR IN STREAM FLOW AREAS. IN THESE AREAS, TYPE 2 OR 3 WITH APPROPRIATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TYPE 2, 08" HIGH, WITH WIRE MESH:

TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3, 08" HIGH, WITH WIRE MESH:

TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4, (SACK GABIONS):

TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED UPSTREAM AND / OR DOWNSTREAM AT DRAINAGE STRUCTURES AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLANS.
4. SIDE SLOPES SHOULD BE 2 : 1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6 : 1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO THE EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 6" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SIZE SHALL BE 4" TO 8". THE WIRE MESH SHALL BE 24" WIDE MINIMUM. THE WIRE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3 /4" DIA REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

JANUARY 2005
CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 2
N SUBMITTAL PROJECT NO.: DATE:
DRWN. BY: V. VASQUEZ ORGN. BY: CHKD. BY: SHEET NO.: OF

LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
	DRAINAGE FLOW DIRECTION
SF1 SF1	SILT FENCE
LOC LOC	LIMIT OF CONSTRUCTION
	STABILIZED CONSTRUCTION ENTRANCE
	FILTER DIKE CURB INLET PROTECTION
	ROCK BERM

SEQUENCE OF CONSTRUCTION

1. INSTALL EROSION CONTROLS PER APPROVED PLAN.
2. TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED WEEKLY AND PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR EROSION CONTROL ISSUES.
3. CONDUCT DEMOLITION ACTIVITIES, IF APPLICABLE.
4. CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.
5. CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION.
6. CONSTRUCT DEVELOPMENT PER APPROVED PLANS.
7. INSTALL STREETSCAPE AND/OR LANDSCAPING IMPROVEMENTS.
8. CONTRACTOR TO VEGETATE ANY DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN OF 70% VEGETATION PRIOR TO COMPLETION.
9. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
10. TPDES REQUIREMENTS – DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY WILL BEGIN AGAIN WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENT) AND SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES IN 21 DAYS, PER TPDES REQUIREMENTS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24–HOURS PRIOR TO COMMENCING CONSTRUCTION.

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

EROSION DETAILS (1 OF 2)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C2.04

Drawing Name: M:_Projects\337 – Lennar Homes\042 – Parkside Unit 5\C3d\337.042_EROSION CONTROL PLAN.dwg User: philpm Dec 06, 2024 – 12:05pm

SILT FENCE

MATERIALS:

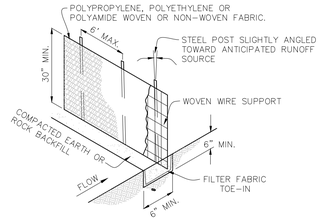
1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC WIDTH SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN2, ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NO. 30.
2. 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/FT2, AND BRINDELL HARDNESS EXCEEDING 140.
3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

INSTALLATION:

1. 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-- FOOT DEEP AND SPACED NOT MORE THAN 8 FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6 FEET.
2. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT THE MAXIMUM DRAINAGE AREA IS ¼ ACRE/100 FEET OF FENCE.
3. 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 SEEPING UNDER FENCE.
4. 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.
5. 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.
6. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

INSPECTION AND MAINTENANCE GUIDELINES:

1. INSPECT ALL FENCING WEEKLY, AND AFTER ANY RAINFALL.
2. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.
3. REPLACE ANY TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL TO THE TORN SECTION.
4. REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY. IF A SECTION OF FENCE IS OBSTRUCTING VEHICULAR ACCESS, CONSIDER RELOCATING IT TO A SPOT WHERE IT WILL PROVIDE EQUAL PROTECTION, BUT WILL NOT OBSTRUCT VEHICLES. A TRIANGULAR FILTER DIKE MAY BE PREFERABLE TO A SILT FENCE AT COMMON VEHICLE ACCESS POINTS.
5. WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL.

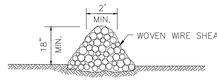


PERSPECTIVE VIEW

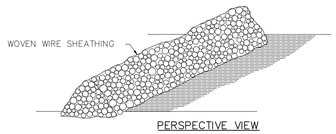
SILT FENCE DETAIL
NOT TO SCALE

ROCK BERM

1. USE ONLY OPEN GRADED ROCK 3-5" DIAMETER.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1" OPENINGS AND MINIMUM WIRE DIAMETER OF 20 GAUGE.
3. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN WIRE SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO 6", THE SILT WILL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CREATE A SILTATION PROBLEM.
5. DAILY INSPECTION SHALL BE MADE ON SEVERE SERVICE ROCK BERMS
6. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.



SECTION VIEW



PERSPECTIVE VIEW

ROCK BERM DETAIL
NOT TO SCALE

STABILIZED CONSTRUCTION ENTRANCE / EXIT

MATERIALS:

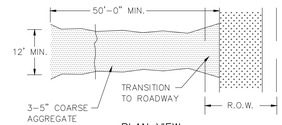
1. THE AGGREGATE SHOULD CONSIST OF 3 TO 5 INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN.
2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF 8 INCHES.
3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD2, A MULLEN BURST RATING OF 140 LB/IN2, AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.
4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4 INCH DIAMETER WASHED STONE OR COMMERCIAL RACK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OR BASIN.

INSTALLATION:

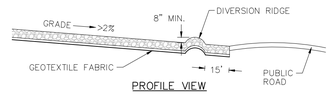
1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.
2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.
3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.
4. 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.
5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.
6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.
7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.
8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

INSPECTION AND MAINTENANCE GUIDELINES:

1. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR LOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
3. WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
4. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.



PLAN VIEW



PROFILE VIEW

CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
	DRAINAGE FLOW DIRECTION
SF1 SF1	SILT FENCE
LOC LOC	LIMIT OF CONSTRUCTION
	STABILIZED CONSTRUCTION ENTRANCE
	FILTER DIKE CURB INLET PROTECTION
	ROCK BERM

SEQUENCE OF CONSTRUCTION

1. INSTALL EROSION CONTROLS PER APPROVED PLAN.
2. TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED WEEKLY AND PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR EROSION CONTROL ISSUES.
3. CONDUCT DEMOLITION ACTIVITIES, IF APPLICABLE.
4. CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.
5. CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION.
6. CONSTRUCT DEVELOPMENT PER APPROVED PLANS.
7. INSTALL STREETSCAPE AND/OR LANDSCAPING IMPROVEMENTS.
8. CONTRACTOR TO VEGETATE ANY DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN OF 70% VEGETATION PRIOR TO COMPLETION.
9. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
10. TPDES REQUIREMENTS - DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY WILL BEGIN AGAIN WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENT) AND SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES IN 21 DAYS, PER TPDES REQUIREMENTS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

EROSION DETAILS (2 OF 2)

PARKSIDE PHASE 5

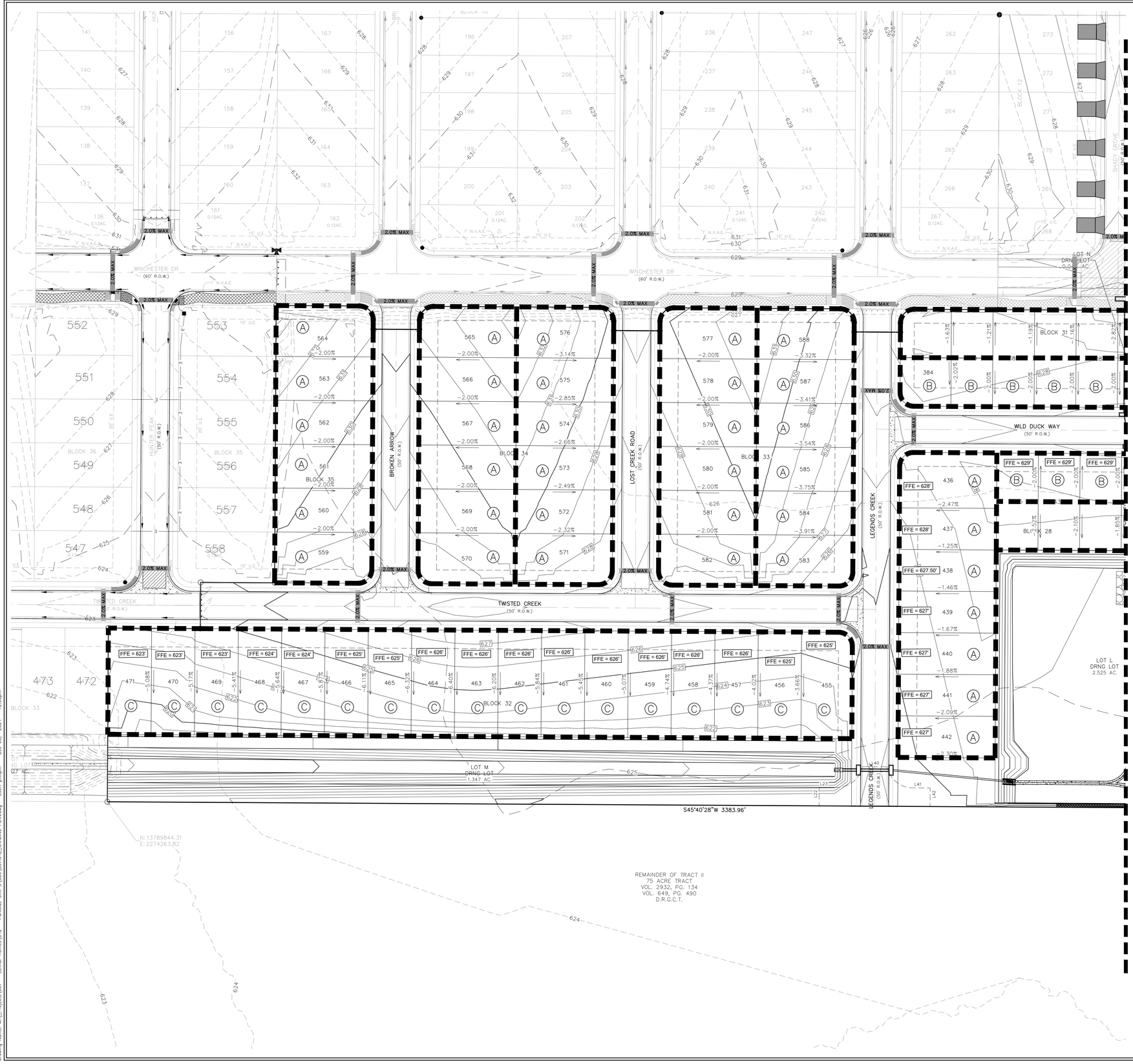
NO.	REVISION DESCRIPTION	REVISION DATE

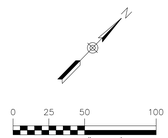
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C2.05

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cds\337.042_EROSION CONTROL PLAN.dwg User: philipm Dec 06, 2024 - 12:05pm





LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
A	LOT GRADING SEE DETAILS SHEET **9**
	DRAINAGE FLOW DIRECTION
FF=XXX.X	MINIMUM FINISHED FLOOR ELEVATION

NOTES:

1. DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE OFFSITE IMPACT OF CONSTRUCTION MUST BE COMPLETED AND IN PLACE PRIOR TO ADDING IMPERVIOUS COVER TO THE SITE.
2. ALL FINISHED FLOOR ELEVATIONS SHALL MEET THE FOLLOWING REQUIREMENTS:
   2.A. PER NOTE 13 ON PLAT SHEET C1.01.
   2.B. HUD DETAILS SHOWN ON SHEET C3.04.
3. WHEN POSSIBLE, CONTRACTOR SHALL PHASE GRADING SO AS TO EXPOSE THE MINIMUM AMOUNT OF AREA TO SOIL EROSION FOR THE SHORTEST PERIOD OF TIME.
4. FOR ANY LOTS ADJACENT TO A DRAINAGE STRUCTURE, HOME BUILDER TO ENSURE FINISHED FLOOR HAS A MINIMUM ELEVATION AS LABELED OR AS PER NOTE 2 ABOVE, WHICHEVER IS GREATER.
5. STRIPPING OF VEGETATION FROM PROJECT SITES SHALL BE PHASED SO AS TO EXPOSE THE MINIMUM AMOUNT OF AREA TO SOIL EROSION FOR THE SHORTEST POSSIBLE PERIOD OF TIME PER THE NEW BRAUNFELS DRAINAGE AND EROSION CONTROL DESIGN MANUAL SEC. 12.2(N).

REFER TO THE COVER SHEET
FOR BENCHMARK INFORMATION.

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NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

GRADING PLAN (1 OF 3)

PARKSIDE PHASE 5

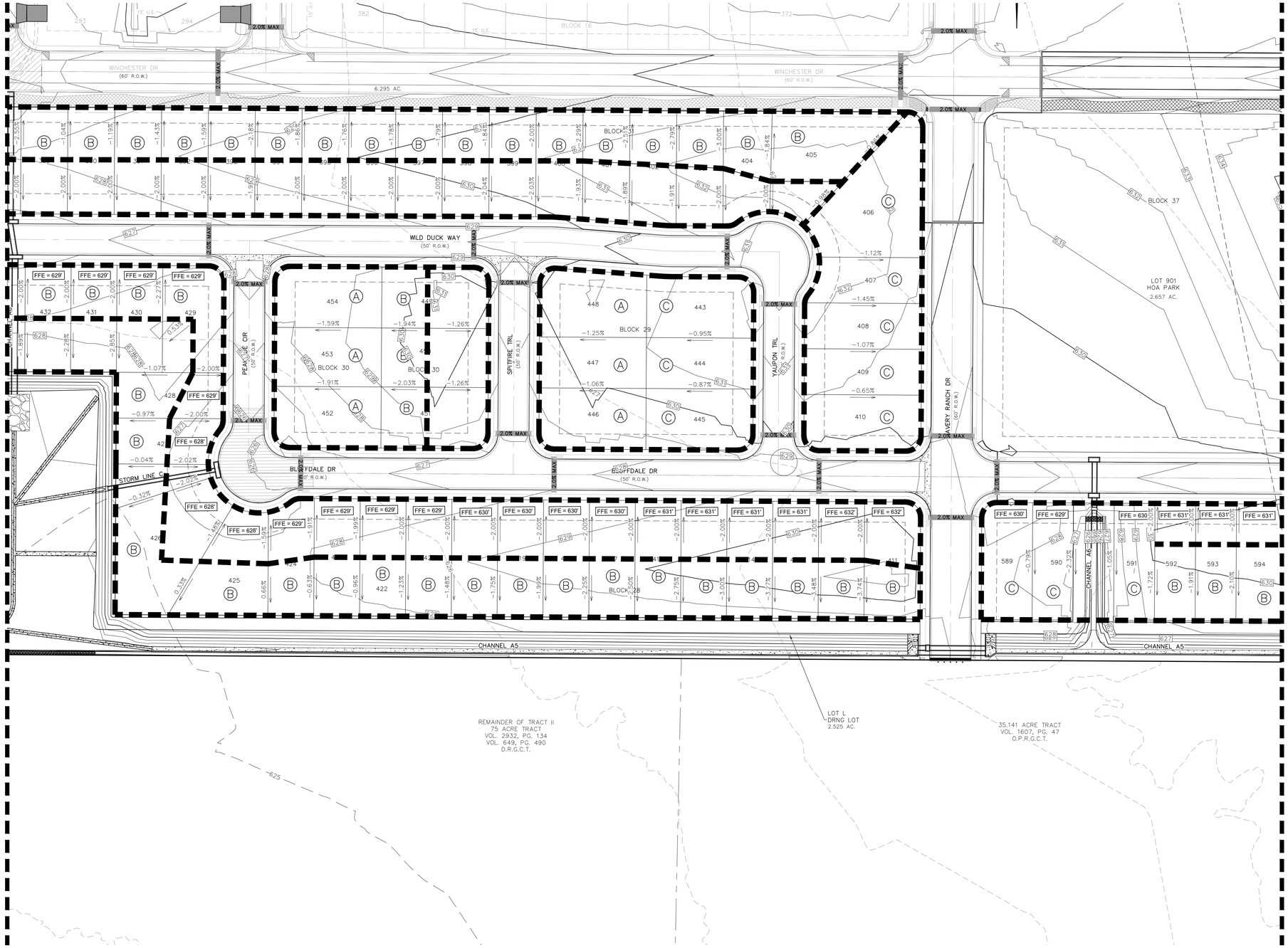
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C3.01

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\C05\337.042_GRADING PLAN.dwg User: philipm Dec 06, 2024 - 12:06pm



LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
(A)	LOT GRADING SEE DETAILS SHEET **9**
→	DRAINAGE FLOW DIRECTION
FF=XXX.X	MINIMUM FINISHED FLOOR ELEVATION

NOTES:

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   2.A. PER NOTE 13 ON PLAT SHEET C1.01.
   2.B. HUD DETAILS SHOWN ON SHEET C3.04.
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4. FOR ANY LOTS ADJACENT TO A DRAINAGE STRUCTURE, HOME BUILDER TO ENSURE FINISHED FLOOR HAS A MINIMUM ELEVATION AS LABELED OR AS PER NOTE 2 ABOVE, WHICHEVER IS GREATER.
5. STRIPPING OF VEGETATION FROM PROJECT SITES SHALL BE PHASED SO AS TO EXPOSE THE MINIMUM AMOUNT OF AREA TO SOIL EROSION FOR THE SHORTEST POSSIBLE PERIOD OF TIME PER THE NEW BRAUNFELS DRAINAGE AND EROSION CONTROL DESIGN MANUAL SEC. 12.2(N).

REFER TO THE COVER SHEET
FOR BENCHMARK INFORMATION.

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TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

GRADING PLAN (2 OF 3)

PARKSIDE PHASE 5

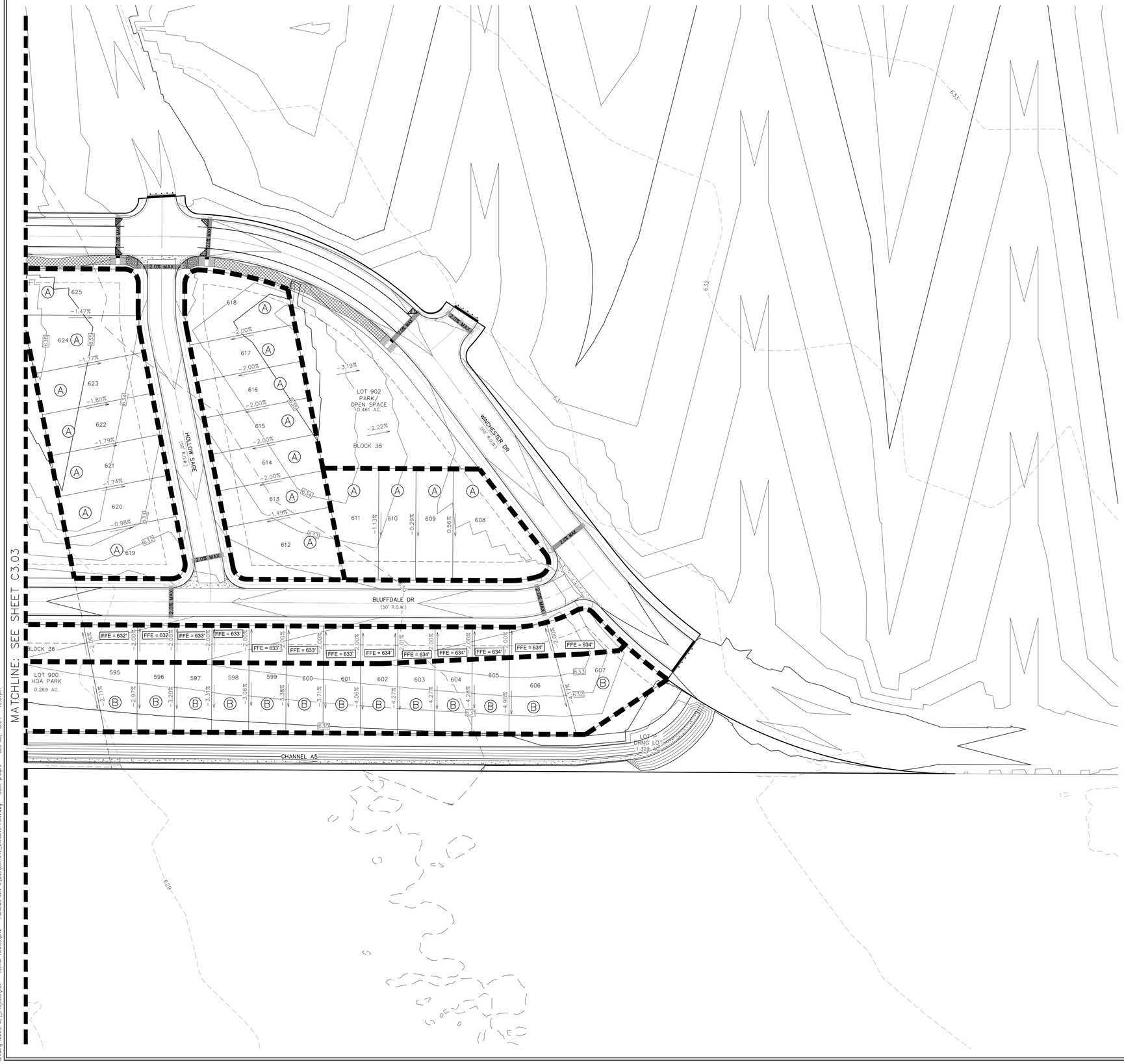
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C3.02

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337042_GRADING PLAN.dwg User: philipm Dec 06, 2024 - 12:06pm



0 25 50 100
SCALE: 1" = 50'

LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
A	LOT GRADING SEE DETAILS SHEET **9**
	DRAINAGE FLOW DIRECTION
FF=XXX.X	MINIMUM FINISHED FLOOR ELEVATION

NOTES:

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2. ALL FINISHED FLOOR ELEVATIONS SHALL MEET THE FOLLOWING REQUIREMENTS:
   2.A. PER NOTE 13 ON PLAT SHEET C1.01.
   2.B. HUD DETAILS SHOWN ON SHEET C3.04.
3. WHEN POSSIBLE, CONTRACTOR SHALL PHASE GRADING SO AS TO EXPOSE THE MINIMUM AMOUNT OF AREA TO SOIL EROSION FOR THE SHORTEST PERIOD OF TIME.
4. FOR ANY LOTS ADJACENT TO A DRAINAGE STRUCTURE, HOME BUILDER TO ENSURE FINISHED FLOOR HAS A MINIMUM ELEVATION AS LABELED OR AS PER NOTE 2 ABOVE, WHICHEVER IS GREATER.
5. STRIPPING OF VEGETATION FROM PROJECT SITES SHALL BE PHASED SO AS TO EXPOSE THE MINIMUM AMOUNT OF AREA TO SOIL EROSION FOR THE SHORTEST POSSIBLE PERIOD OF TIME PER THE NEW BRAUNFELS DRAINAGE AND EROSION CONTROL DESIGN MANUAL SEC. 12.2(N).

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12/06/2024

GRADING PLAN (3 OF 3)

PARKSIDE PHASE 5

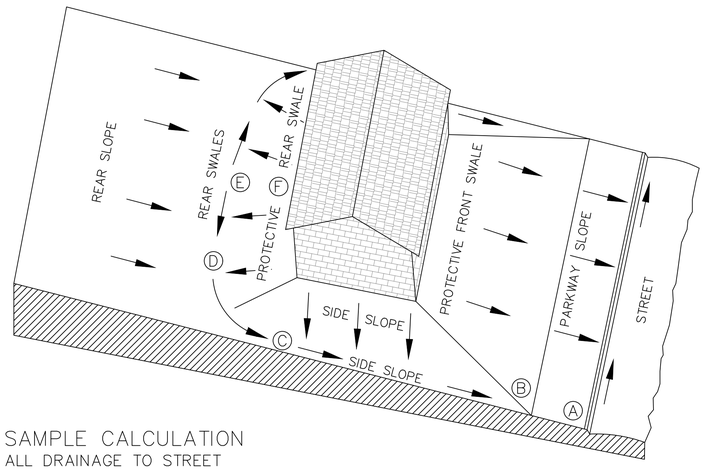
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C3.03

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SAMPLE CALCULATION
ALL DRAINAGE TO STREET

SAMPLE COMPUTATION OF GRADING CONTROL LINE AF FOR A 60' WIDE LOT WITH A 25' BUILDING LINE, 0.5% STREET, WITH 60' BUILDING DEPTH AND 2% SWALES.				RESULTS OF 1% SWALES	
A	CURB–TOP ON LOT LINE EXTENSION AT HIGH LOT CORNER				
$\overline{AB}$	PARKWAY SLOPE: 15' GRASS AND WALK AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')
$\overline{BC}$	SIDE SWALE: 85' GRASS AT 1/4"/FT. (2%)	21"	(1.8')	11"	(0.9')
$\overline{CD}$	SWALE TURN WITH 10' RADIUS:16' GRASS AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')
$\overline{DE}$**	REAR SWALE: 13' GRASS AT 1/4"/FT. (2%)	3"	(0.3')	2"	(0.2')
$\overline{EF}$*	PROTECTIVE REAR SLOPE UP FROM HIGH POINT OF SWALES	3"	(0.3')	3"	(0.3')
SUB–TOTAL $\overline{AF}$ FROM CURB TOP TO GROUND AT REAL BLDG WALL		35"	(3.0')	20"	(1.7')
MINIMUM RISE FROM CURB TOP TO SLAB FLOOR: 35" + 8"		43"	(3.6')	28"	(2.3')
MINIMUM RISE FOR WOOD FLOOR USING 8" JOISTS: 35" + 9"		54"	(4.5')	39"	(3.3')

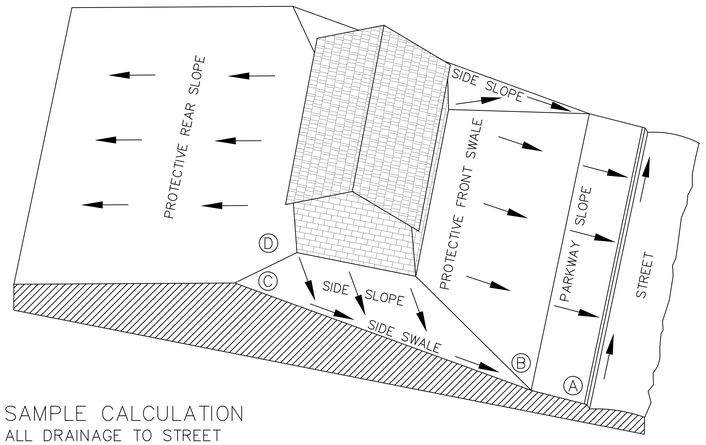
CALCULATIONS FOR 2% SWALES

15 x 0.25' = 3¾"
85 x 0.25' = 21¼"
16 x 0.25' = 4"
13 x 0.25' = 3¼"
10 x 0.25' = 2½"
34¾"

CALCULATIONS USE 0.25" PER FOOT GRADIENT FOR A 2% SWALE.

* WHERE THERE IS A HIGH BANK NEARBY OR A LONG SLOPE TOWARD HOUSE, A MINIMUM 6" PROTECTIVE SLOPE IS REQUIRED.

** LENGTH $\overline{DE}$ = [1/2(LOT WIDTH – (2x SWALE TURN RADIUS))] – [LOT WIDTH x (STREET GRADIENT x SWALE GRADIENT)]



SAMPLE CALCULATION
ALL DRAINAGE TO STREET

SAMPLE COMPUTATION OF GRADING CONTROL LINE AF FOR A 60' WIDE LOT WITH A 25' BUILDING LINE, 0.5% STREET, WITH 60' BUILDING DEPTH AND 2% SWALES.				RESULTS OF 1% SWALES	
A	CURB–TOP ON LOT LINE EXTENSION AT HIGH LOT CORNER				
$\overline{AB}$	PARKWAY SLOPE: 15' GRASS AND WALK AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')
$\overline{BC}$	SIDE SWALE: 85' GRASS AT 1/4"/FT. (2%)	21"	(1.8')	11"	(0.9')
$\overline{CD}$*	PROTECTIVE SIDE SLOPE @ REAR BLDG. WALL EXTENSION	3"	(0.3')	3"	(0.3')
SUB–TOTAL $\overline{AD}$ FROM CURB TOP TO GROUND AT REAL BLDG WALL		27"	(2.4')	16"	(1.4')
MINIMUM RISE FROM CURB TOP TO SLAB FLOOR: 27" + 8"		35"	(2.9')	24"	(2.0')
MINIMUM RISE FOR WOOD FLOOR USING 8" JOISTS: 35" + 9"		46"	(3.8')	35"	(2.9')

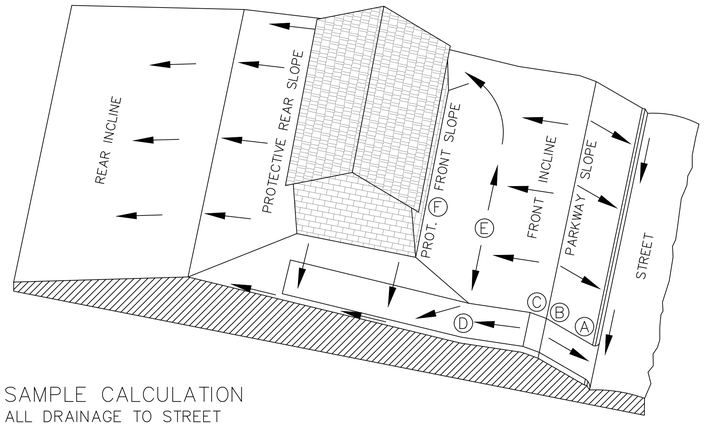
CALCULATIONS FOR 2% SWALES

15 x 0.25' = 3¾"
85 x 0.25' = 21¼"
6 x 0.25' = 1½"
26½"

CALCULATIONS USE 0.25" PER FOOT GRADIENT FOR A 2% SWALE.

* WHERE THERE IS A HIGH BANK NEARBY OR A LONG SLOPE TOWARD HOUSE, A MINIMUM 6" PROTECTIVE SLOPE IS REQUIRED.

* WHERE THERE IS A HIGH BANK NEARBY OR A LONG SLOPE TOWARD HOUSE, A MINIMUM 6" PROTECTIVE SLOPE IS REQUIRED.



SAMPLE CALCULATION
ALL DRAINAGE TO STREET

SAMPLE COMPUTATION OF GRADING CONTROL LINE $\overline{AF}$ FOR A 60' WIDE LOT WITH A 25' BUILDING LINE, 13.5% DRIVEWAY, AND 16' FRONT SWALE $\overline{DE}$ AT 2.0%.				RESULTS OF 1% SWALES	
A	CURB–TOP HIGH SIDE OF DRIVE NEAR LOW LOT CORNER				
$\overline{AB}$	PARKWAY SLOPE: 15' GRASS AND WALK AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')
$\overline{BC}$	DRIVEWAY GRADE CHANGE: 4' VERTICAL CURVE FROM UP–GRADE DRIVE IN STREET TO DOWN–GRADE DRIVE ON LOT	0"	(0.0')	0"	(0.0')
$\overline{CD}$	DRIVEWAY DOWN–GRADE TO POINT 10 FEET OUT FROM FRONT OF BUILDING: –11' AT 1⅜"/FT (13.5%)	–18"	(–1.5')	–18"	(–1.5')
$\overline{DE}$	FRONT SWALE: 16' GRASS AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')
$\overline{EF}$*	PROT. FRONT SLOPE UP FROM HIGH POINT OF SWALES	3"	(0.3')	3"	(0.3')
SUB–TOTAL $\overline{AF}$ FROM CURB TOP TO GROUND AT FRONT BLDG WALL		–7"	(–1.0')	–11"	(1.3')
MINIMUM RISE FROM CURB TOP TO SLAB FLOOR: –7" + 8"		1"	(–0.3')	–3"	(0.7')
MINIMUM RISE FOR WOOD FLOOR USING 8" JOISTS: –7" + 19"		12"	(–0.6')	8"	(0.3')

CALCULATIONS FOR SWALES

15 x 0.25' = 3¾"
0 x 0.25' = 0"
–11 x 1.625' = –17⅞"
16 x 0.25' = 4"
10 x 0.25' = 2½"
–7½"

CALCULATION:

USE 0.25" PER FOOT GRADIENT FOR A 2% SWALE.

USE 1.625" PER FOOT GRADIENT FOR A 13.5% SWALE.

* WHERE THERE IS A HIGH BANK NEARBY OR A LONG SLOPE TOWARD HOUSE, A MINIMUM 6" PROTECTIVE SLOPE IS REQUIRED.

LOT TYPE Ⓐ

LOT TYPE Ⓑ

LOT TYPE Ⓒ

GENERAL SPECIFICATIONS FOR SITE PREPARATION

GENERAL DESCRIPTION
THIS 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 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 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 THD–TEX–113–E COMPACTION PROCEDURE. ALL AREAS EXCEEDING (6") SIX INCHES IN DEPTH, MUST MEET WITH FHA/HUD HANDBOOK 4140.30 SPECIFICATIONS FOR LAND DEVELOPMENTS ON CONTROLLED EARTHWORK, DATASHEET 79G.

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 COMAPCTION EQUIPMENT OF THE DEMONSTRATED CAPABILITY.

ROCK
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.

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).

COMPACTION OF SLOPES
THE FACES OF FILL SLOPES SHALL BE COMPACTED. COMPACTING OPERATIONS SHALL BE CONTINUED UNTIL THE SLOPE FACES ARE STABLE BUT NOT TO DENSE FOR PLANTING ON THE SLOPES. COMPACTION OF THE SLOPE FACE MAY BE DONE PROGRESSIVELY IN INCREMENTS OF THREE TO FIVE FEET (3' TO 5') IN FILL HEIGHT AS THIS FILL PROGRESSES OR AFTER THE FILL HAS BEEN BROUGHT TO ITS TOTAL HEIGHT.

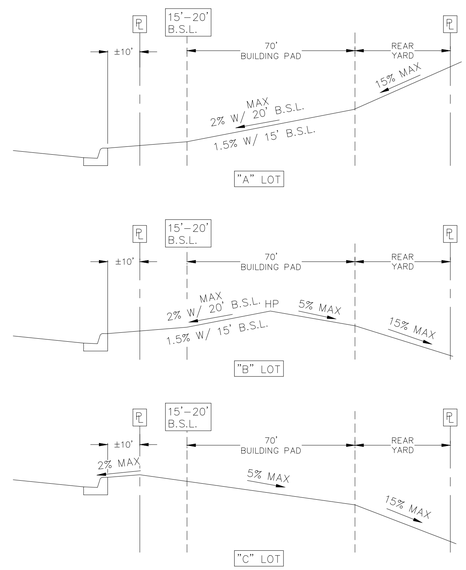
DENSITY TEST
FIELD DENSITY TESTS SHALL BE PERFORMED ON ALL LAYERS OF FILL WHEN THE FILL IS BEING PLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MAXIMUM FILL HEIGHT BETWEEN DENSITY TESTING SHALL BE TWELVE INCHES (12"). ALL TESTING SHALL BE REQUESTED BY THE CONTRACTOR TO MEET THE CONTRACTOR'S CONSTRUCTION SCHEDULE. NOTIFICATION BY THE CONTRACTOR TO CONDUCT TESTS SHALL BE AT LEAST THE DAY BEFORE. THIS NOTIFICATION SHALL INCLUDE THE FILL AREA LOCATION (LOT AND BLOCK), THE LIFT OR HEIGHT OF FILL AND APPROXIMATED DESIRED TIME OF TESTING. WHEN THESE TEST INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE REQUIRED DENSITY, THE PARTICULAR LAYER OR PORTION SHALL BE REWORKED AND RETESTED AT THE EXPENSE OF THE CONTRACTOR UNLESS THE CONTRACTOR CAN SHOW EVIDENCE THAT CIRCUMSTANCES BEYOND HIS CONTROL REQUIRED THE RETESTING. GENERALLY, THE SPECIFIC TESTING WILL BE AS FOLLOWS AND CONDUCTED BY A GEO–TECHNICAL ENGINEER OR STAFF.

1. THE LAND TO BE FILLED (PREPARED SUBGRADE) SHALL BE PREPARED AND TESTED AT A FREQUENCY AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
2. THE FIRST LIFT OF COMPACTED FILL (GENERALLY 8–12 IN.) SHALL BE TESTED AS DETERMINED BY THE GEOTECHNICAL ENGINEER. ANY AREAS SUPPORTING THE PROPOSED STRUCTURES REQUIRING FILL SHALL BE TESTED FOR DENSITY COMPLIANCE.
3. FILLS SHALL BE TESTED AT A MAXIMUM OF EACH TWELVE INCHES (12") OF FILL.
4. TEST RESULTS WILL BE PROVIDED BY THE FIELD TECHNICIAN TO THE CONTRACTOR WHEN POSSIBLE: HOWEVER, ALL TEST RESULTS ARE TO BE REVIEWED BY THE GEOTECHNICAL ENGINEER FOR COMPLIANCE. THE ENGINEER WILL NOTIFY THE CONTRACTOR OF ALL TEST RESULTS.

CUT/FILL LOTS
AREAS INVOLVING CUT ON THE PORTION AND FILL ON ANOTHER PORTION OF A SPECIFIC LOT SHALL BE PREPARED TO A MINIMUM DEPTH OF 6 IN., AND WILL BE THE SAME MATERIAL CLASSIFICATION AT THE SAME COMPACTION AND MOISTURE CONTENT. FIELD DENSITY TESTS SHALL BE REQUIRED ON EACH CUT/FILL LOT FOR THE PURPOSE OF DETERMINING UNIFORMITY OF THE AREA SUPPORTING THE PROPOSED STRUCTURES.

HUD 79–G
HUD 79–G REQUIREMENT FOR FILL MATERIAL OF 6 INCHES AND MORE WILL BE CONDUCTED. ALL CUT AREAS WILL ALSO MEET THE REQUIREMENTS FOR HUD 79–G COMPACTION TESTING. IN ADDITION, ENGINEERS MUST PROVIDE VERIFICATION OF ALL AREAS WHICH DO NOT REQUIRE HUD 79–G. AFTER SITE GRADING IS COMPLETED, GEO–TECHNICAL ENGINEER SHALL PROVIDE THE CONTRACTOR AND OWNER A 79–G LETTER.

DRAINAGE NOTE
FINISHED FLOOR ELEVATIONS
THE ELEVATION OF THE LOWEST FLOOR SHALL BE AT LEAST 10 INCHES ABOVE THE FINISHED GRADE OF THE SURROUNDING GROUND, WHICH SHALL BE SLOPED IN A FASHION SO AS TO DIRECT STORMWATER AWAY FROM THE STRUCTURE. PROPERTIES ADJACENT TO STORMWATER CONVEYANCE STRUCTURES MUST HAVE FLOOR SLAB ELEVATION OR BOTTOM OF FLOOR JOISTS A MINIMUM OF ONE FOOT ABOVE THE 100–YEAR WATER FLOW ELEVATION IN THE STRUCTURE. DRIVEWAYS SERVING HOUSES ON THE DOWNHILL SIDE OF THE STREET SHALL HAVE A PROPERLY SIZED CROSS SWALE PREVENTING RUNOFF FROM ENTERING THE GARAGE.



LENNAR LOT GRADING STANDARDS

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600
HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

GRADING DETAILS

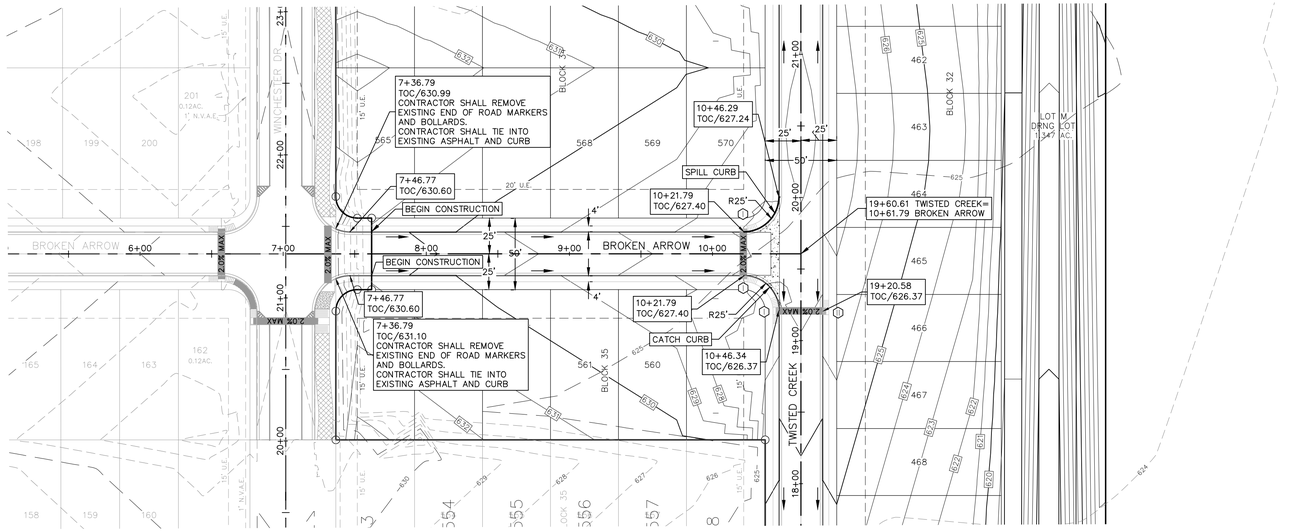
PARKSIDE PHASE 5

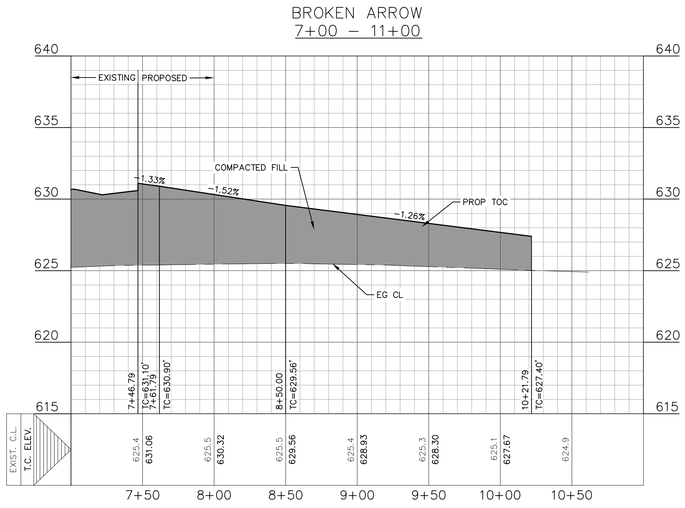
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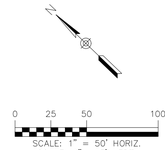
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C3.04

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\CDs\337.042_GRADING PLAN.dwg User: philipm Dec 06, 2024 - 12:07pm







LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- SPILL CURB
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)
- 2.0% MAX — ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE TO BE CONSTRUCTED AT TIME OF STREET CONSTRUCTION (SEE DETAIL SHEET **C4.17**)
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR

NOTES

1. LOCAL STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF 25 MPH.
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3. CONTRACTOR TO CONSTRUCT SIDEWALK RAMPS WITH STREETS.
4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM STREET STUB OUT ENDS SO THAT NO "PONDING" OF WATER OCCURS.
5. PER NEW BRAUNFELS ORDINANCE SEC. 114-98(a)(6) ALL DRIVEWAY LOCATED ON A SINGLE FAMILY RESIDENCE ON A LOCAL STREET SHALL HAVE A MINIMUM SPACING OF 20'

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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

BROKEN ARROW PLAN & PROFILE

PARKSIDE PHASE 5

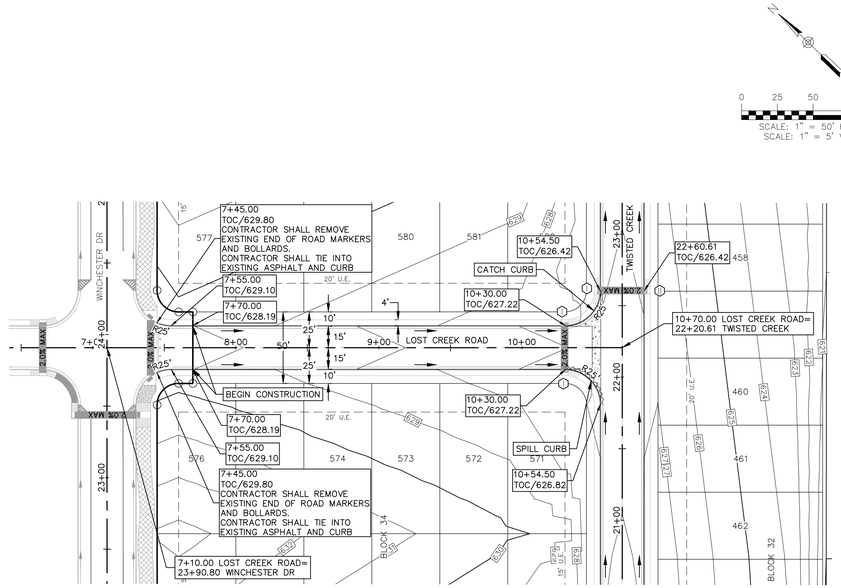
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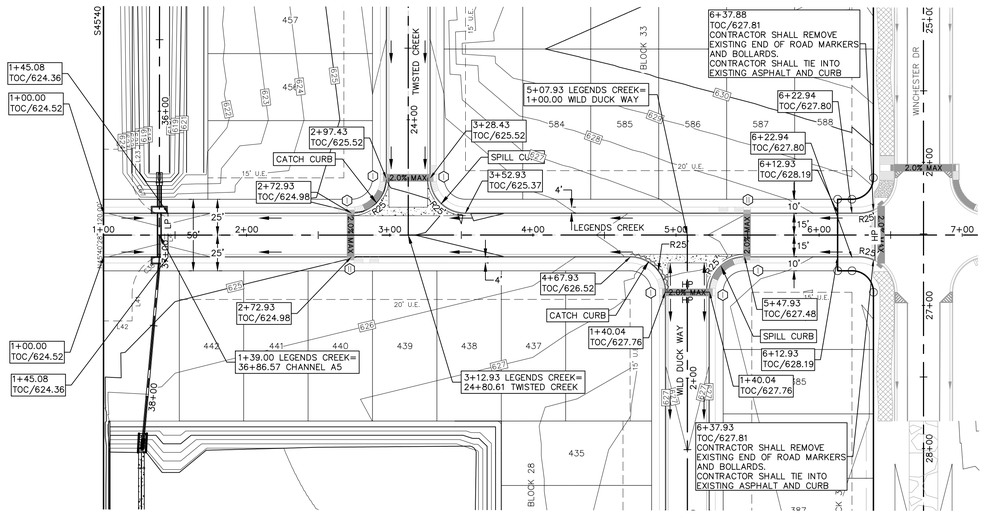
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DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.01

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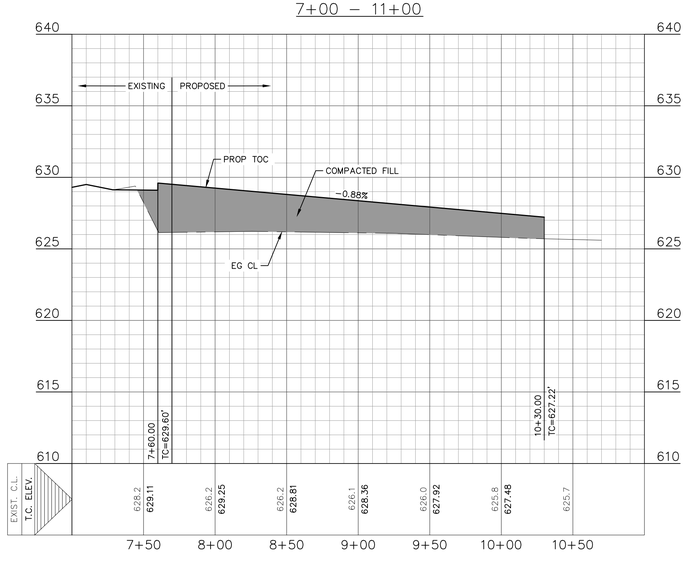
LEGEND

- EXISTING CONTOURS (700)
- PROPOSED CONTOURS (700)
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- SPILL CURB
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)
- 2.0% MAX — ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE TO BE CONSTRUCTED AT TIME OF STREET CONSTRUCTION (SEE DETAIL SHEET **C4.17**)
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR

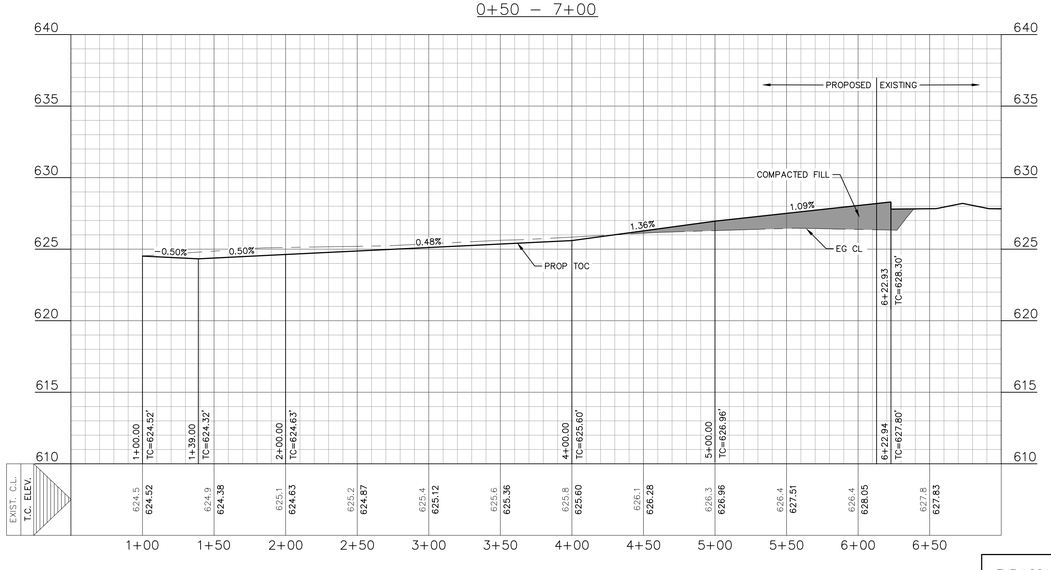
NOTES

1. LOCAL STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF 25 MPH.
2. IN WASHOUT CROWN AREAS, THE CURB ON THE HIGH SIDE OF THE STREET SHOULD BE SPILL CURB AS DESIGNATED ON THE PLANS.
3. CONTRACTOR TO CONSTRUCT SIDEWALK RAMPS WITH STREETS.
4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM STREET STUB OUT ENDS SO THAT NO "PONDING" OF WATER OCCURS.
5. PER NEW BRAUNFELS ORDINANCE SEC. 114-98(a)(6) ALL DRIVEWAY LOCATED ON A SINGLE FAMILY RESIDENCE ON A LOCAL STREET SHALL HAVE A MINIMUM SPACING OF 20'

LOST CREEK ROAD
7+00 – 11+00



LEGENDS CREEK
0+50 – 7+00



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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

LOST CREEK & LEGENDS CREEK PLAN & PROFILE

PARKSIDE PHASE 5

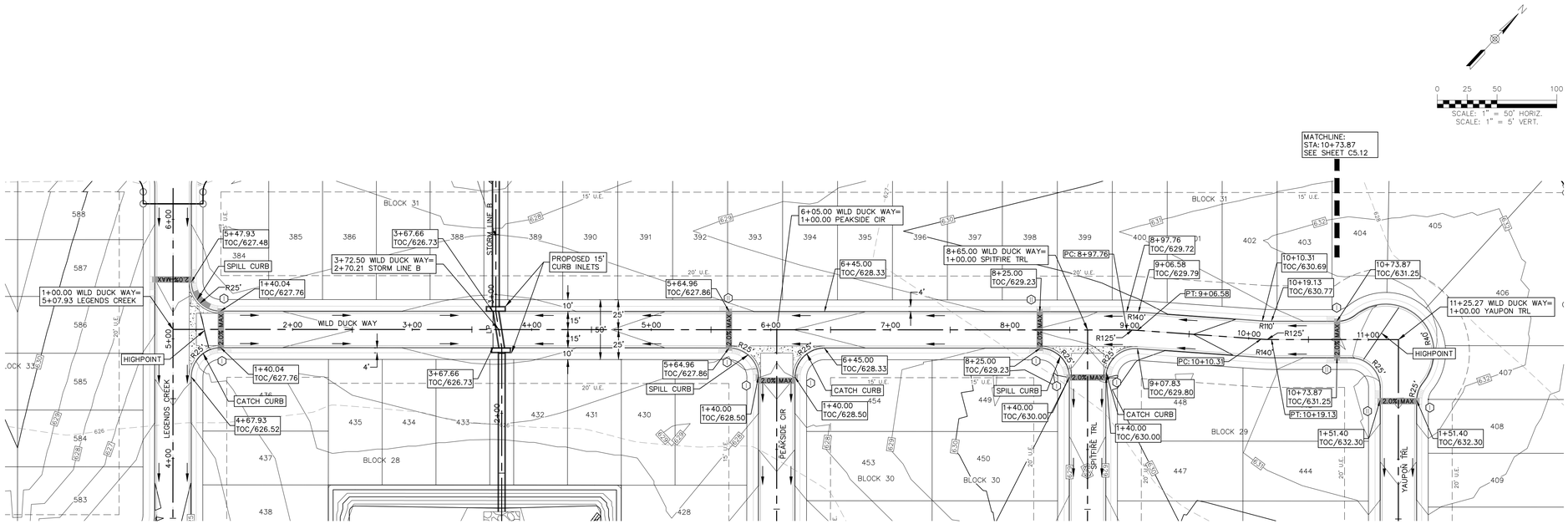
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.02

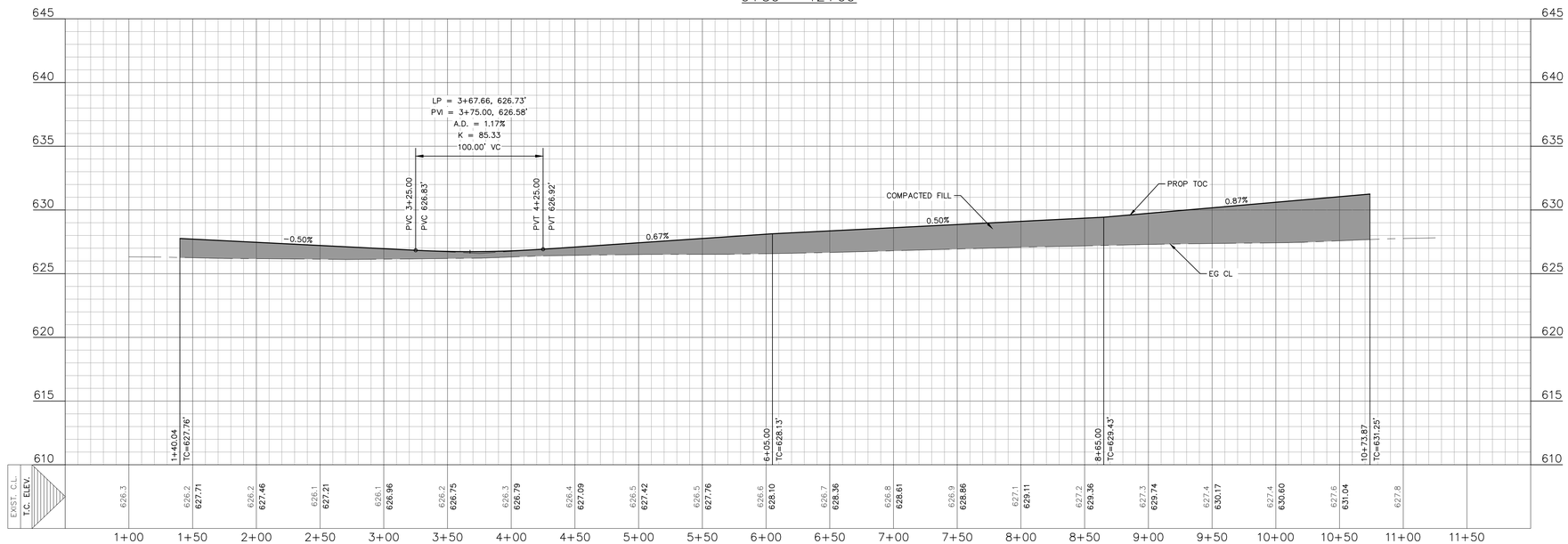
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0 25 50 100

SCALE: 1" = 50' HORIZ.
SCALE: 1" = 5' VERT.

WILD DUCK WAY
0+50 – 12+00



LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- SPILL CURB
- EXISTING GROUND LEFT (EG LT)
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- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)
- 2.0% MAX — ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE TO BE CONSTRUCTED AT TIME OF STREET CONSTRUCTION (SEE DETAIL SHEET **C4.17**)
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR

NOTES

1. LOCAL STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF **25** MPH.
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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WILD DUCK WAY
PLAN & PROFILE

PARKSIDE PHASE 5

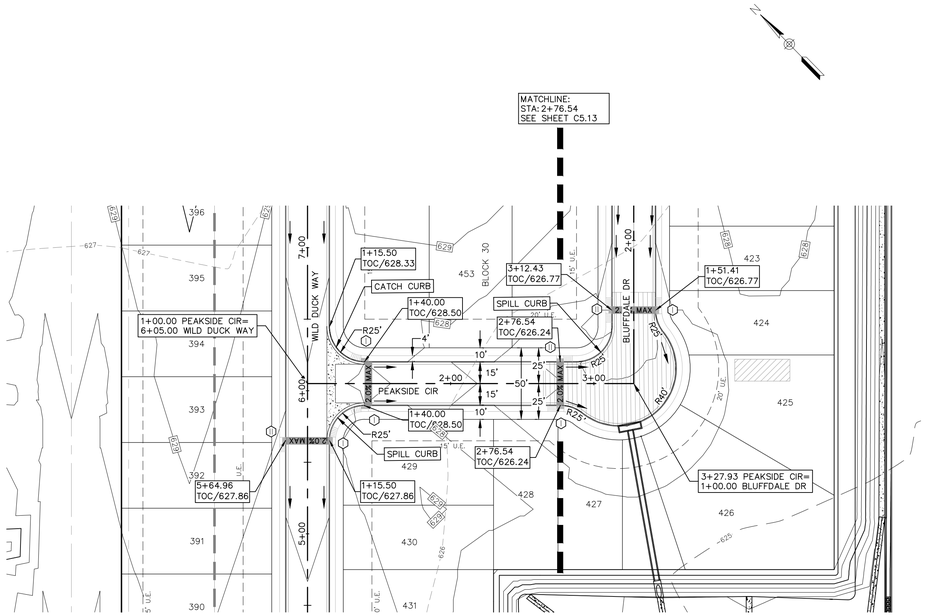
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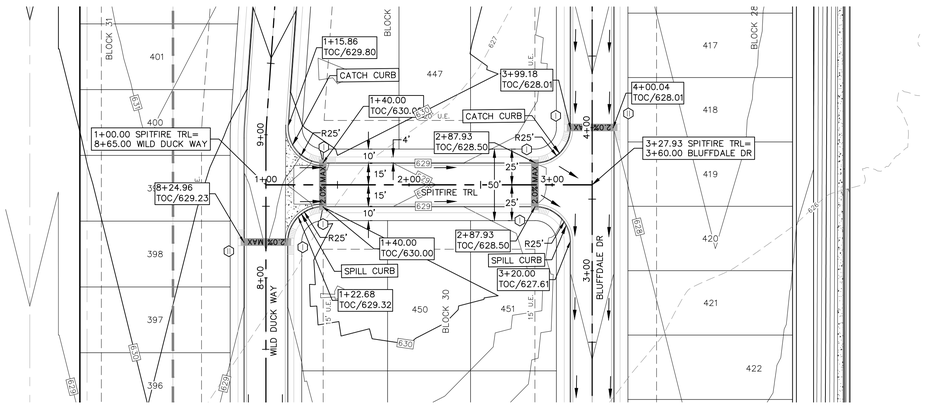
DATE:	**DECEMBER 2024**
DRAWN BY:	**RR**
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HMT PROJECT NO.:	**337.042**

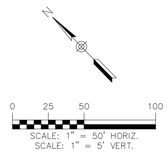
SHEET

C4.03

Drawing Name: M:_Projects\337 – Lennar Homes\042 – Parkside Unit 5\02a\337.042_WILD DUCK WAY P&P.dwg User: philipm Dec 06, 2024 - 12:11pm







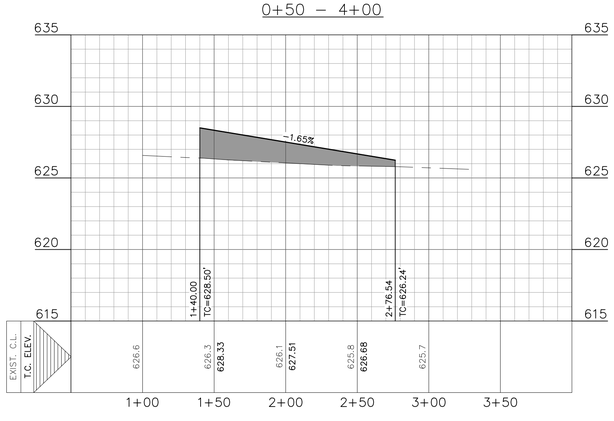
LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- SPILL CURB
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)
- 2.0% MAX — ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE TO BE CONSTRUCTED AT TIME OF STREET CONSTRUCTION (SEE DETAIL SHEET **C4.13**)
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR

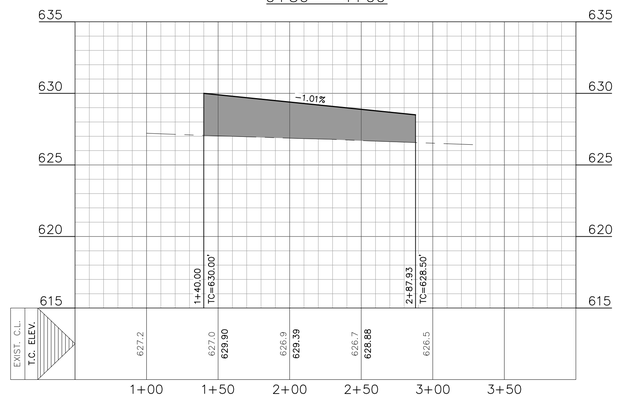
NOTES

1. LOCAL STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF **25** MPH.
2. IN WASHOUT CROWN AREAS, THE CURB ON THE HIGH SIDE OF THE STREET SHOULD BE SPILL CURB AS DESIGNATED ON THE PLANS.
3. CONTRACTOR TO CONSTRUCT SIDEWALK RAMPS WITH STREETS.
4. CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM STREET STUB OUT ENDS SO THAT NO "PONDING" OF WATER OCCURS.
5. PER NEW BRAUNFELS ORDINANCE SEC. 114-98(a)(6) ALL DRIVEWAY LOCATED ON A SINGLE FAMILY RESIDENCE ON A LOCAL STREET SHALL HAVE A MINIMUM SPACING OF 20'

PEAKSIDE CIR
0+50 – 4+00



SPITFIRE TRL
0+50 – 4+00



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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

PEAKSIDE CIR & SPITFIRE TRL PLAN & PROFILE

PARKSIDE PHASE 5

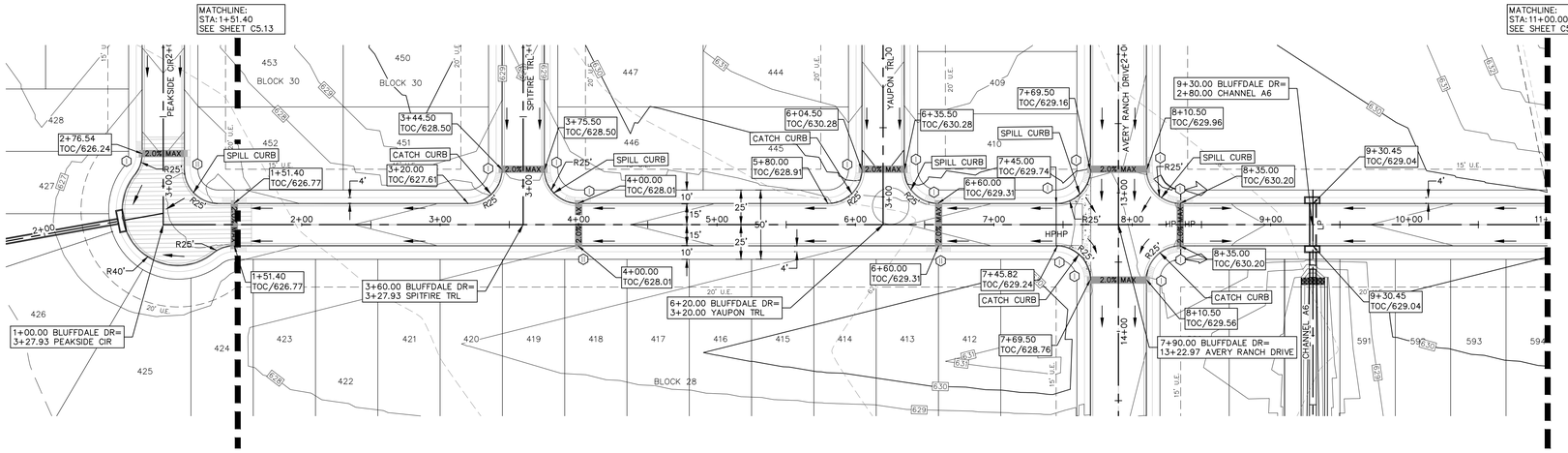
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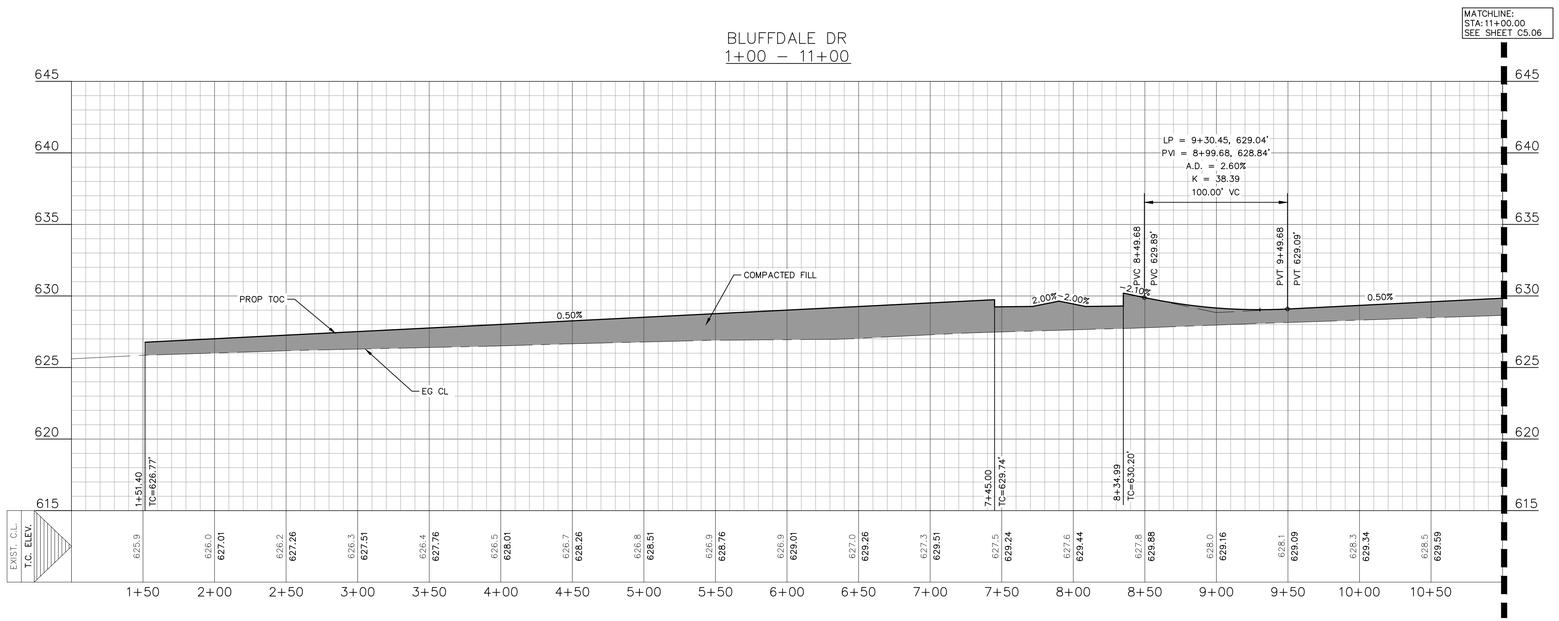
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.04

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03a\337.042_SPITFIRE TRL & PEAKSIDE CIR P&P.dwg User: philipm Dec 06, 2024 - 12:12pm





LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- SPILL CURB
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)
- 2.0% MAX — ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE TO BE CONSTRUCTED AT TIME OF STREET CONSTRUCTION (SEE DETAIL SHEET **C4.17**)
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR

0 25 50 100
SCALE: 1" = 50' HORIZ.
SCALE: 1" = 5' VERT.

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HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER
12/06/2024

BLUFFDALE DR PLAN & PROFILE (1 OF 2)

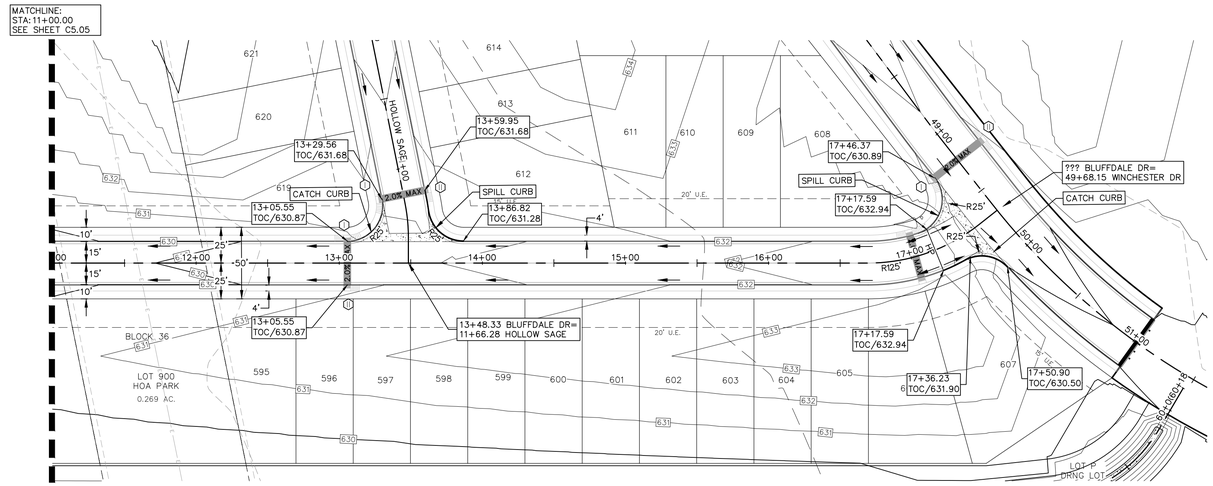
PARKSIDE PHASE 5

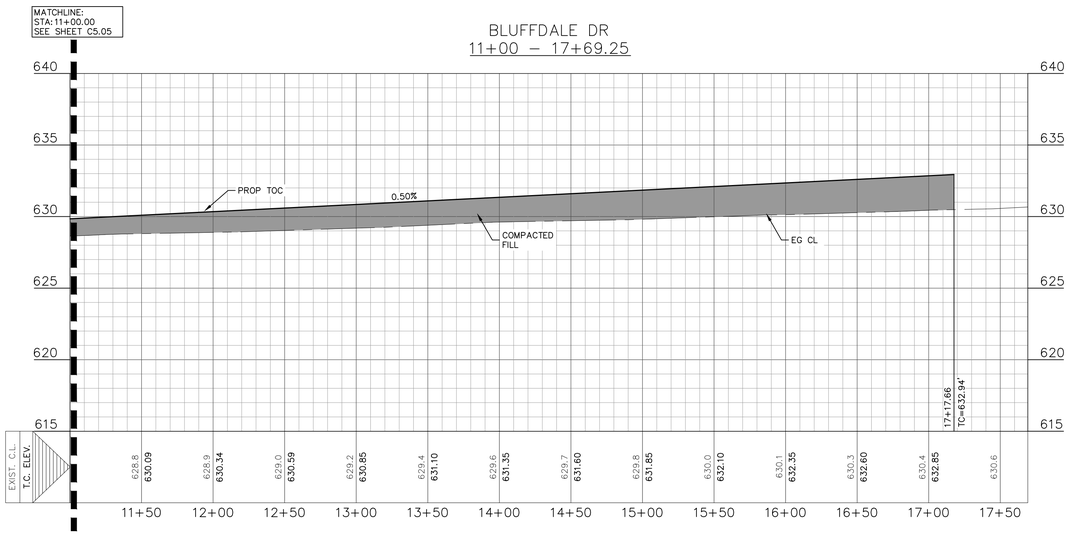
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	**DECEMBER 2024**
DRAWN BY:	**RR**
DESIGNED BY:	**MTA**
REVIEWED BY:	**CVH**
HMT PROJECT NO.:	337.042

SHEET
C4.05

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03a\337.042_BLUFFDALE DR P&P.dwg User: philipm Dec 06, 2024 - 12:13pm





LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
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0 25 50 100
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NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600
HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

BLUFFDALE DR PLAN & PROFILE (2 OF 2)

PARKSIDE PHASE 5

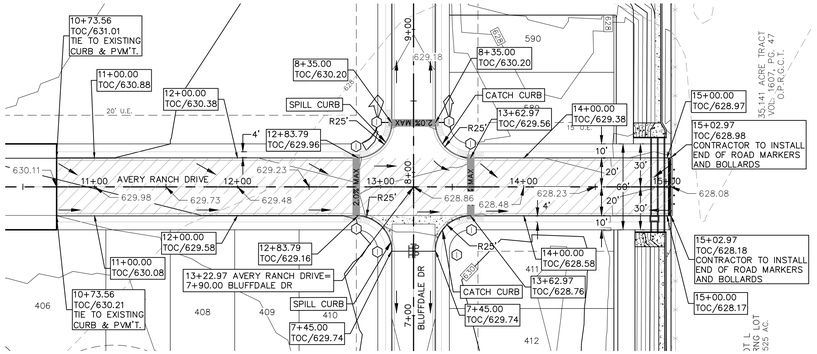
NO.	REVISION DESCRIPTION	REVISION DATE

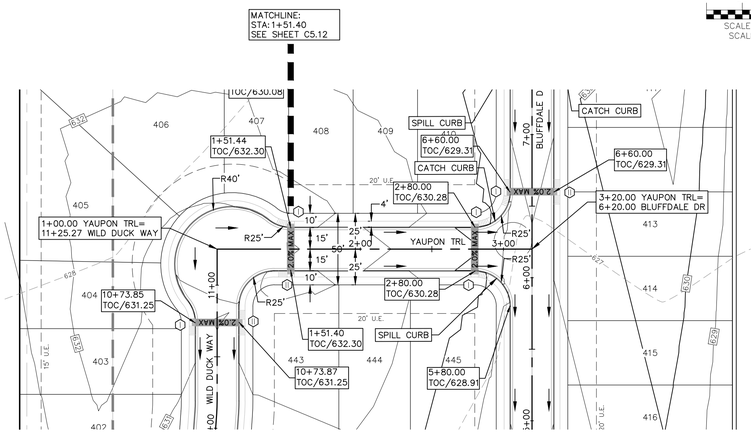
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DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.06

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03a\337.042_BLUFFDALE DR P&P.dwg User: philipm Dec 06, 2024 - 12:13pm





0 25 50 100
SCALE: 1" = 50' HORIZ.
SCALE: 1" = 5' VERT.

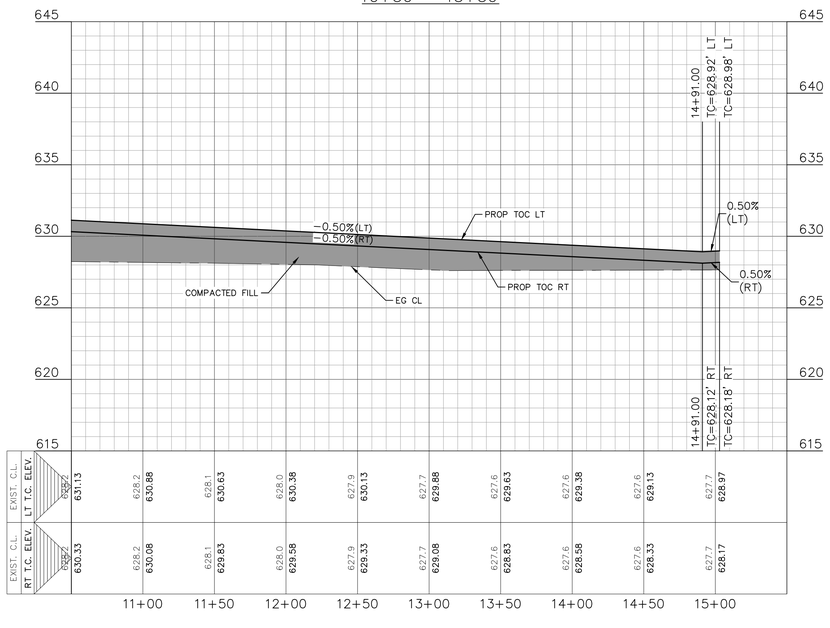
LEGEND

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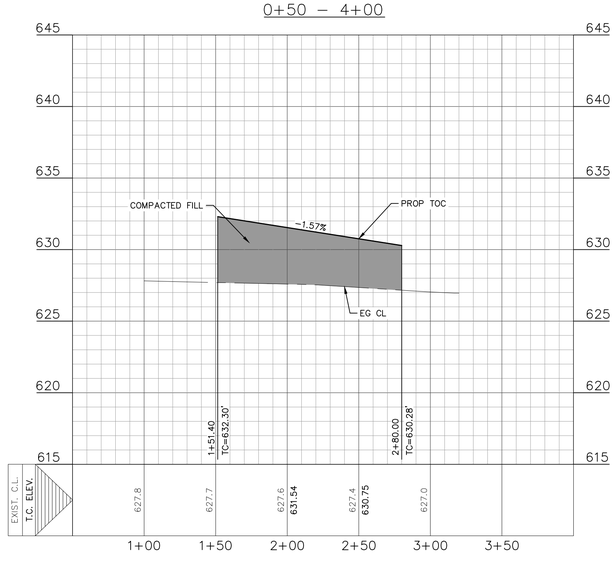
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AVERY RANCH DRIVE
10+50 – 15+50



YAUPON TRL
0+50 – 4+00



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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

AVERY RANCH DR & YAUPON TRL PLAN & PROFILE

PARKSIDE PHASE 5

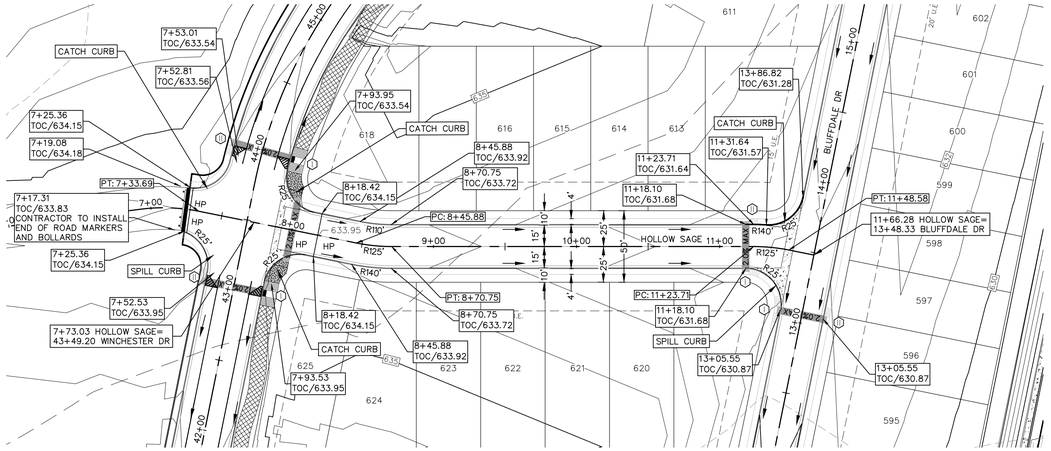
NO.	REVISION DESCRIPTION	REVISION DATE

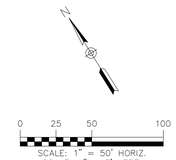
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.07

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\CDs\337.042_AVERY RANCH & YAUPON TRL P&P.dwg User: philipm Dec 06, 2024 - 12:14pm



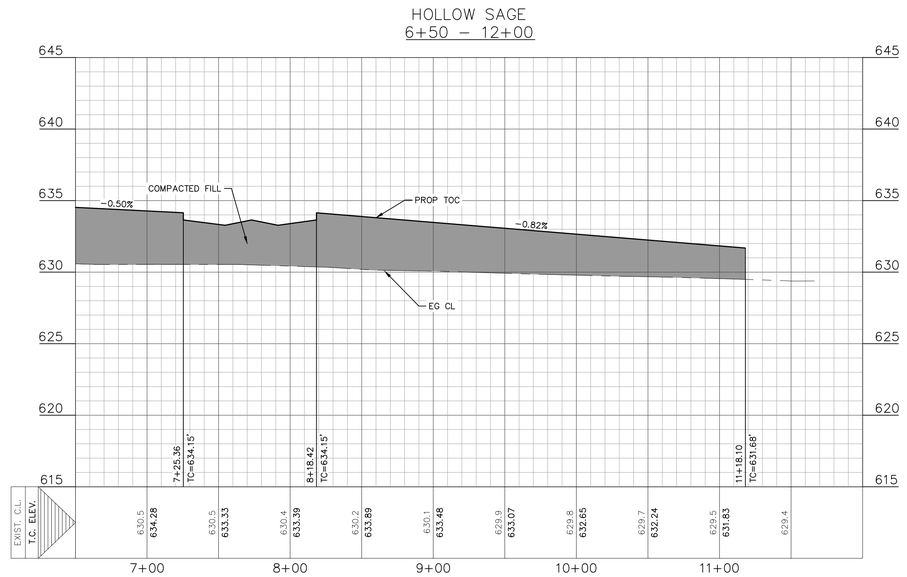


LEGEND

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NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
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HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

HOLLOW SAGE PLAN & PROFILE

PARKSIDE PHASE 5

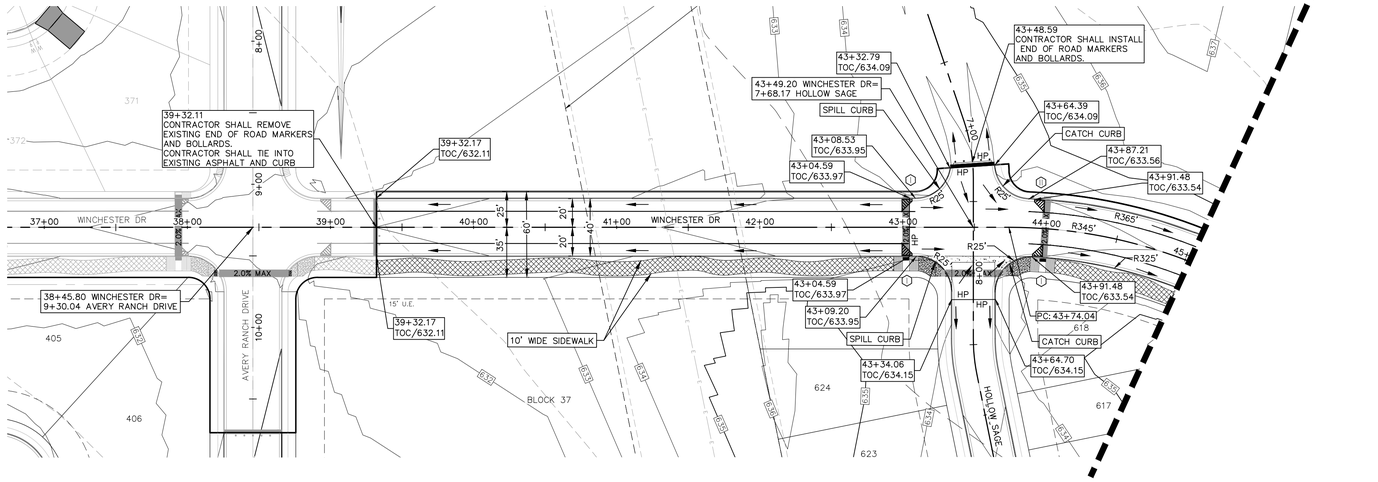
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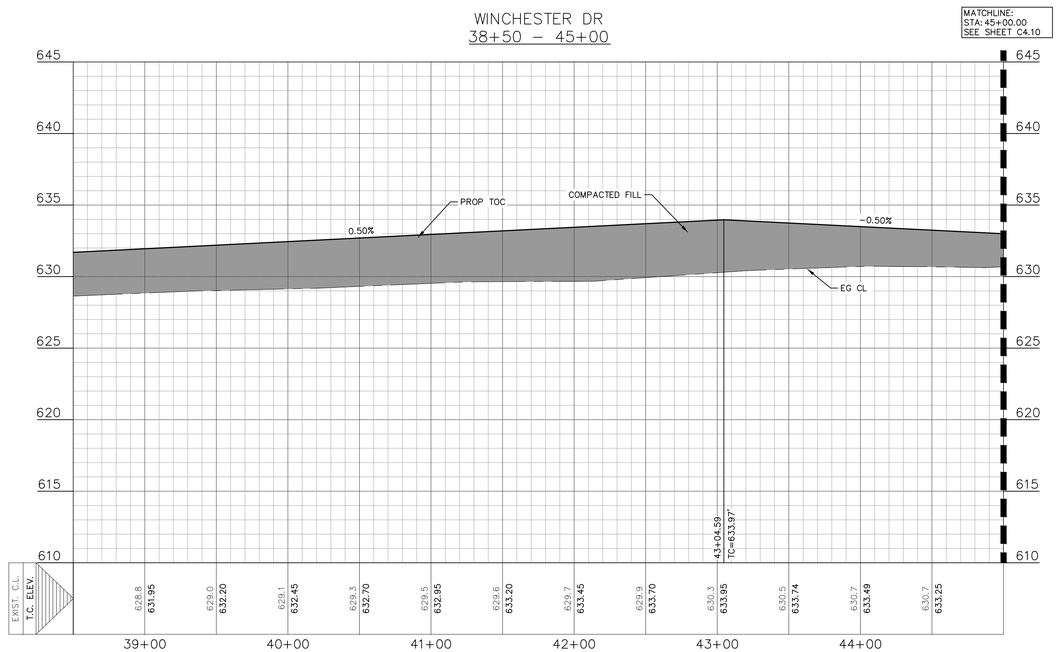
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

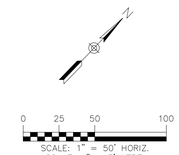
SHEET

C4.08

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cbh\337.042_HOLLOW SAGE P&P.dwg User: phillipm Dec 06, 2024 - 12:15pm







LEGEND

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HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WINCHESTER DR PLAN & PROFILE (1 OF 2)

PARKSIDE PHASE 5

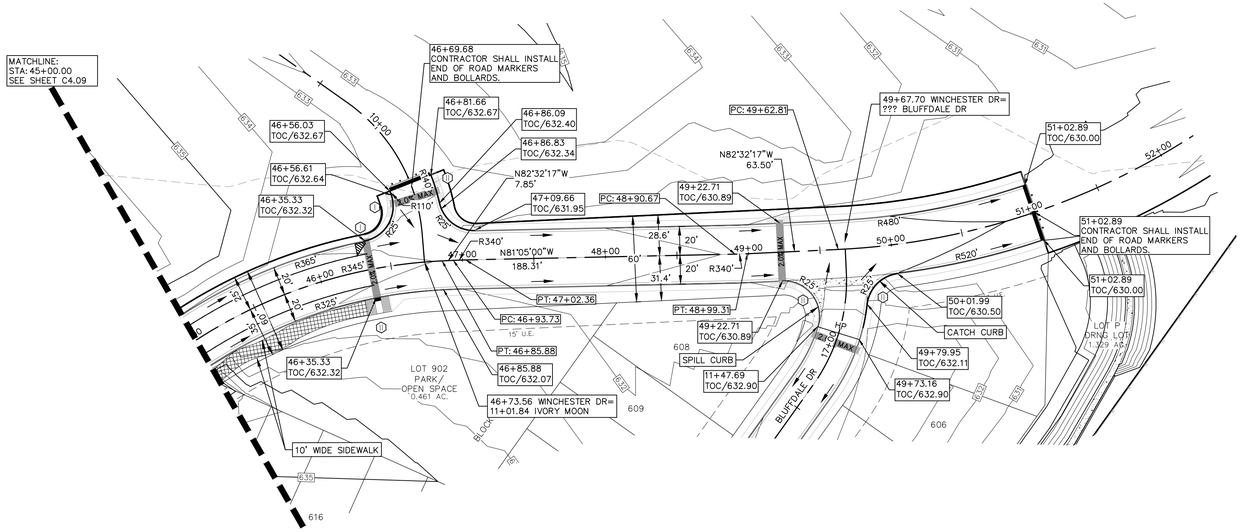
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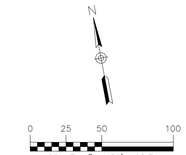
DATE:	DECEMBER 2024
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SHEET

C4.09

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cbs\337.042_WINCHESTER DR P&P.dwg User: philipm Dec 06, 2024 - 12:16pm



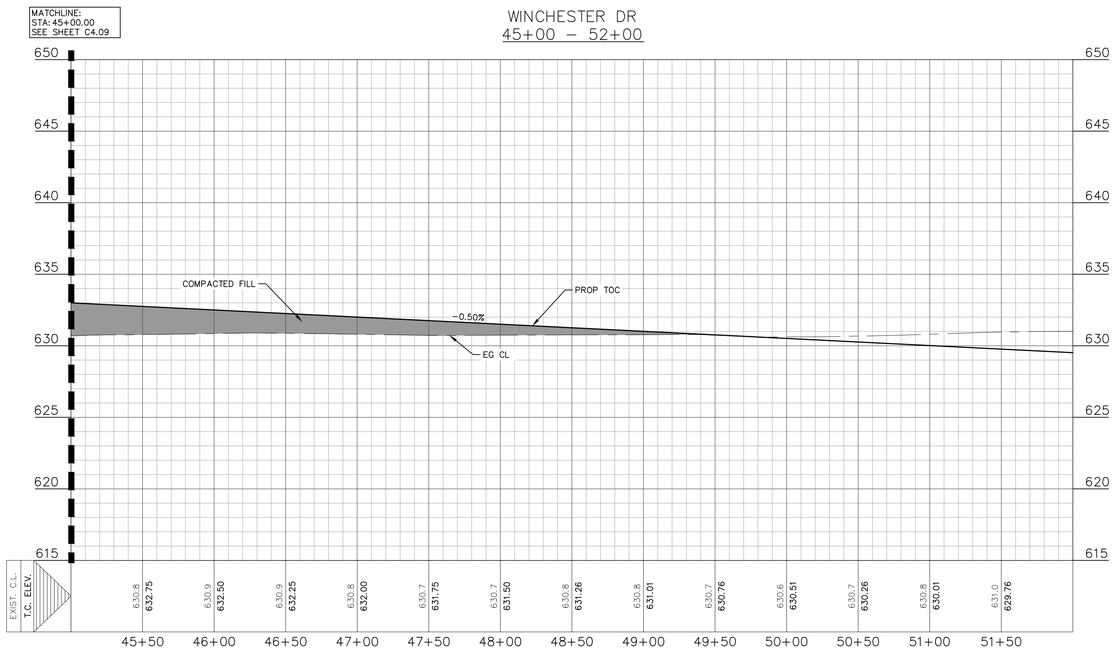


LEGEND

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- SPILL CURB
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)
- 2.0% MAX — ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE TO BE CONSTRUCTED AT TIME OF STREET CONSTRUCTION (SEE DETAIL SHEET **C4.18**)
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR

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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WINCHESTER DR PLAN & PROFILE (2 OF 2)

PARKSIDE PHASE 5

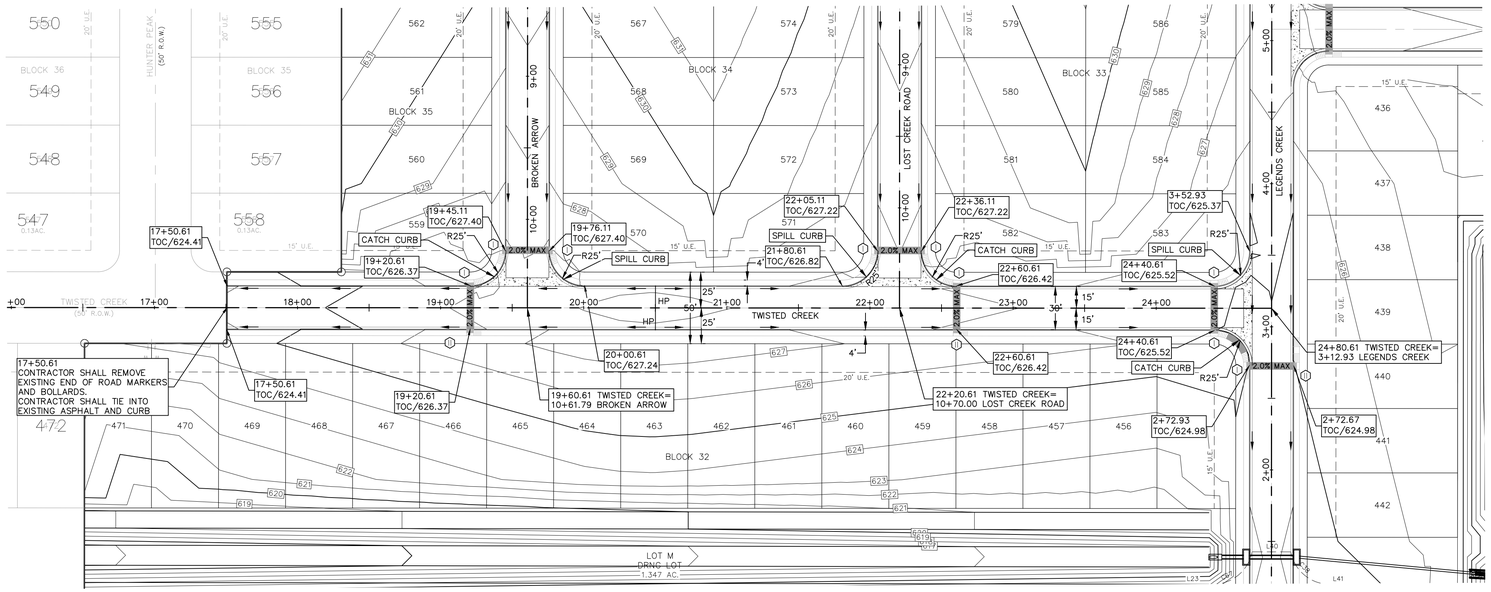
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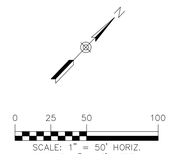
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.10

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cbk\337.042_WINCHESTER DR P&P.dwg User: philipm Dec 06, 2024 - 12:17pm





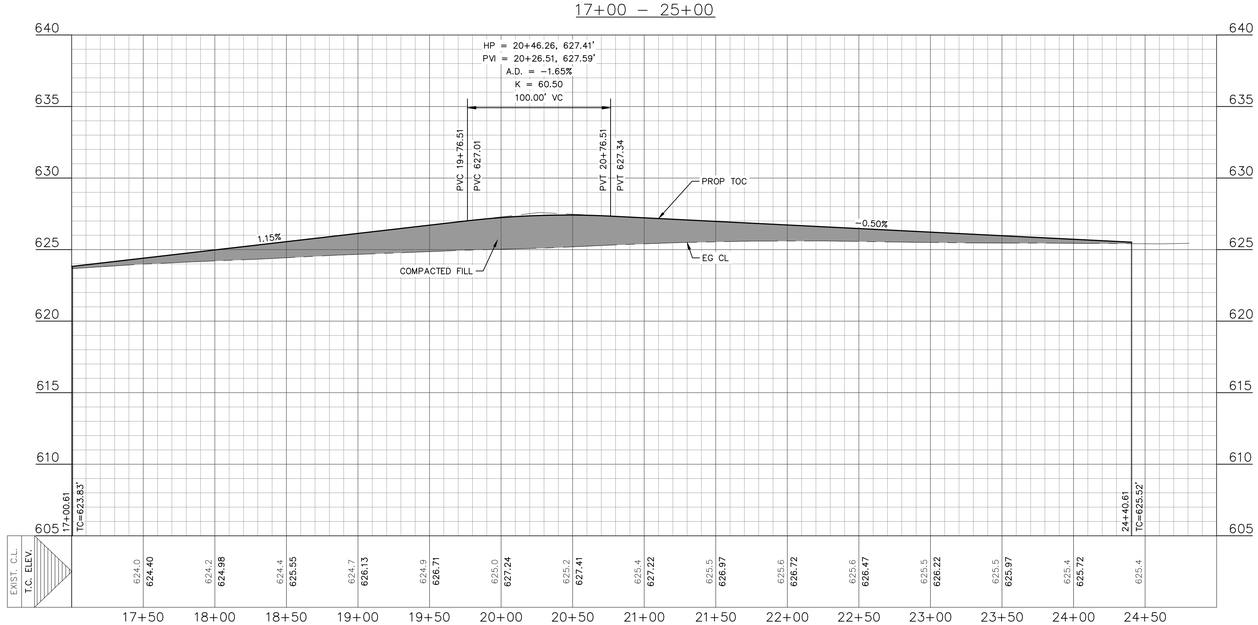
LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- A.D.A. RAMP
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TWISTED CREEK
17+00 – 25+00



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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

TWISTED CREEK
PLAN & PROFILE

PARKSIDE PHASE 5

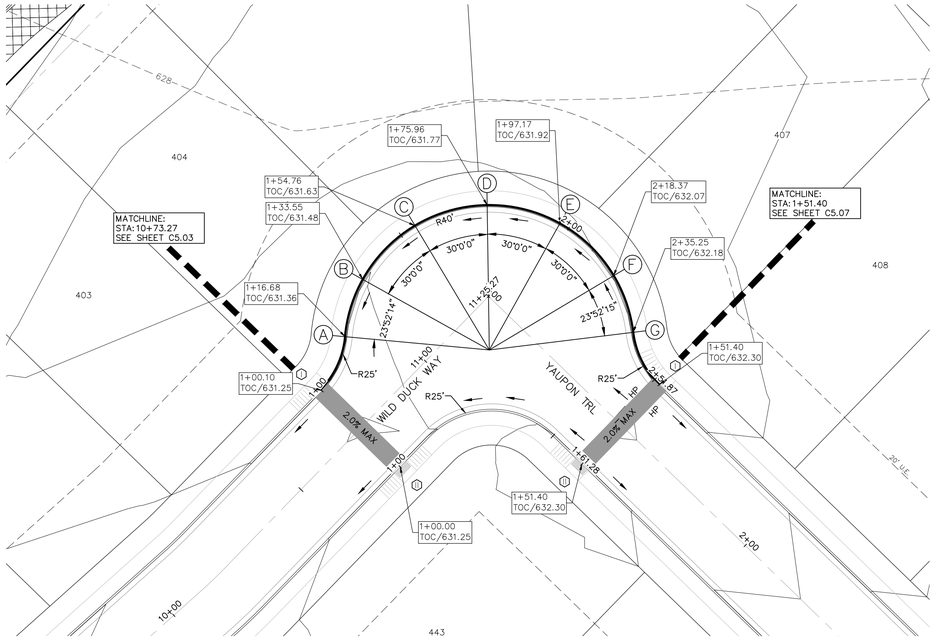
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	**DECEMBER 2024**
DRAWN BY:	**RR**
DESIGNED BY:	**MTA**
REVIEWED BY:	**CVH**
HMT PROJECT NO.:	**337.042**

SHEET

C4.11

Drawing Name: M:_Projects\337 – Lennar Homes\042 – Parkside Unit 5\02a\337.042_TWISTED CREEK P&P.dwg User: philipm Dec 06, 2024 - 12:18pm



N

0 10 20 40

SCALE: 1" = 20' HORZ.
1" = 2' VERT.

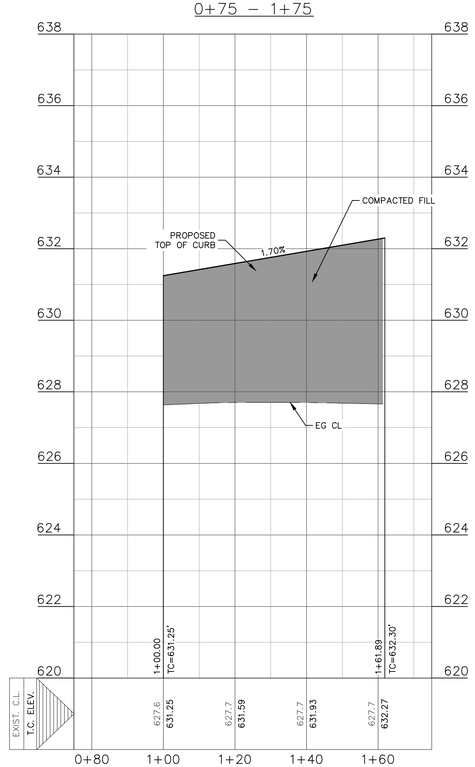
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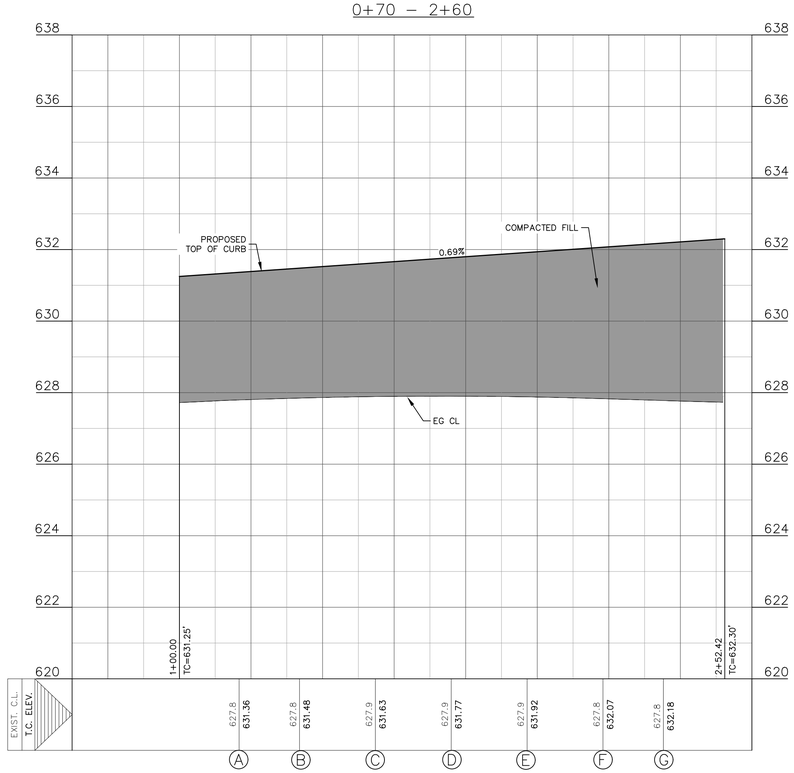
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WILD-YAUPON INNER
0+75 - 1+75



WILD-YAUPON OUTER
0+70 - 2+60



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NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WILD DUCK WAY & YAUPON TRL SAC PLAN & PROFILE

PARKSIDE PHASE 5

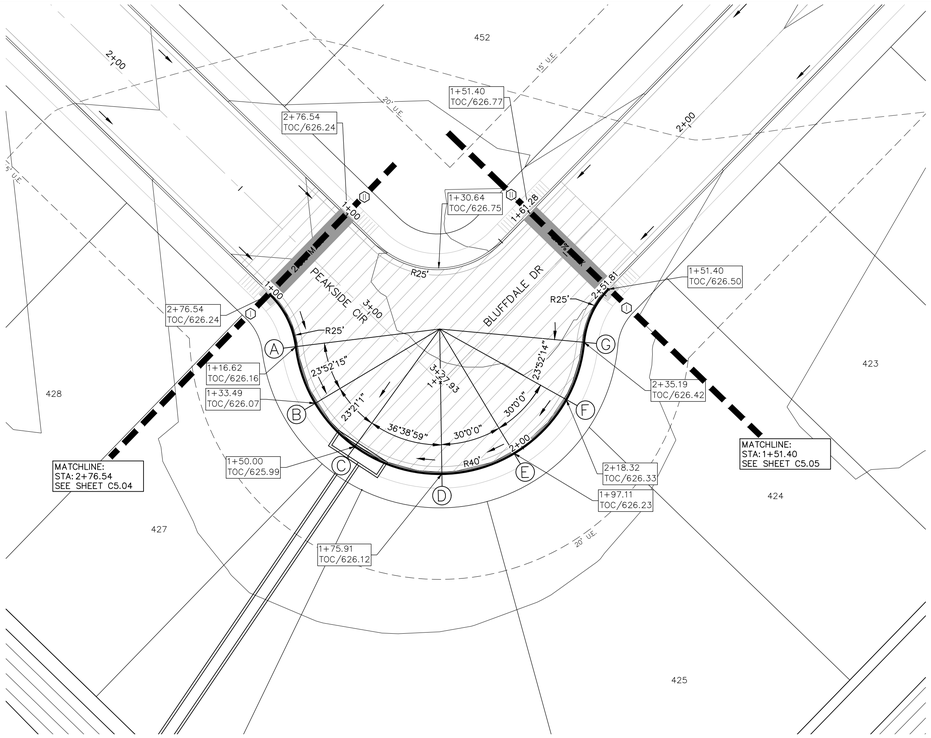
NO.	REVISION DESCRIPTION	REVISION DATE

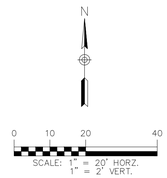
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.12

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cb\337.042 _KNUCKLE SACS P&P.dwg User: philipm Dec 06, 2024 - 12:19pm





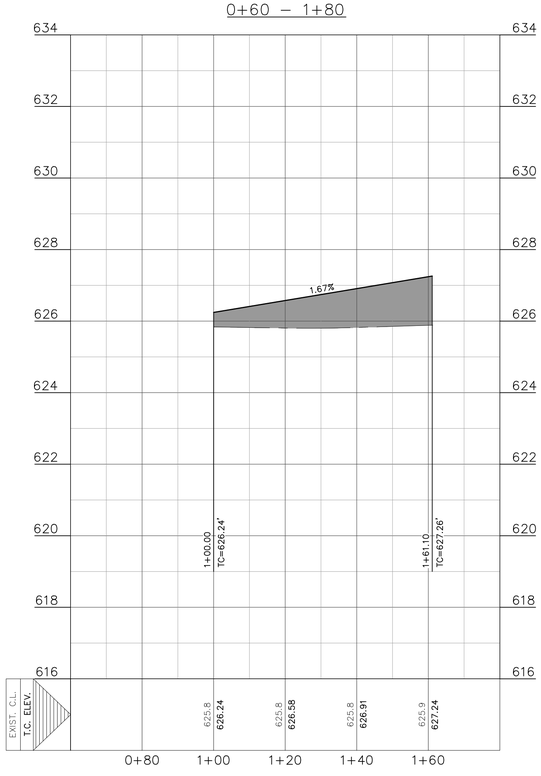
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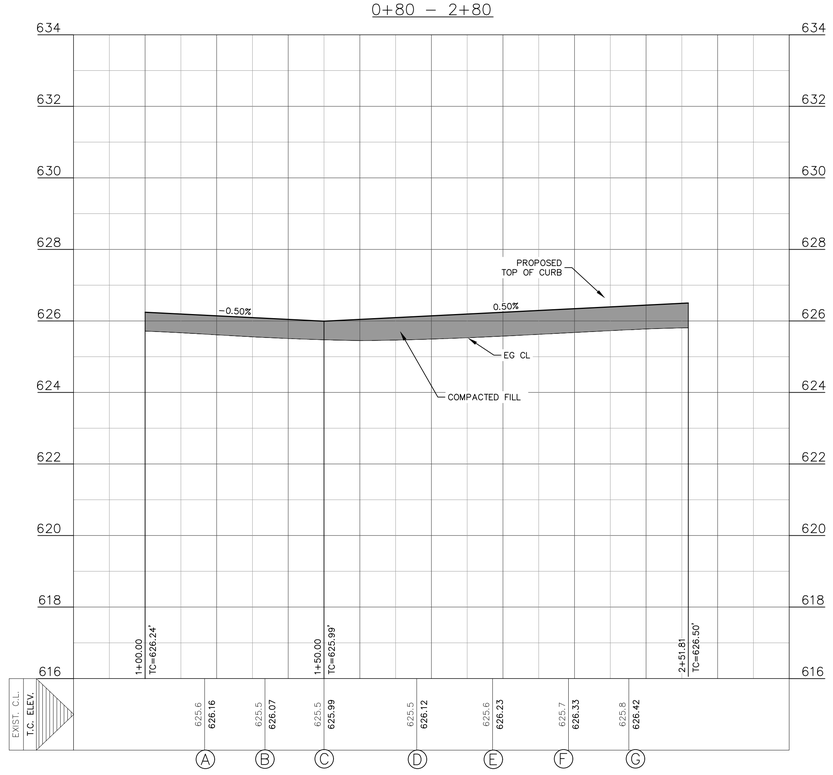
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PEAKSIDE–BLUFFDALE INNER
0+60 – 1+80



PEAKSIDE–BLUFFDALE OUTER
0+80 – 2+80



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NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

PEAKSIDE CIR & BLUFFDALE DR
SAC PLAN & PROFILE

PARKSIDE PHASE 5

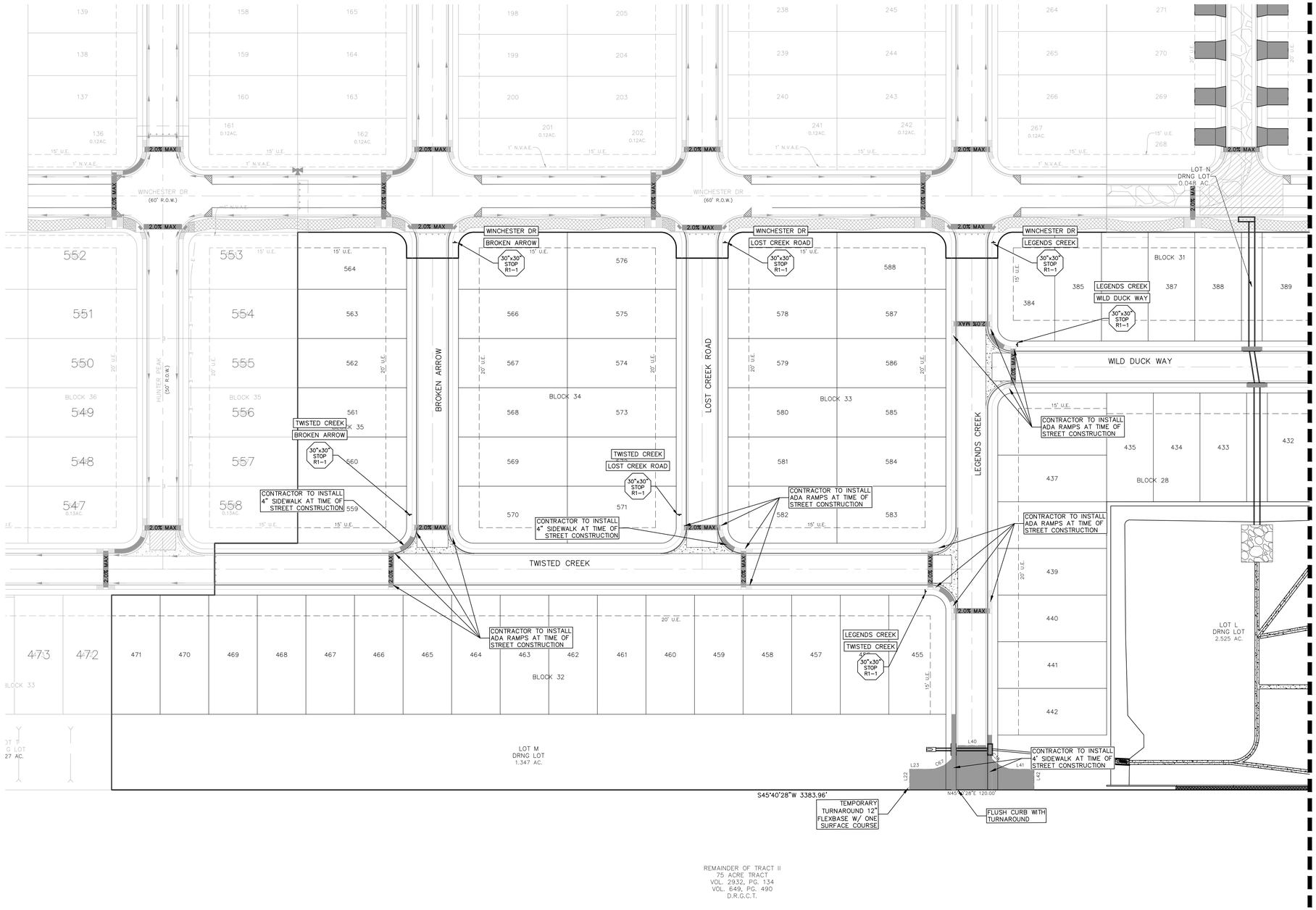
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.13

Drawing Name: M:_Projects\337 – Lennar Homes\042 – Parkside Unit 5\CIDs\337.042 _KNUCKLE SACS P&P.dwg User: philipm Dec 06, 2024 - 12:19pm



LEGEND

B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
	A.D.A. RAMP
2.0% MAX	ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
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0 25 50 100
HORIZONTAL SCALE: 1:50

SIGNAGE NOTES

INSTALLATION

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MOUNTING

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290 S. CASTELL AVE., STE. 100
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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
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12/06/2024

SIGNAGE PLAN (1 OF 3)

PARKSIDE PHASE 5

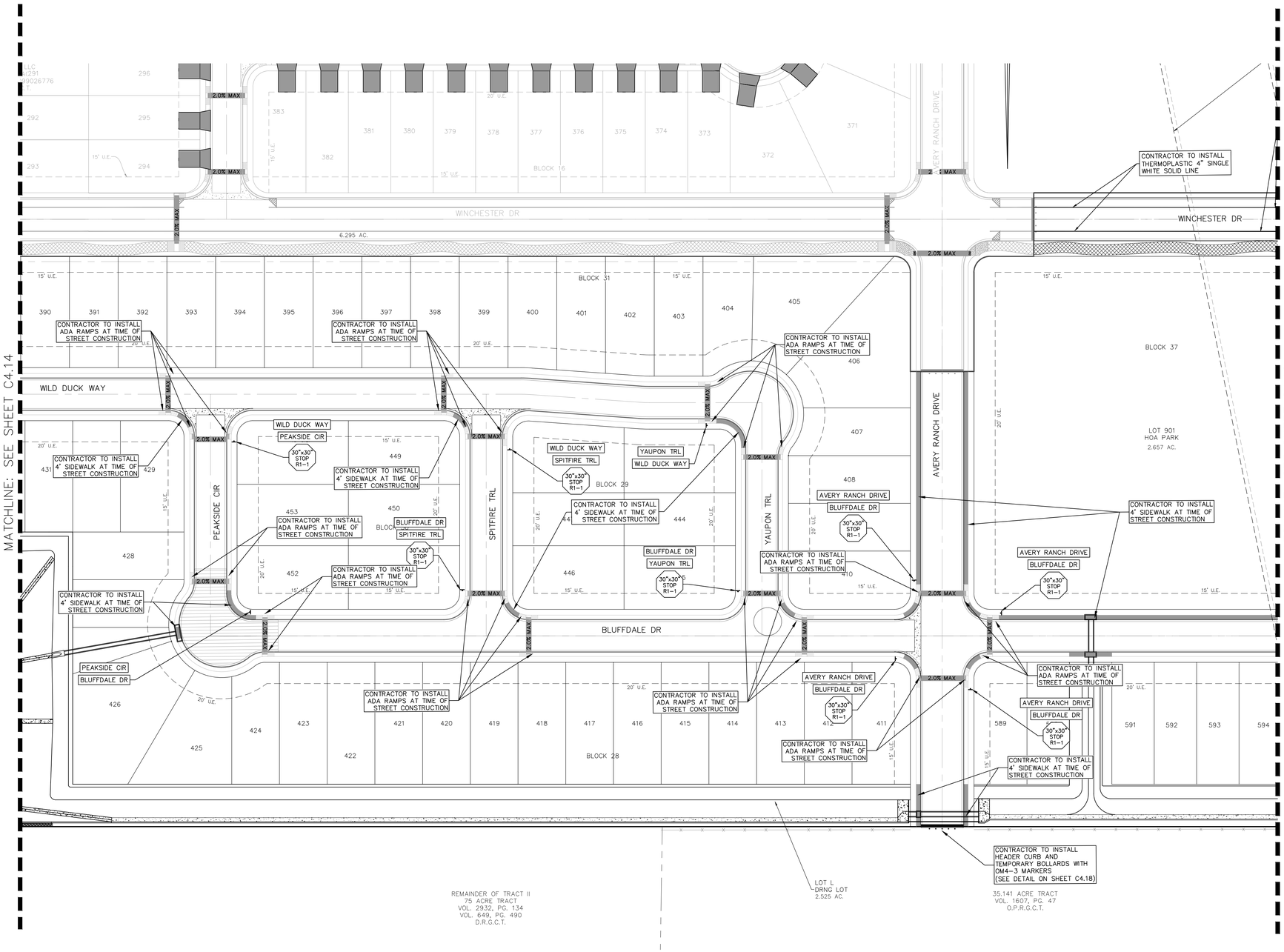
NO.	REVISION DESCRIPTION	REVISION DATE

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DRAWN BY:	RR
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HMT PROJECT NO.:	337.042

SHEET

C4.14

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cds\337.042_SIGNAGE PLAN.dwg User: philipm Dec 06, 2024 - 12:21pm



LEGEND

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U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
	A.D.A. RAMP
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HORIZONTAL SCALE: 1:50

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HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
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LICENSED PROFESSIONAL ENGINEER

12/06/2024

SIGNAGE PLAN (2 OF 3)

PARKSIDE PHASE 5

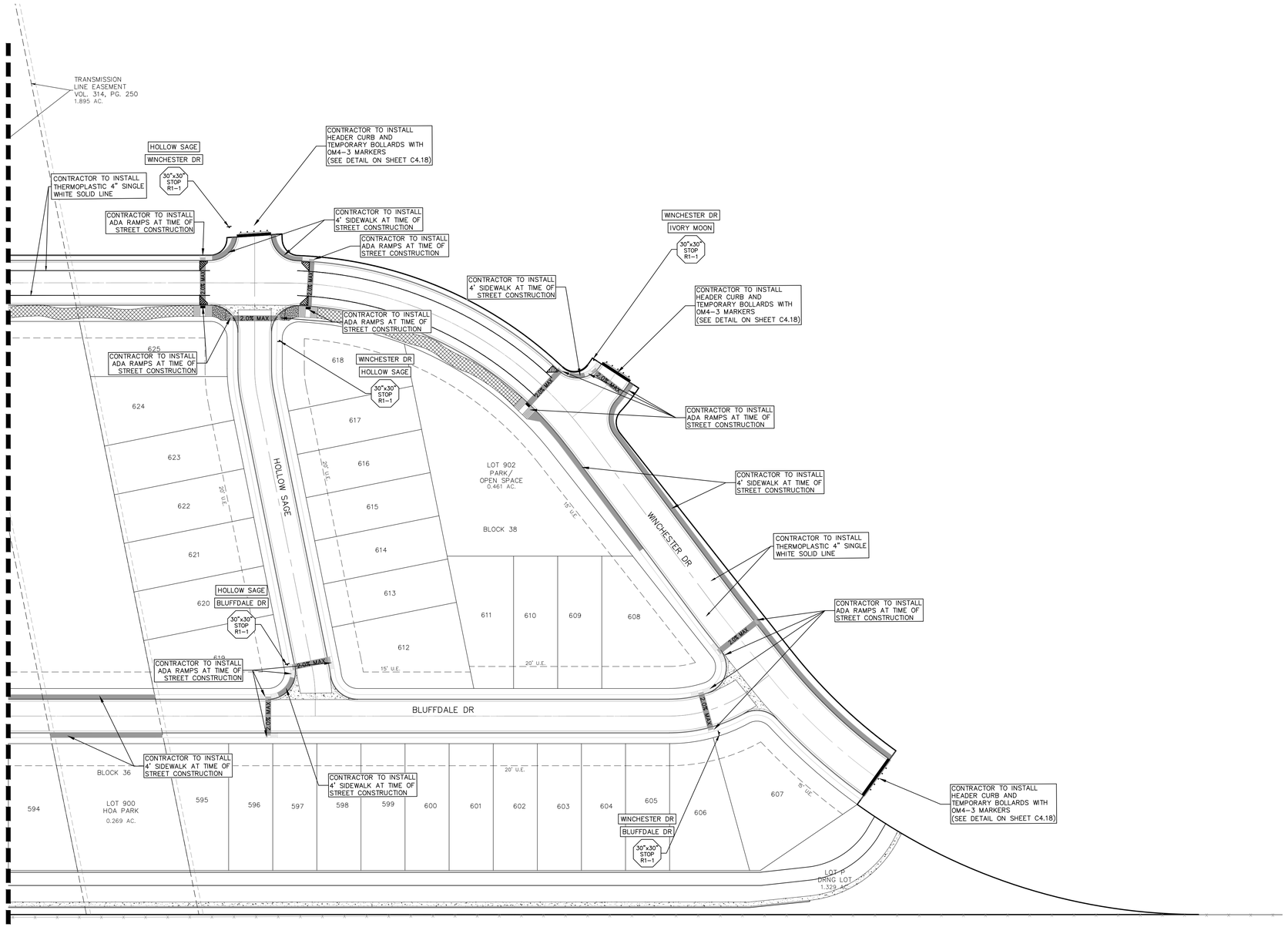
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DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.15

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cb\337.042_SIGNAGE PLAN.dwg User: philipm Dec 06, 2024 - 12:21pm



LEGEND

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D.E.	DRAINAGE EASEMENT
	A.D.A. RAMP
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THE TRIANGULAR SLIP BASE SYSTEM AND 10 BWG TUBING POST SHALL BE USED FOR SIGNS THAT HAVE 10 TO 16 SQUARE FEET OF SIGN AREA. MATERIALS AND INSTALLATION SHOULD FOLLOW THE TXDOT TRAFFIC STANDARDS SMD (GEN) - 08 AND SMD (SLIP-1-3)- 08.

OBJECT MARKERS MATERIALS AND INSTALLATION SHOULD FOLLOW THE TXDOT TRAFFIC STANDARDS D & OM (1 - 5) - 10.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600
HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER
12/06/2024

SIGNAGE PLAN (3 OF 3)

PARKSIDE PHASE 5

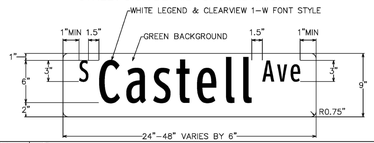
NO.	REVISION DESCRIPTION	REVISION DATE

DATE: **DECEMBER 2024**
DRAWN BY: **RR**
DESIGNED BY: **MTA**
REVIEWED BY: **CVH**
HMT PROJECT NO.: **337.042**

SHEET
C4.16

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337.042_SIGNAGE PLAN.dwg User: philipm Dec 06, 2024 - 12:21pm

STREET SIGN DETAIL - GROUND MOUNT



Height	9"
Length	24" min 48" max 6" increments in length
Thickness	0.080"
Substrate	Flat aluminum sheeting with ¾" radius circular fillets at corners conforming to the requirements of ASTM B 209, Alloys 6061–T–6, or 5052–H38.
Sign Face Materials	Green film over High Intensity Prismatic sheeting
Legend	Legends shall be Clearview 1–W font style. Reduced spacing between the letters or words should not be used as a means of reducing the overall size of a street name sign unless approved by the City Traffic Engineer.
Color	White legend on green background

Notes:

1. Street name signs shall be double sided when center mounted on top of sign post. Only one street name sign should be installed on top of sign post with STOP or YIELD sign.
2. When two sets of street name signs are required (e.g. at "T" intersections), one double-sided street name sign shall be mounted on sign post. The sign assembly shall meet minimum height requirements as required in the Texas Manual on Uniform Traffic Control Devices (TMUTCD). When required, DEAD END (W14-1a) or NO OUTLET (W14-2a) signs shall also be mounted on the sign post.
3. Street name signs greater than 36' long and center mounted on top of sign post shall be mounted on post top bracket with 12" slot. All other street name signs center mounted on top of sign post shall be mounted on post top bracket with 5 ½" slot.
4. Street name signs mounted on sign post shall be mounted with double-sided round pole brackets. Two holes should be punched in the center of the 9" street name sign blank 1" from edge of the blank with 7"spacing between holes.
5. The lettering for names of streets shall be composed of a combination of lower-case letters with initial upper-case letters. Acceptable abbreviations per TMUTCD may be used except for the street name itself.
6. Red background (red film over High Intensity Prismatic) should be used for private street name signs.

Street Sign Detail - Ground Mount			
ISSUE DATE: February 2013	DWG. NO:ST-024	SCALE: N.T.S.	
DRAWN BY: RAS	CONTACT: GF	SHEET: 1 OF 1	

City of New Braunfels — ENGINEERING DIVISION
424 S. CASTELL AVE.
NEW BRAUNFELS, TEXAS 78130
PHONE: 830.221.4020
FAX: 830.629.3600

J:\CIVIL RESOURCES\DETAILS\PUBLIC WORKS DETAILS\NB-UNAPPROVED DETAILS-2013\ST-2013-024 STREET SIGN DETAIL - GROUND MOUNT.DWG

Missing or invalid reference
File: F:\Civil Resources\Details\City of New Braunfels\ST-016 Sidewalk (Residential).pdf
Sheet: 1

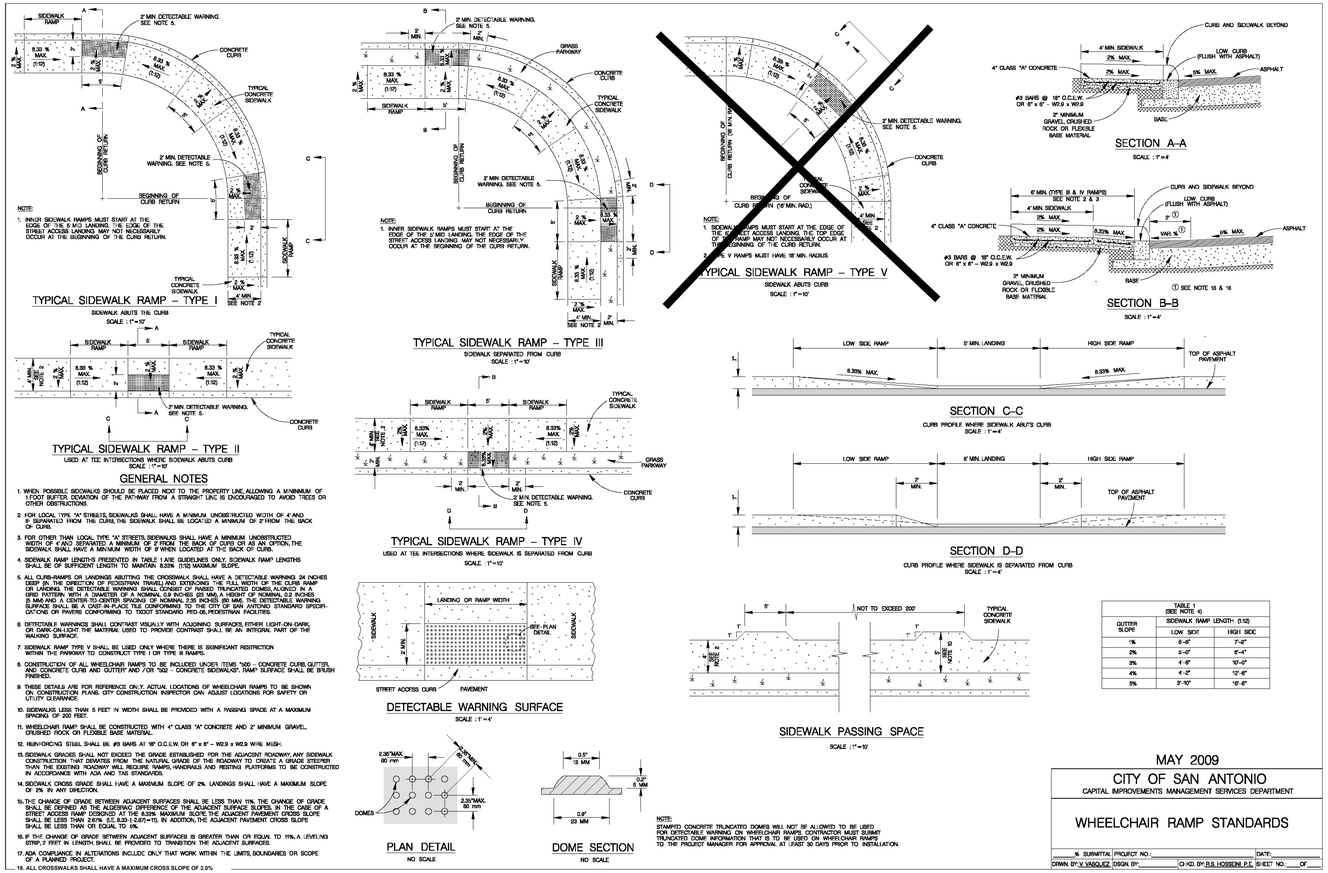


TABLE 1 (SEE NOTE 4)		
GUTTER SLOPE	SIDEWALK RAMP LENGTH- (1:12)	
	LOW SIDE	HIGH SIDE
1%	6'-6"	7'-2"
2%	5'-0"	5'-6"
3%	4'-6"	10'-0"
4%	4'-2"	12'-8"
5%	3'-10"	15'-8"

MAY 2009

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

WHEELCHAIR RAMP STANDARDS

☐ SUBMITTAL PROJECT NO.: DATE:
DRAWN BY: V. VASQUEZ DESIGN BY: CHKD. BY: R.B. HOSSEINI, P.E. SHEET NO.: OF

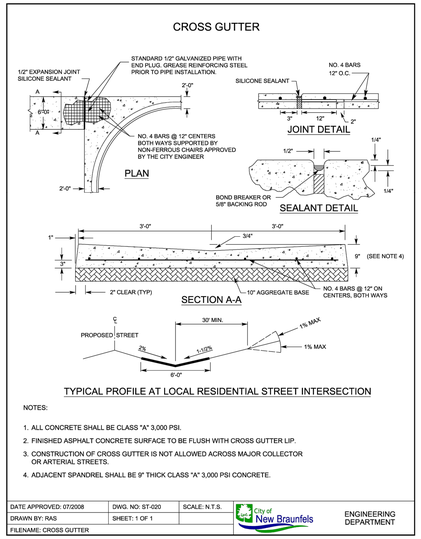
Flexible Pavement System		
Component	One and Two Family Residential Local (Local A and R Streets)	
	Pavement Material Thickness, inches	
Hot Mixed Asphaltic Concrete	2 inches	2 inches
Prime Coat	Yes	Yes
Granular Base Course (Type A, Grade 1 or 2)	10 inches	6 inches
Tensar InterAx NX750 Geogrid	---	Yes
Lime Treated Subgrade	6 inches	---
Moisture Conditioned Subgrade[1]	---	6 inches
Required Structural Number	2.65	2.65
Calculated Structural Number	2.76	2.68
Calculated Traffic (ESALs)	77,000	63,600

[1]Details regarding subgrade preparation are presented in Pavement Earthwork (Section 5.2.5).

Flexible Pavement System		
Component	Residential Collector (Local C and B Streets)	
	Pavement Material Thickness, inches	
Hot Mixed Asphaltic Concrete	2 inches	2½ inches
Prime Coat	Yes	Yes
Granular Base Course (Type A, Grade 1 or 2)	14½ inches	8½ inches
Tensar InterAx NX750 Geogrid	---	Yes
Lime Treated Subgrade	6 inches	---
Moisture Conditioned Subgrade[1]	----	6 inches
Required Structural Number	3.36	3.36
Calculated Structural Number	3.39	3.36
Calculated Traffic (ESALs)	136,600	128,900

[1]Details regarding subgrade preparation are presented in Pavement Earthwork (Section 5.2.5).

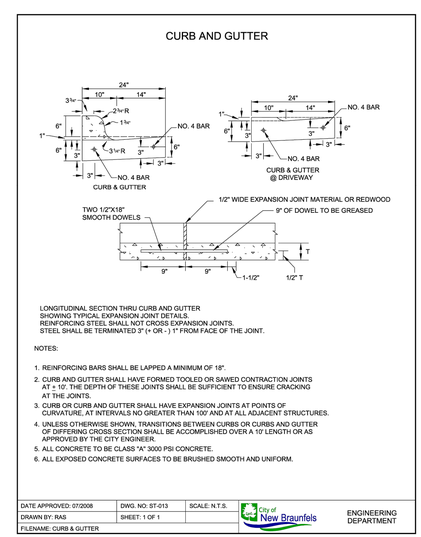
NOTE:
1. ALL PAVEMENT CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE TO THE "REVISED PAVEMENT DESIGN REPORT, PARKSIDE SUBDIVISION UNIT 4 & 5 " BY TTL OF SAN ANTONIO, LP, DATED JULY 7, 2023.
2. THE SUBGRADE SHOULD BE STABILIZED USING LIME TO A DEPTH OF 6 INCHES. A UNIT WEIGHT OF THE CLAY OF 100 LBS PER CUBIC FEET MAY BE USED.
2.1. LIME CONTENT FOR 6 INCH STABILIZATION - 35 LBS PER SQ YARD
3. THE SUBGRADE SHOULD BE STABILIZED USING LIME IN ACCORDANCE WITH THE GEOTECHNICAL REPORT IN ORDER TO ACHIEVE THE FOLLOWING:
3.1. PLASTICITY INDEX OF 20 OR LESS
3.2. PH OF 12.4 OR GREATER
4. THE SUBGRADE SOILS SHOULD BE TESTED FOR SOLUBLE SULPHATE CONTENT PRIOR TO INSTALLATION OF THE LIME OR CEMENT.
(PLEASE REVIEW PAGE 18 OF GEOTECHNICAL REPORT FOR LIME TREATMENT)



NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" 3,000 PSI.
2. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
3. CONSTRUCTION OF CROSS GUTTER IS NOT ALLOWED ACROSS MAJOR COLLECTOR OR ARTERIAL STREETS.
4. ADJACENT SPANDREL SHALL BE 9" THICK CLASS "A" 3,000 PSI CONCRETE.

DATE APPROVED: 07/2008	DWG. NO: ST-020	SCALE: N.T.S.
DRAWN BY: RAS	SHEET: 1 OF 1	
FILENAME: CROSS GUTTER		

City of New Braunfels — ENGINEERING DEPARTMENT

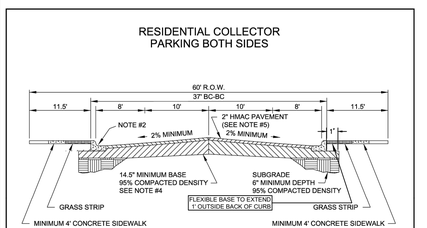


LONGITUDINAL SECTION THRU CURB AND GUTTER
SHOWING TYPICAL EXPANSION JOINT DETAILS.
REINFORCING STEEL SHALL NOT CROSS EXPANSION JOINTS.
STEEL SHALL BE TERMINATED 3" (+ OR -) 1" FROM FACE OF THE JOINT.

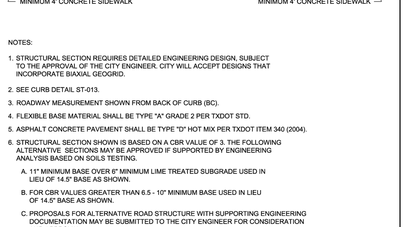
NOTES:
1. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 18".
2. CURB AND GUTTER SHALL HAVE FORMED TOOLED OR SAWED CONTRACTION JOINTS AT + 10'. THE DEPTH OF THESE JOINTS SHALL BE SUFFICIENT TO ENSURE CRACKING AT THE JOINTS.
3. CURB OR CURB AND GUTTER SHALL HAVE EXPANSION JOINTS AT POINTS OF CURVATURE, AT INTERVALS NO GREATER THAN 100' AND AT ALL ADJACENT STRUCTURES.
4. UNLESS OTHERWISE SHOWN, TRANSITIONS BETWEEN CURBS OR CURBS AND GUTTER OF DIFFERING CROSS SECTION SHALL BE ACCOMPLISHED OVER A 10' LENGTH OR AS APPROVED BY THE CITY ENGINEER.
5. ALL CONCRETE TO BE CLASS "A" 3000 PSI CONCRETE.
6. ALL EXPOSED CONCRETE SURFACES TO BE BRUSHED SMOOTH AND UNIFORM.

DATE APPROVED: 07/2008	DWG. NO: ST-013	SCALE: N.T.S.
DRAWN BY: RAS	SHEET: 1 OF 1	
FILENAME: CURB & GUTTER		

City of New Braunfels — ENGINEERING DEPARTMENT



NOTES:
1. STRUCTURAL SECTION REQUIRES DETAILED ENGINEERING DESIGN, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. CITY WILL ACCEPT DESIGNS THAT INCORPORATE BIAXIAL GEOGRID.
2. SEE CURB DETAIL ST-013.
3. ROADWAY MEASUREMENT SHOWN FROM BACK OF CURB (BC).
4. FLEXIBLE BASE MATERIAL SHALL BE TYPE "A" GRADE 2 PER TXDOT STD.
5. ASPHALT CONCRETE PAVEMENT SHALL BE TYPE "D" HOT MIX PER TXDOT ITEM 340 (2004).
6. STRUCTURAL SECTION SHOWN IS BASED ON A CBR VALUE OF 3. THE FOLLOWING ALTERNATIVE SECTIONS MAY BE APPROVED IF SUPPORTED BY ENGINEERING ANALYSIS BASED ON SOILS TESTING.
   A. 11" MINIMUM BASE OVER 6" MINIMUM LIME TREATED SUBGRADE USED IN LIEU OF 14.5" BASE AS SHOWN.
   B. FOR CBR VALUES GREATER THAN 6.5 - 10" MINIMUM BASE USED IN LIEU OF 14.5" BASE AS SHOWN.
   C. PROPOSALS FOR ALTERNATIVE ROAD STRUCTURE WITH SUPPORTING ENGINEERING DOCUMENTATION MAY BE SUBMITTED TO THE CITY ENGINEER FOR CONSIDERATION AND APPROVAL.
7. IN NO CASE SHALL THE HMAC SECTION BE LESS THAN THAT SHOWN.
8. BASE MUST EXTEND 1' BEYOND BACK OF CURB, 6" MINIMUM THICKNESS



NOTES:
1. STRUCTURAL SECTION REQUIRES DETAILED ENGINEERING DESIGN, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. CITY WILL ACCEPT DESIGNS THAT INCORPORATE BIAXIAL GEOGRID.
2. CITY WILL ACCEPT CURB AND GUTTER OR STAND-ALONE CURB. SEE CURB DETAIL ST-013 (CURB & GUTTER) & ST-013a (STAND-ALONE CURB).
3. ROADWAY MEASUREMENT SHOWN FROM BACK OF CURB (BC).
4. FLEXIBLE BASE MATERIAL SHALL BE TYPE "A" GRADE 2 PER TXDOT STD.
5. ASPHALT CONCRETE PAVEMENT SHALL BE TYPE "D" HOT MIX PER TXDOT ITEM 340 (2004).
6. IN NO CASE SHALL THE HMAC SECTION BE LESS THAN THAT SHOWN.
7. BASE MUST EXTEND 1' BEYOND BACK OF CURB, 6" MINIMUM THICKNESS

DATE APPROVED: 07/2008	DWG. NO: ST-007	SCALE: N.T.S.
DRAWN BY: RAS	SHEET: 1 OF 1	
FILENAME: RESIDENTIAL COLLECTOR (PARKING BOTH SIDES)		

City of New Braunfels — ENGINEERING DEPARTMENT

STANDARD CONSTRUCTION DETAIL
City of New Braunfels — ENGINEERING DIVISION
SCALE: N.T.S.
APPROVED DATE:
STANDARD NO.: ST-011

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

STREET DETAILS (1 OF 3)

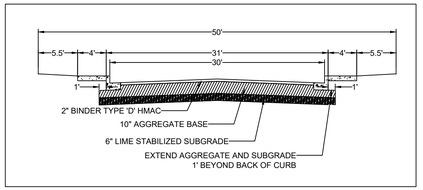
PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

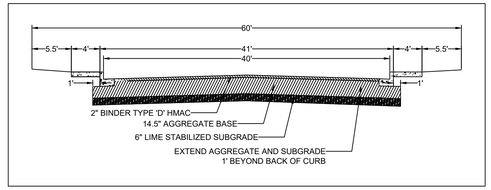
DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C4.17

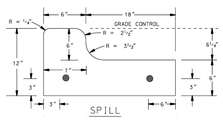
Drawing Name: M:_Projects\337 – Lennar Homes\042 – Parkside Unit 5\Cbs\337.042_STREET_DETL.dwg User: philpm Dec 06, 2024 – 12:21pm



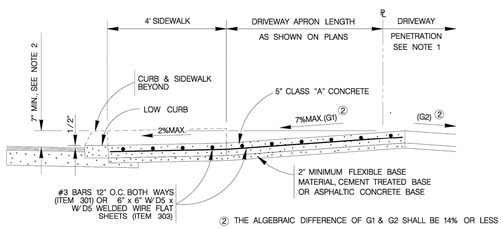
LOCAL PAVEMENT SECTION



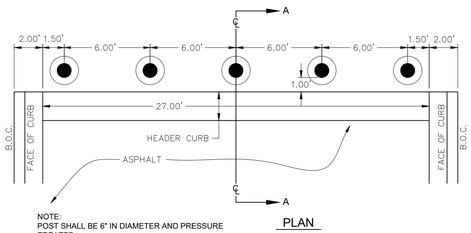
41' COLLECTOR PAVEMENT SECTION



SPILL CURB DETAIL

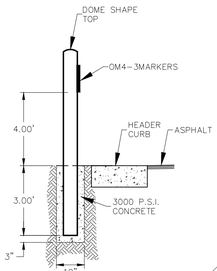


TYPE 'C' LOT DRIVEWAY DETAIL



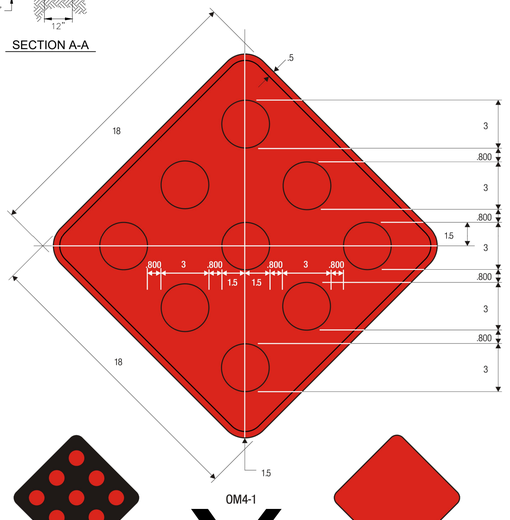
NOTE:
POST SHALL BE 6" IN DIAMETER AND PRESSURE TREATED

POST SHALL BE CENTERED AND EQUALLY SPACED AT 6' ON CENTER (MIN.)



BOLLARD DETAIL

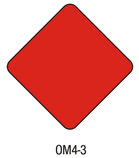
NOT TO SCALE





OM4-1 COLORS:

REFLECTORS – RED (RETROREFLECTIVE)
BACKGROUND – RED (RETROREFLECTIVE)
BORDER – RED (RETROREFLECTIVE)



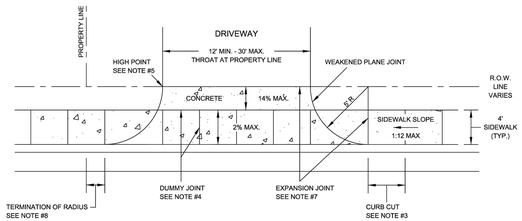
OM4-2 COLORS:

REFLECTORS – RED (RETROREFLECTIVE)
BACKGROUND – BLACK

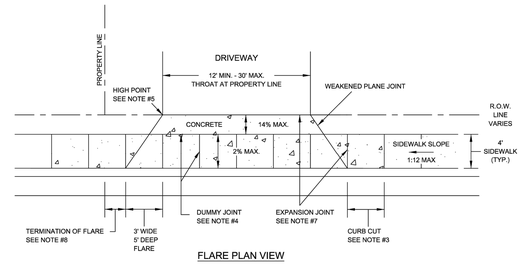
OM4-3 COLORS:

SIGN PANEL – RED (RETROREFLECTIVE)

DRIVEWAY APRON
(RESIDENTIAL - ONE OR TWO FAMILY)



RADIUS PLAN VIEW

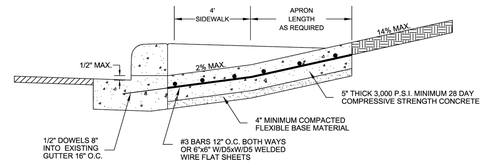


FLARE PLAN VIEW

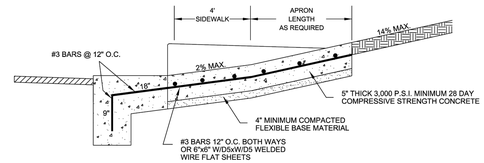
DATE APPROVED: 04/2016	DWG. NO: ST-014.1	SCALE: N.T.S.
DRAWN BY: RAS	SHEET: 1 OF 2	
FILENAME: DRIVEWAY (RESIDENTIAL - ONE OR TWO FAMILY)		

City of New Braunfels ENGINEERING DEPARTMENT

DRIVEWAY APRON
(RESIDENTIAL - ONE OR TWO FAMILY)



STRUCTURAL SECTION



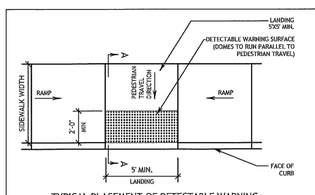
NO EXISTING CURB STRUCTURAL SECTION

NOTES:

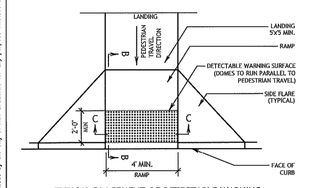
1. WHERE GUTTER DOES NOT EXIST DRIVEWAY APRON SHALL EXTEND TO EDGE OF ASPHALT AND SHALL HAVE A MINIMUM 6" WIDE 1' DEEP GRADE BEAM MONOLITHIC AND REINFORCED SIMILAR TO APRON.
2. PLACEMENT OF SIDEWALK SHOWN IS TYPICAL; HOWEVER, ALTERNATIVE SIDEWALK PLACEMENT COMMON TO DRIVEWAY APRON WILL BE CONSIDERED PROVIDED CROSS SLOPE OF SIDEWALK IS NO GREATER THAN 2%.
3. CURB CUT LENGTH NO GREATER THAN AS REQUIRED TO MATCH SLOPE OF ADJACENT SIDEWALK.
4. DUMMY JOINTS TO BE PROVIDED AT MINIMUM 4-FT. INTERVALS PERPENDICULAR TO THE CURB LINE WITHIN THE SIDEWALK AREA AND PARALLEL TO THE SIDEWALK AREA.
5. PROVIDE A MINIMUM 7" HIGH POINT. HIGH POINT HEIGHT SHALL BE MEASURED FROM THE GUTTER FLOW LINE TO THE DRIVEWAY APRON. NOTE HIGH POINT MAY OCCUR OUTSIDE OF ROW.
6. DRIVEWAY THROAT TRANSITION MAY OCCUR OUTSIDE OF ROW.
7. PROVIDE EXPANSION JOINTS AT ALL SIDEWALK AND DRIVEWAY THROAT JOINTS. EXPANSION JOINTS SHALL BE PLACED USING 1/2" ASPHALTIC MATERIAL WITH 1/2" DOWELS 16" O.C.
8. THE TANGENT POINT OF THE DRIVEWAY CURB RETURN AT THE PUBLIC ROADWAY LINE OR FLARE SHALL BE A MINIMUM DISTANCE OF 1' OFF THE PROPERTY PROJECTED PERPENDICULAR TO THE STREET CENTERLINE, EXCEPT SINGLE FAMILY OR ZERO LOT LINE LOTS. ON SINGLE FAMILY ZERO LOT LINE LOTS WHERE THE DRIVE IS ON THE ZERO LOT LINE, THE TANGENT POINT OR FLARE SHALL BE NO GREATER THAN 3' BEYOND THE ADJOINING PROPERTY LINE PROJECTED PERPENDICULAR TO THE STREET CENTERLINE.

DATE APPROVED: 04/2016	DWG. NO: ST-014.2	SCALE: N.T.S.
DRAWN BY: RAS	SHEET: 2 OF 2	
FILENAME: DRIVEWAY (RESIDENTIAL - ONE OR TWO FAMILY)		

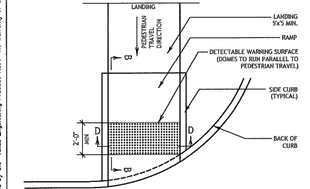
City of New Braunfels ENGINEERING DEPARTMENT



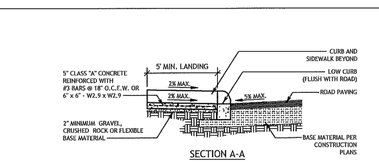
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING FOR PARALLEL CURB RAMP.



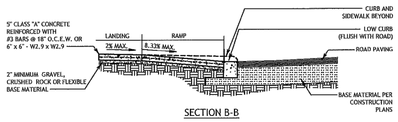
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE FOR PERPENDICULAR CURB RAMP.



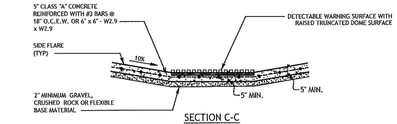
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN FOR DIRECTIONAL CURB RAMP.



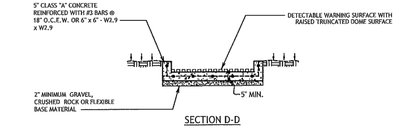
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

CURB RAMP NOTES

1. ALL SLOPES ARE MAXIMUM ALLOWABLE, THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. ADJUST CURB RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS AS DIRECTED.
2. THESE DETAILS ARE FOR REFERENCE ONLY. ACTUAL LOCATIONS OF CURB RAMPS ARE TO BE SHOWN ON THE CONSTRUCTION PLANS. ALL ACCESSIBLE WALK WAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT (ADA) AND TEXAS ACCESSIBILITY STANDARDS (TAS). CITY ENGINEER OR BUILDING OFFICIAL MAY ADJUST LOCATIONS FOR SAFETY OR UTILITY CLEARANCE.
3. THE MINIMUM STANDARD SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 118-49 OF THE NEW BRAUNFELS CODE OF ORDINANCES.
4. ALL LANDINGS WHERE REQUIRED SHALL BE 5'X 5' (60"X60") MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
5. RAMP LENGTHS SHALL BE SUFFICIENT TO MAINTAIN A MAXIMUM SLOPE OF 8.33% (1V:12H), MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2% (1V:50H).
6. SIDEWALK GRADES SHALL NOT EXCEED THE GRADE ESTABLISHED FOR THE ADJACENT ROADWAY, ANY SIDEWALK CONSTRUCTION THAT DEVIATES FROM THE GRADE OF THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY WILL REQUIRE RAMPS, HANDRAILS, AND LANDINGS IN ACCORDANCE WITH CURRENT ADA AND TAS REQUIREMENTS.
7. PROVIDE FLARED RAMP SIDES WITH A MAXIMUM SLOPE OF 10% (1V:10H) MEASURED ALONG THE CURB LINE. CURB RETURNS MAY BE USED IN-LIEU OF SIDE FLARES IN AREAS NOT NORMALLY WALKED ACROSS BY PEDESTRIANS, BECAUSE THE ADJACENT SURFACE IS VEGETATION OR OTHER NON-WALKING SURFACE OR WHERE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
8. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X 4' (48"X48") WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
9. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN ELSEWHERE IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, CURB RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE CITY ENGINEER OR BUILDING OFFICIAL.
10. EXISTING FEATURES THAT COMPLY WITH CURRENT TAS REQUIREMENTS MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
11. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. PROVIDE CURB RAMPS WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
12. SEPARATE CURB RAMP AND LANDINGS FROM ADJACENT SIDEWALK AND ANY OTHER ELEMENTS WITH PRE-MOLD OR BOARD JOINT OF 1/2" UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER OR BUILDING OFFICIAL.
13. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMPS CONNECT TO THE STREET.
14. THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES SHALL BE LESS THAN 11%. THE CHANGE OF GRADE SHALL BE DEFINED AS THE ALGEBRAIC DIFFERENCE OF THE ADJACENT SURFACE SLOPES. IN THE CASE OF A STREET ACCESS RAMP DESIGNED AT THE 8.33% MAXIMUM SLOPE, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN 2.63% (I.E. 8.33-(-2.67)=11). IN ADDITION, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 5%.
15. IF THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES IS GREATER THAN OR EQUAL TO 11%, A LEVELING STRIP, 2 FEET IN LENGTH, SHALL BE PROVIDED TO TRANSITION THE ADJACENT SURFACES.
16. ADA RAMP SHALL BE CONSTRUCTED WITH 5" CLASS "A" CONCRETE WITH 2" MINIMUM GRAVEL,CRUSHED ROCK OR FLEXIBLE BASE MATERIAL. REINFORCING STEEL SHALL BE #3 BARS AT 18" O.C.E.W. OR 6"x6" - W2.9 X W2.9 WIRE MESH.
17. THE EXTENTS OF ADA COMPLIANCE IN ALTERATIONS SHALL BE WITHIN THE LIMITS, BOUNDARIES OR SCOPE OF A PLANNED PROJECT AND AS DETERMINED BY THE CITY BUILDING OFFICIAL.

DETECTABLE WARNING NOTES

1. CURB RAMPS OR LANDINGS ABUTTING THE CROSSWALK MUST HAVE A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 705 OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACES, INCLUDING SIDE FLARES. FURNISH DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE, UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
2. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
3. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
4. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL, AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR LANDING WHERE THE PEDESTRIAN ACCESS ROUTE ENTERS THE STREET.
5. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS AT THE BACK OF CURB. ALIGN THE ROWS OF DOMES TO BE PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP RUN AND THE STREET. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.
6. DETECTABLE WARNING MATERIALS MUST MEET TXDOT DEPARTMENTAL MATERIALS SPECIFICATION DMS-4350 AND BE LISTED ON THE MATERIAL PRODUCER LIST. INSTALL PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
7. DETECTABLE WARNING PAVERS SHALL NOT BE PERMITTED WITHOUT THE APPROVAL BY THE PUBLIC WORKS DEPARTMENT.

City of New Braunfels

ENGINEERING DIVISION
550 LANDA STREET
NEW BRAUNFELS, TEXAS 78130
PHONE: 830 221 4020
FAX: 830 608 3600

CURB RAMP STANDARDS		
APPROVED DATE: 05/18/2017	DWG. NO.: ST-019	SCALE: AS NOTED
DRAWN BY: RC	CONTACT: GF	SHEET: 1 OF 1

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TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

STREET DETAILS (2 OF 3)

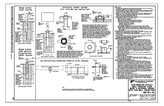
PARKSIDE PHASE 5

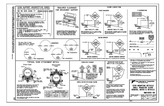
NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C4.18

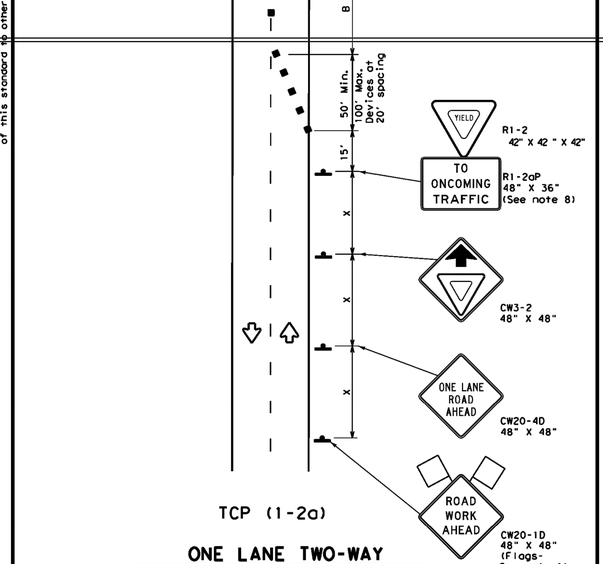
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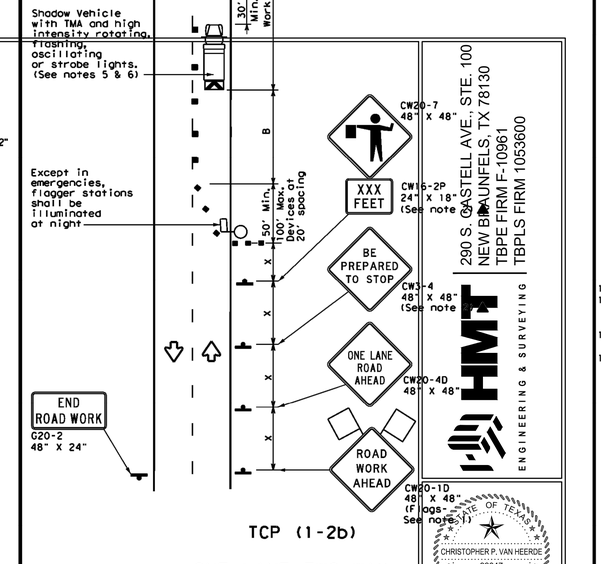
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FILE:



TCP (1-2a)

ONE LANE TWO-WAY CONTROL WITH YIELD SIGNS

(Less than 2000 ADT - See note 7)



TCP (1-2b)

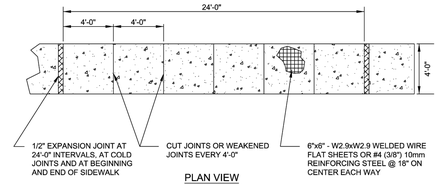
ONE LANE TWO-WAY CONTROL WITH FLAGGERS

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HMT
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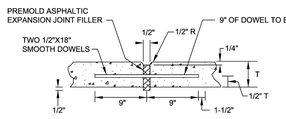
STATE OF TEXAS
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12/06/2024

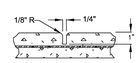
SIDEWALK
(RESIDENTIAL)



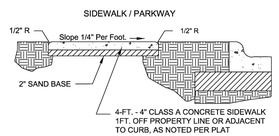
PLAN VIEW



EXPANSION JOINT



WEAKENED PLANE JOINT



TYPICAL SECTION

NOTES:

1. EXPANSION JOINTS ARE TO BE USED BETWEEN CONCRETE DRIVEWAY AND SIDEWALK.
2. SCORED JOINTS DENOTE SIDEWALK ACROSS THE DRIVEWAY AND ARE TO BE PLACED AT LEAST 1/3 rd. THROUGH THE SLAB THICKNESS.
3. ALL SIDEWALK AND DRIVEWAY CONSTRUCTION SHALL MEET A.D.A. SPECIFICATIONS.

DATE APPROVED: 07/2008	DWG. NO: ST-016	SCALE: N.T.S.
DRAWN BY: RAS	SHEET: 1 OF 1	
FILENAME: SIDEWALK (RESIDENTIAL)		

City of New Braunfels
ENGINEERING DEPARTMENT

STREET DETAILS (3 OF 3)

PARKSIDE PHASE 5

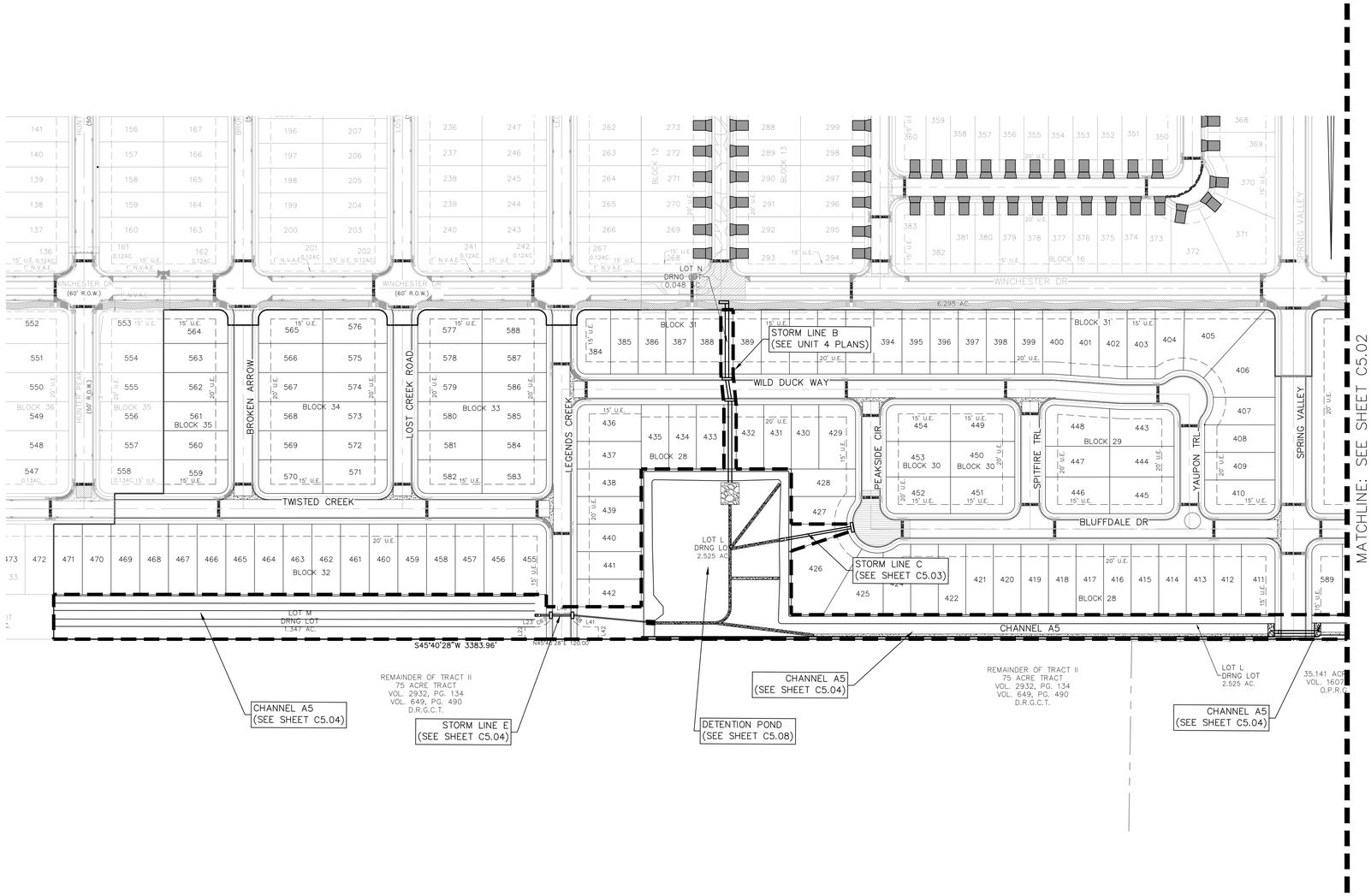
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C4.19

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\CDs\337.042_STREET_DETL.dwg User: philipm Dec 06, 2024 - 12:22pm



LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
	FLOW ARROW
	EXISTING GROUND LEFT (EG LT)
	EXISTING GROUND RIGHT (EG RT)
	EXISTING GROUND CENTER (EG CTR)
	PROPOSED TOP OF CURB (PR TC)

DRAINAGE FEATURES, DETENTION BASIN MAINTENANCE AND EQUIPMENT ACCESS REQUIREMENTS:

A. TO LIMIT EROSION, NO UNVEGETATED AREA SHALL EXCEED 10 SQ. FT. IN EXTENT.

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STATE OF TEXAS
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93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

OVERALL STORM (1 OF 2)

PARKSIDE PHASE 5

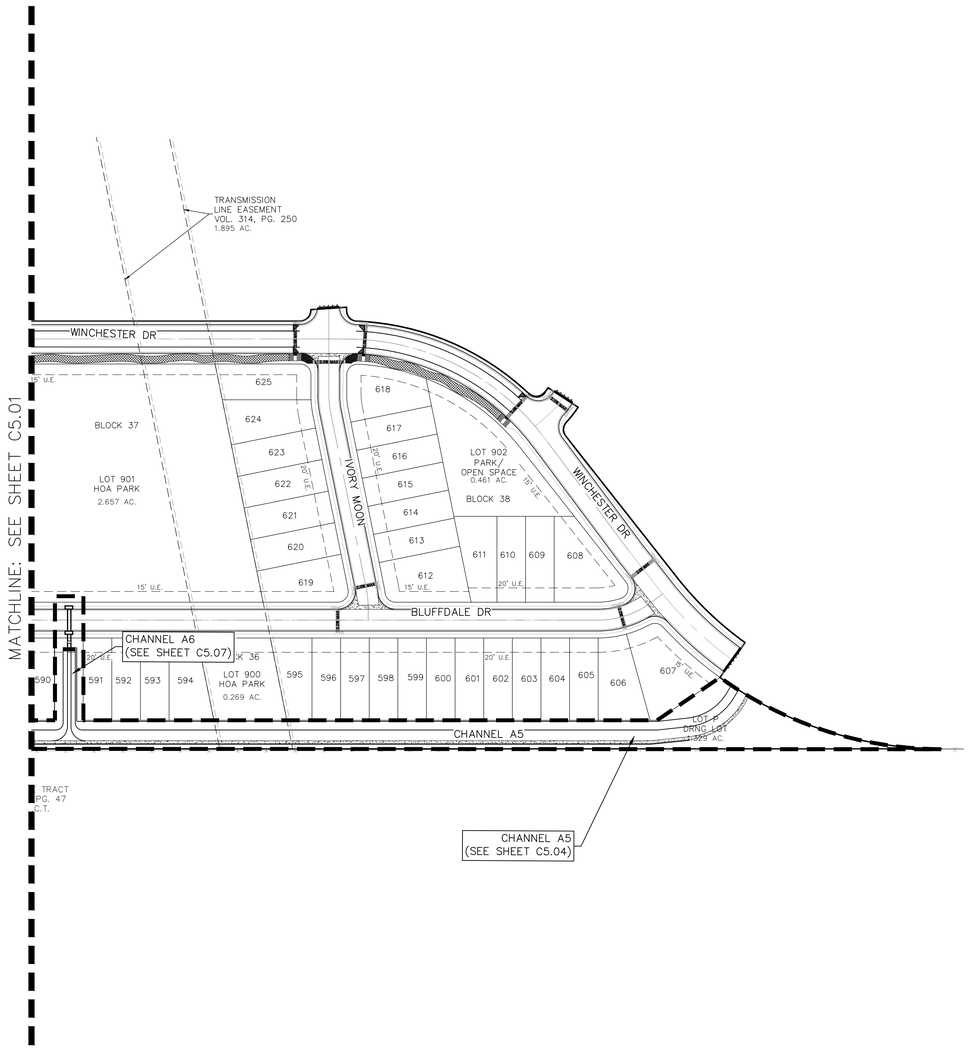
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C5.01

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cds\337.042_OVERALL STORM.dwg User: philipm Dec 06, 2024 - 12:23pm



0 50 100 200

HORIZONTAL SCALE: 1:100

LEGEND

- EXISTING CONTOURS
- 700 PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- FLOW ARROW
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)

DRAINAGE FEATURES, DETENTION BASIN MAINTENANCE AND EQUIPMENT ACCESS REQUIREMENTS:

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HMT ENGINEERING & SURVEYING

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93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

OVERALL STORM (2 OF 2)

PARKSIDE PHASE 5

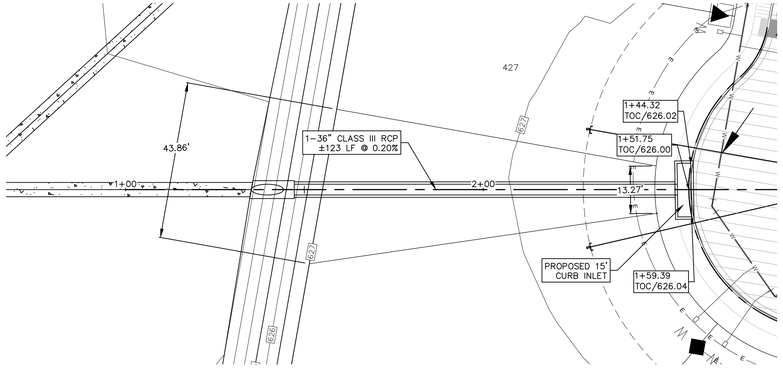
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
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HMT PROJECT NO.:	337.042

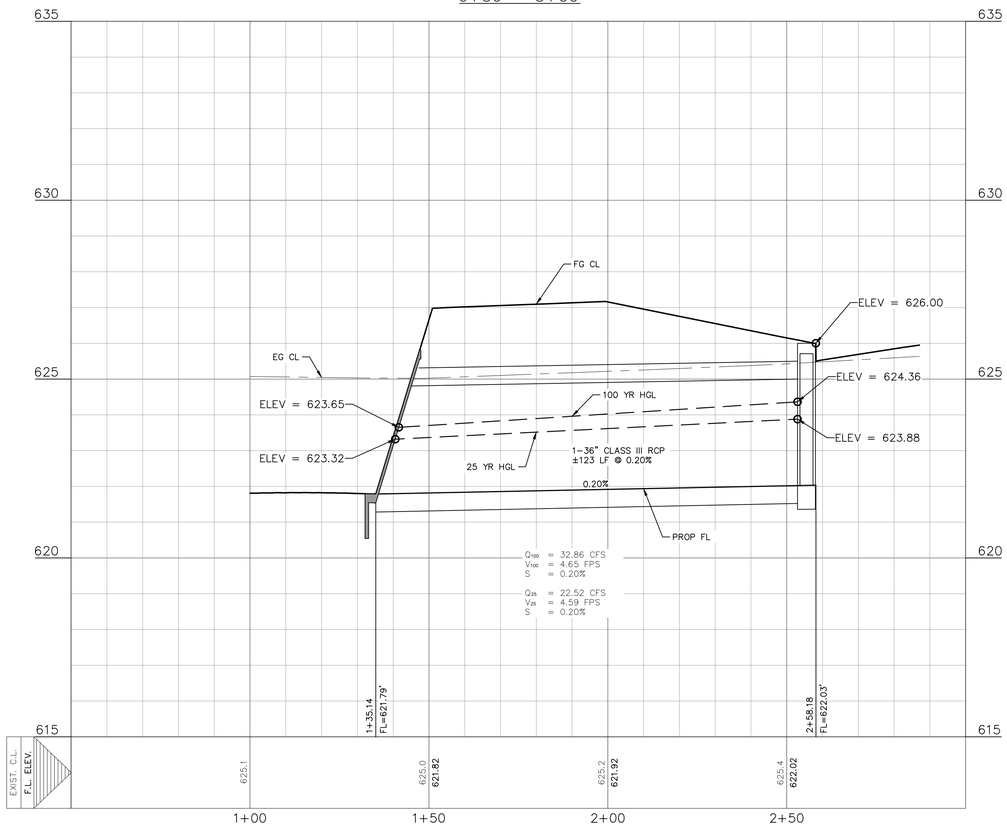
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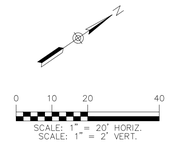
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Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cds\337.042_OVERALL STORM.dwg User: philipm Dec 06, 2024 - 12:24pm



STORM LINE C
0+50 – 3+00





LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- FLOW ARROW
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)

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12/06/2024

STORM LINE C
PLAN & PROFILE

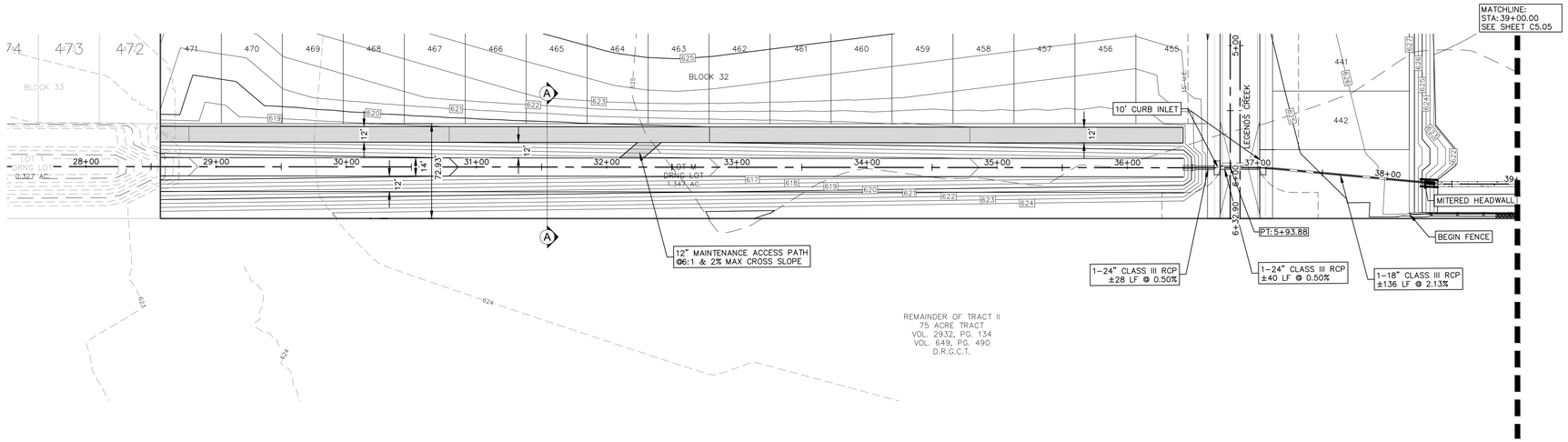
PARKSIDE PHASE 5

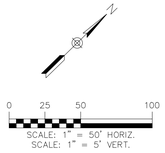
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C5.03

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cbh\337.042_STRM LINE C P&P.dwg User: philipm Dec 06, 2024 - 12:25pm





LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- FLOW ARROW
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
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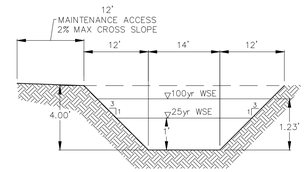
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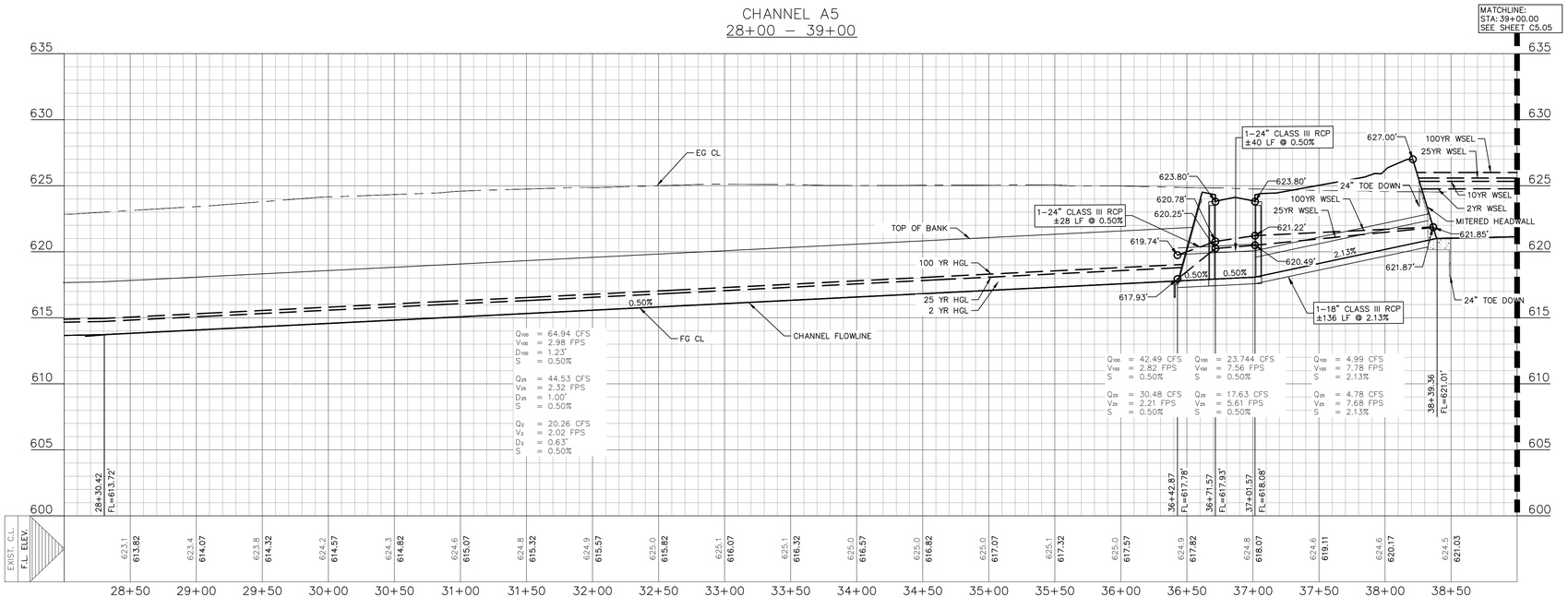
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① CHANNEL A5 SECTION A–A
N.T.S.



290 S. CASTELL AVE., STE. 100
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TBPE FIRM F-10961
TBPLS FIRM 1053600
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STATE OF TEXAS
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93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

CHANNEL A5 PLAN & PROFILE (1 OF 3)

PARKSIDE PHASE 5

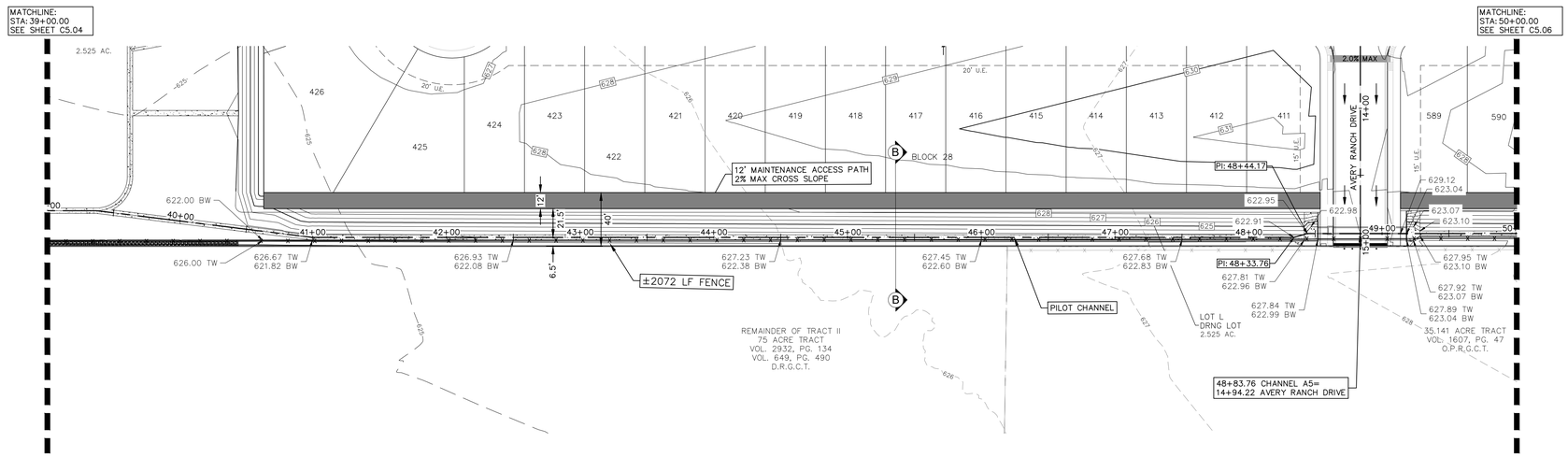
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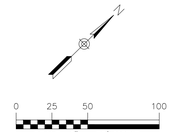
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C5.04

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LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- FLOW ARROW
- EXISTING GROUND LEFT (EG LT)
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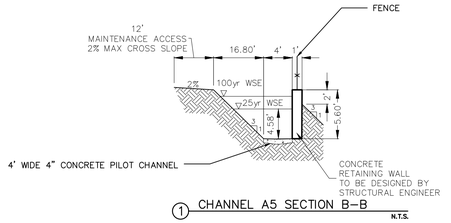
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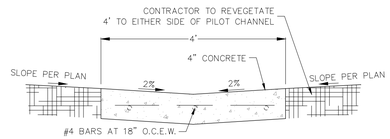
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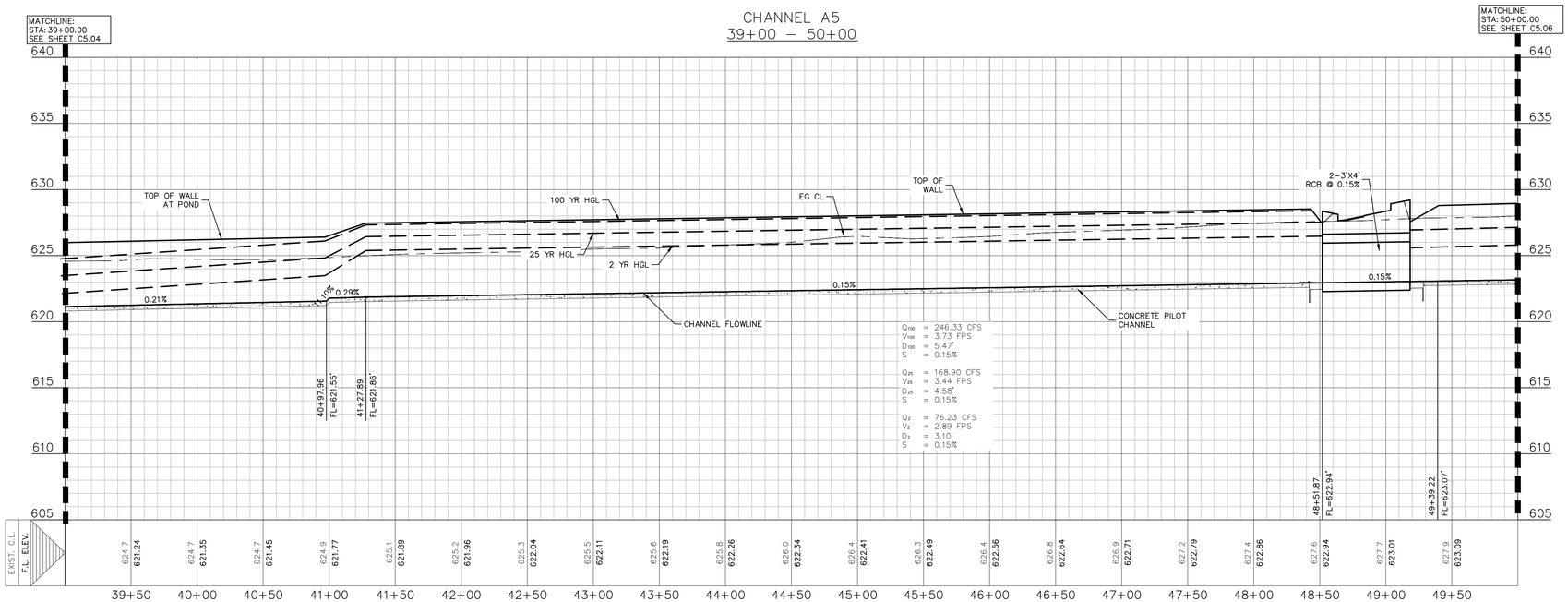


① CHANNEL A5 SECTION B–B N.T.S.



② PILOT CHANNEL N.T.S.

CHANNEL A5
39+00 – 50+00



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CHANNEL A5 PLAN & PROFILE (2 OF 3)

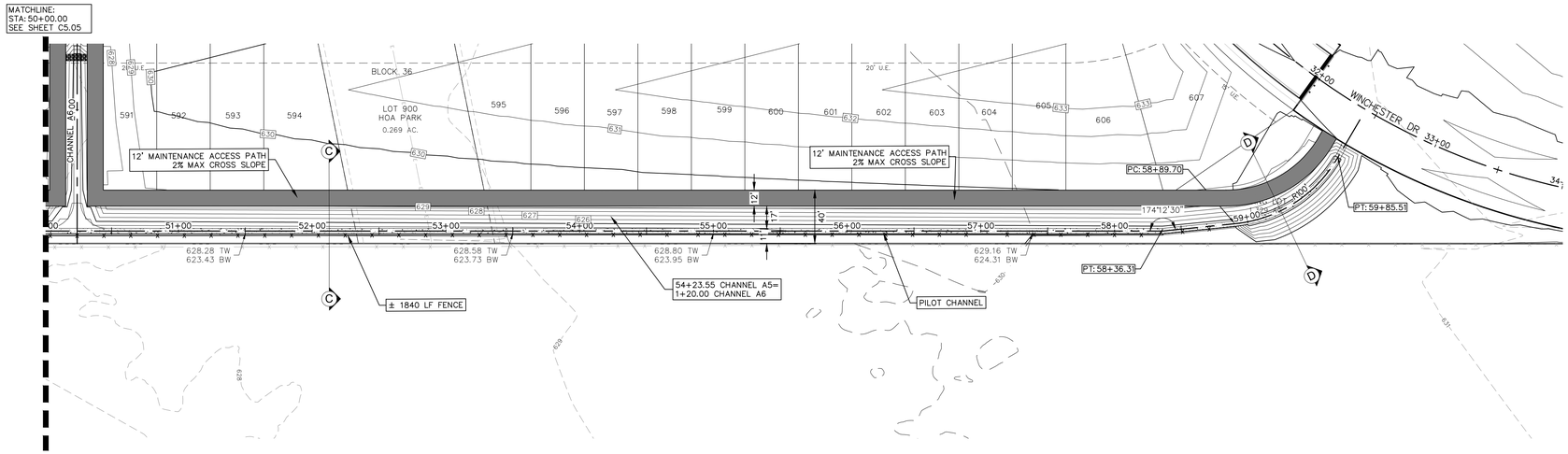
PARKSIDE PHASE 5

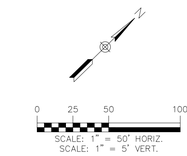
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C5.05

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LEGEND

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- PROPOSED CONTOURS
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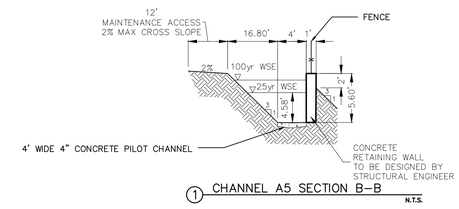
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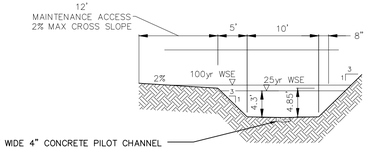
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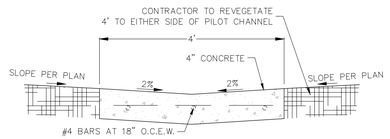
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① CHANNEL A5 SECTION B–B N.T.S.

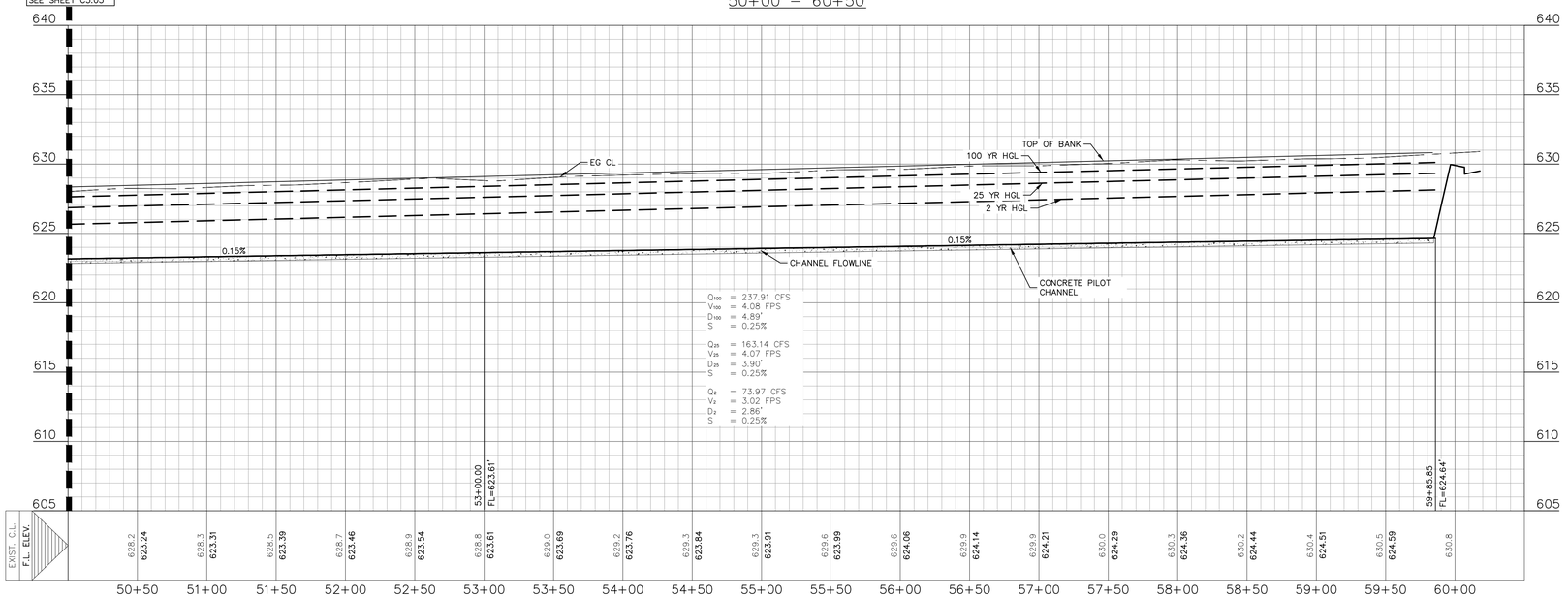


② CHANNEL A5 SECTION D–D N.T.S.



③ PILOT CHANNEL N.T.S.

CHANNEL A5
50+00 – 60+50



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CHANNEL A5 PLAN & PROFILE (3 OF 3)

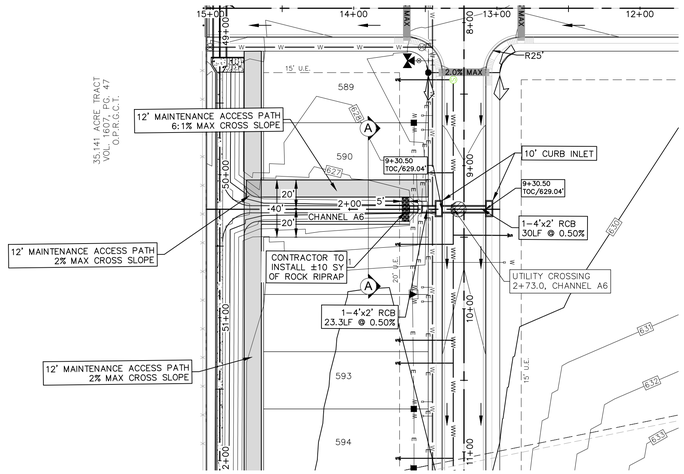
PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

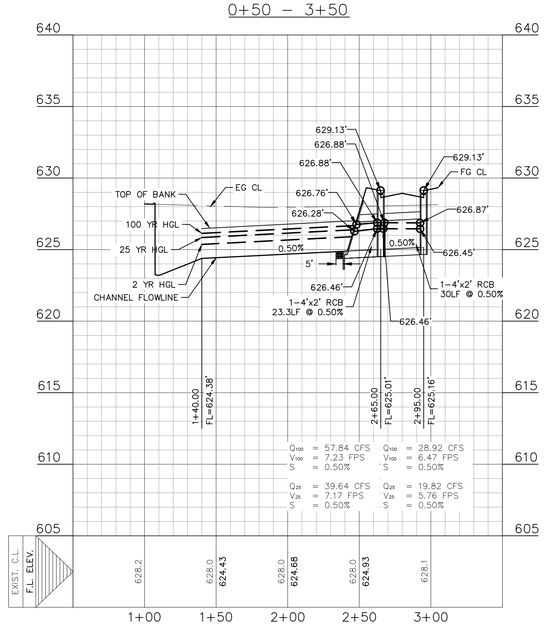
DATE:	DECEMBER 2024
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REVIEWED BY:	CVH
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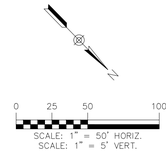
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C5.06

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CHANNEL A6
0+50 – 3+50





LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
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- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
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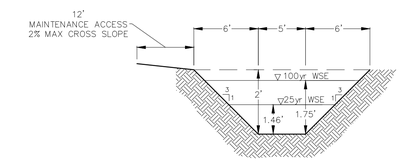
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A CHANNEL A6
N.T.S

Q_{100} = 57.84 CFS
V_{100} = 3.22 FPS
D_{100} = 1.75'
S = 0.50%

Q_{25} = 39.64 CFS
V_{25} = 2.89 FPS
D_{25} = 1.46'
S = 0.50%

Q_2 = 18.11 CFS
V_2 = 2.33 FPS
D_2 = 0.98'
S = 0.50%

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12/06/2024

CHANNEL A6 PLAN & PROFILE

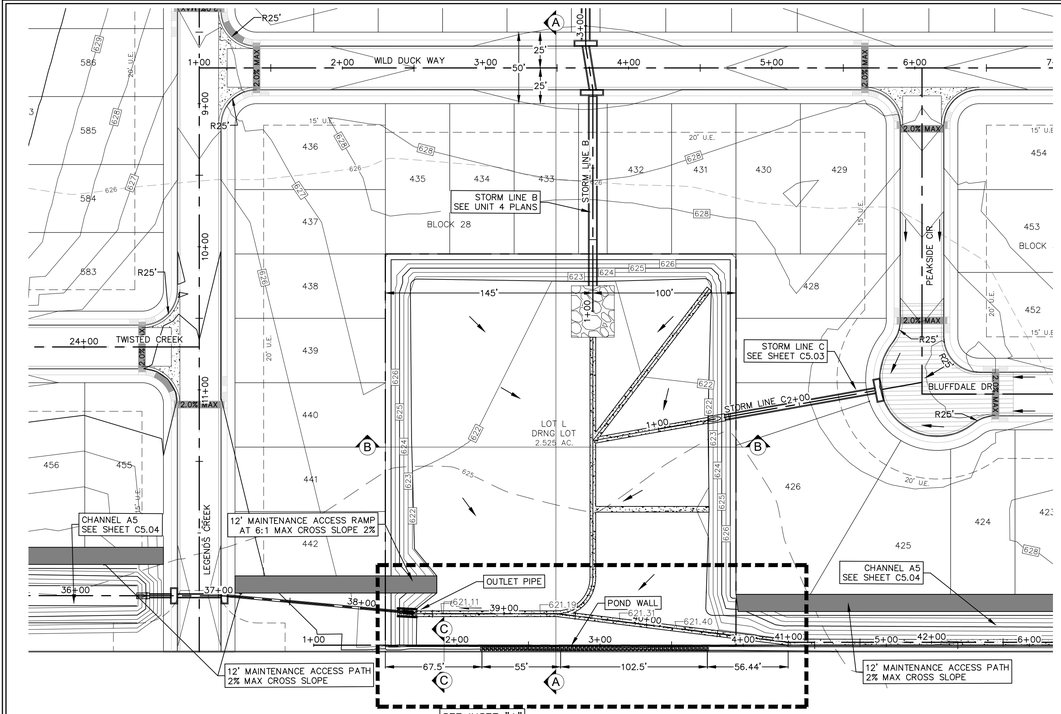
PARKSIDE PHASE 5

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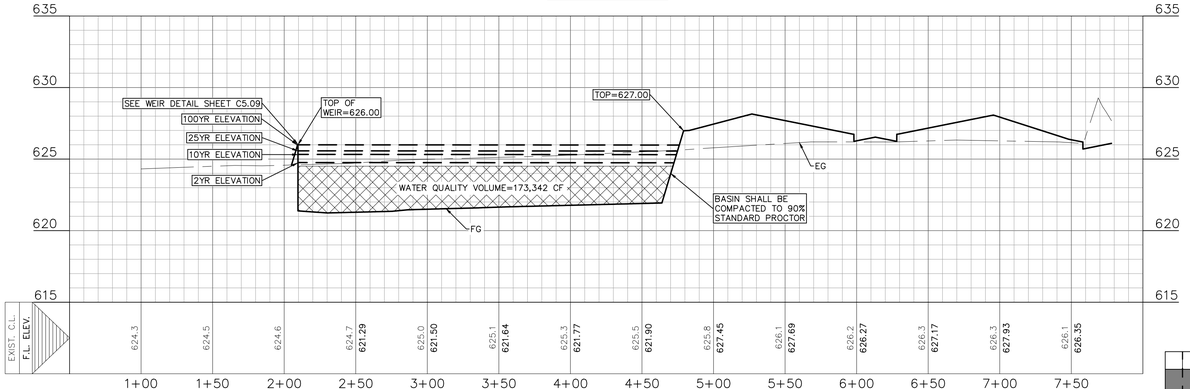
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SHEET
C5.07

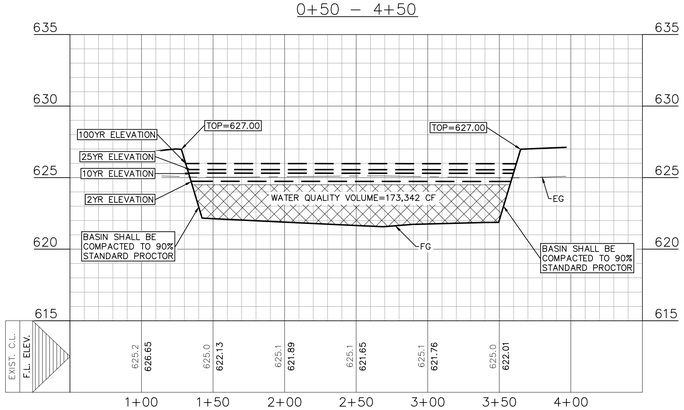
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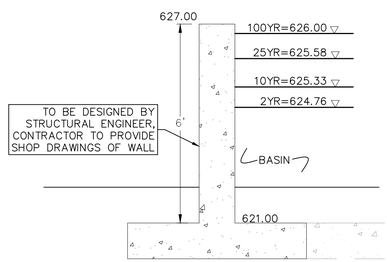


POND SECTION A–A
0+50 – 8+00



POND SECTION B–B
0+50 – 4+50





② OUTFALL SECTION C–C
N.T.S.

Table 6 - Detention/ Water Quality Basin Prop Summary

	2-YEAR	10-YEAR	25-YEAR	100-YEAR
Total Peak Storage Volume (cf)	196,012	234,105	251,371	281,706
Water Quality Storage Volume (cf)	173,342	173,342	173,342	173,342
Detention Storage Volume (cf)	22,670	60,763	78,029	108,364
Pond Release Rate(cfs)	28.26	115.47	165.38	2418.07
Water Surface Elevation(ft)	624.83	625.36	625.6	626.00
Water Depth(ft)	3.83	4.36	4.60	5.00
Freeboard(ft)	2.17	1.64	1.40	1.00

Table 7 - Proposed Dentention/Water Quality Pond Summary

	Basin B
Impervious Cover (70% for Residential watershed) (sf)	1,466,665
Required WQ Volume (cuft) = Impervious Cover (1/2" * 1.20)	73,333
Provided Water Quality Volume (cuft)	173,342
Orifice Outlet Size (in)	7.00

Table 8 - Water Quality Drain Time Calculation*

100 Year WSE	626.00
Bottom of Pond	621.00
Top of SWQ	624.50
SWQ Depth	3.5
Size SWQ Orifice (ft)	0.58
Area of openings (sf)	0.27
Effective Head for 1/2 drainage H_0 (Assumes WQ Pond is 3/4 full)	2.33
Effective Head for full drainage H_0 (Assumes WQ Pond is 1/2 full)	1.46
Volume of SWQ (CF)	173,342
1/2 SWQ Volume (CF)	86,671
1/2 Drainage Average Discharge Rate (cfs)	1.96
Time to drain 1/2 WQV (hr)	**12.3**
Time to Drain half WQV Over 12 Hours?	Yes
Full Drainage Average Discharge Rate (cfs)	1.55
Time to Drain Full WQV (hr)	**31.0**
Time to Drain Full WQV Over 24 Hours?	Yes
Detention and Water Quality Drain Time Calculation**	
Head above Weir Crest (ft)	1.50
Broad-Crested Weir Length (ft)	55.00
Broad-Crested Weir Coefficient	2.60
Detention Volume of Pond (cf)	108,364
Full Detention Pond Average Discharge Rate (cfs)	262.71
Time to Drain Detention Volume (hr)	**0.11**
Required Time to Drain less than 36 hours?	Yes

LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
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- D.E. — DRAINAGE EASEMENT
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SCALE: 1" = 50' HORIZ.
SCALE: 1" = 5' VERT.

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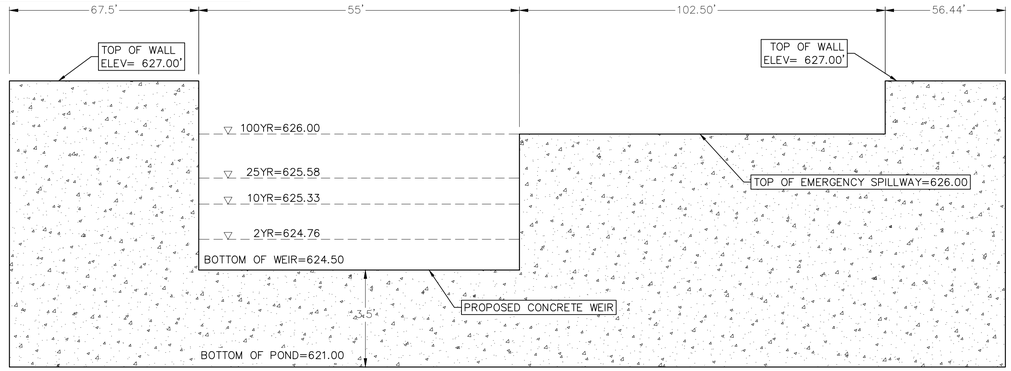
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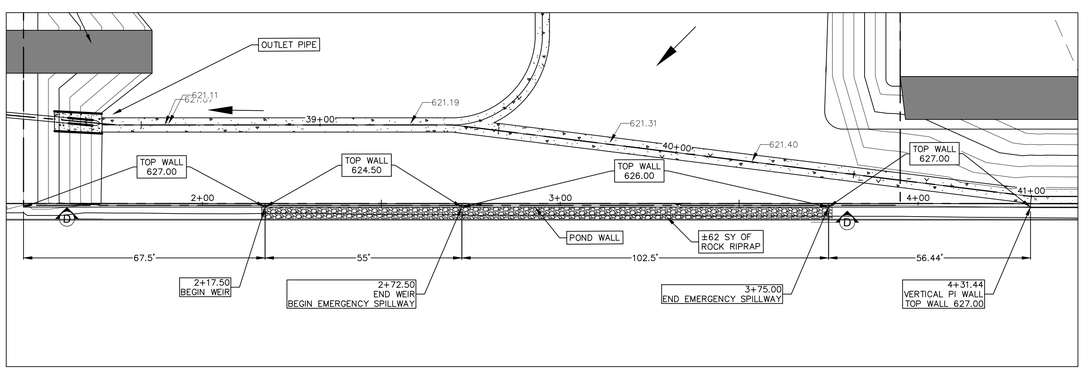
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① INSIDE BASIN B OUTFALL SECTION
N.T.S.



INSET "A"
SCALE 1"=20'

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DETENTION POND PLAN & PROFILE

PARKSIDE PHASE 5

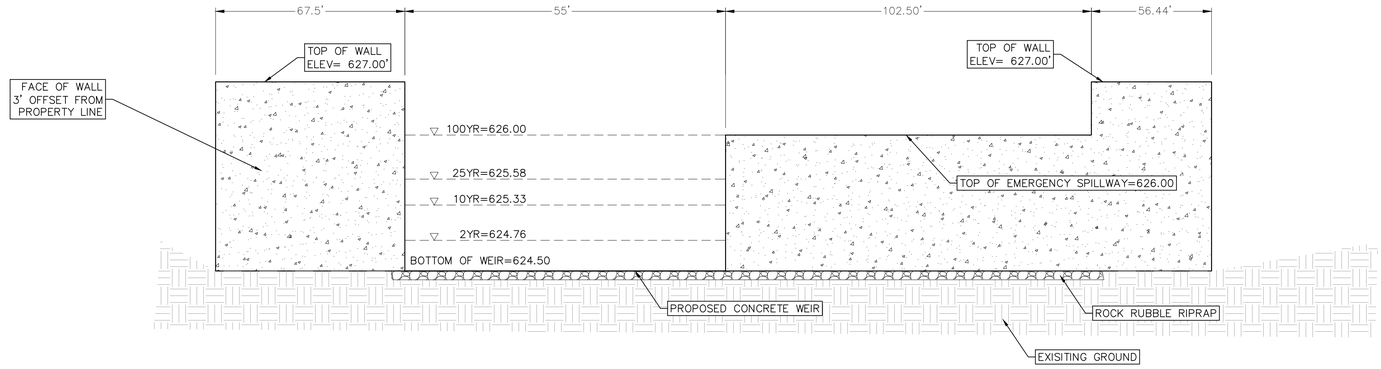
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	**DECEMBER 2024**
DRAWN BY:	**RR**
DESIGNED BY:	**MTA**
REVIEWED BY:	**CVH**
HMT PROJECT NO.:	**337.042**

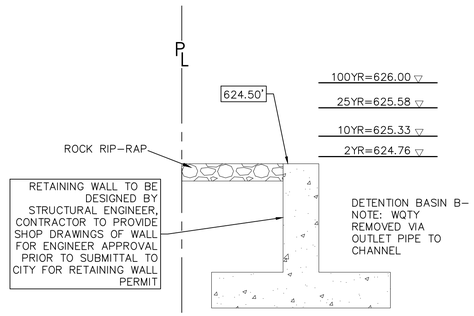
SHEET

C5.08

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cb\337.042_POND P&P.dwg User: philipm Dec 06, 2024 - 12:28pm



4 SECTION D–D @ PROPERTY LINE
N.T.S.



3 OUTFALL SECTION E–E
N.T.S.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24–HOURS PRIOR TO COMMENCING CONSTRUCTION.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

POND DETAILS

PARKSIDE PHASE 5

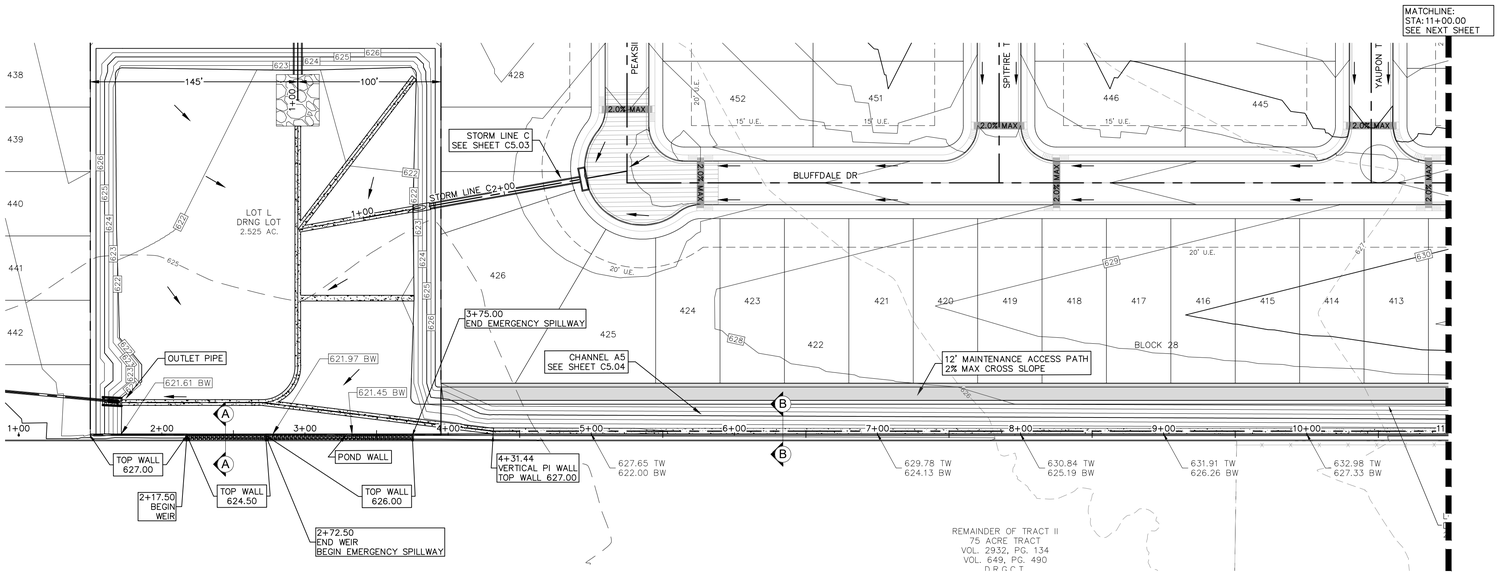
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	**DECEMBER 2024**
DRAWN BY:	**RR**
DESIGNED BY:	**MTA**
REVIEWED BY:	**CVH**
HMT PROJECT NO.:	**337.042**

SHEET

C5.09

Drawing Name: M:_Projects\337 – Lennar Homes\042 – Parkside Unit 5\Cds\337.042_POND P&P.dwg User: philipm Dec 06, 2024 - 12:28pm



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- FLOW ARROW
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)

0 25 50 100

SCALE: 1" = 50' HORIZ.
SCALE: 1" = 5' VERT.

DRAINAGE FEATURES, DETENTION BASIN MAINTENANCE AND EQUIPMENT ACCESS REQUIREMENTS:

A. TO LIMIT EROSION, NO UNVEGETATED AREA SHALL EXCEED 10 SQ. FT. IN EXTENT.

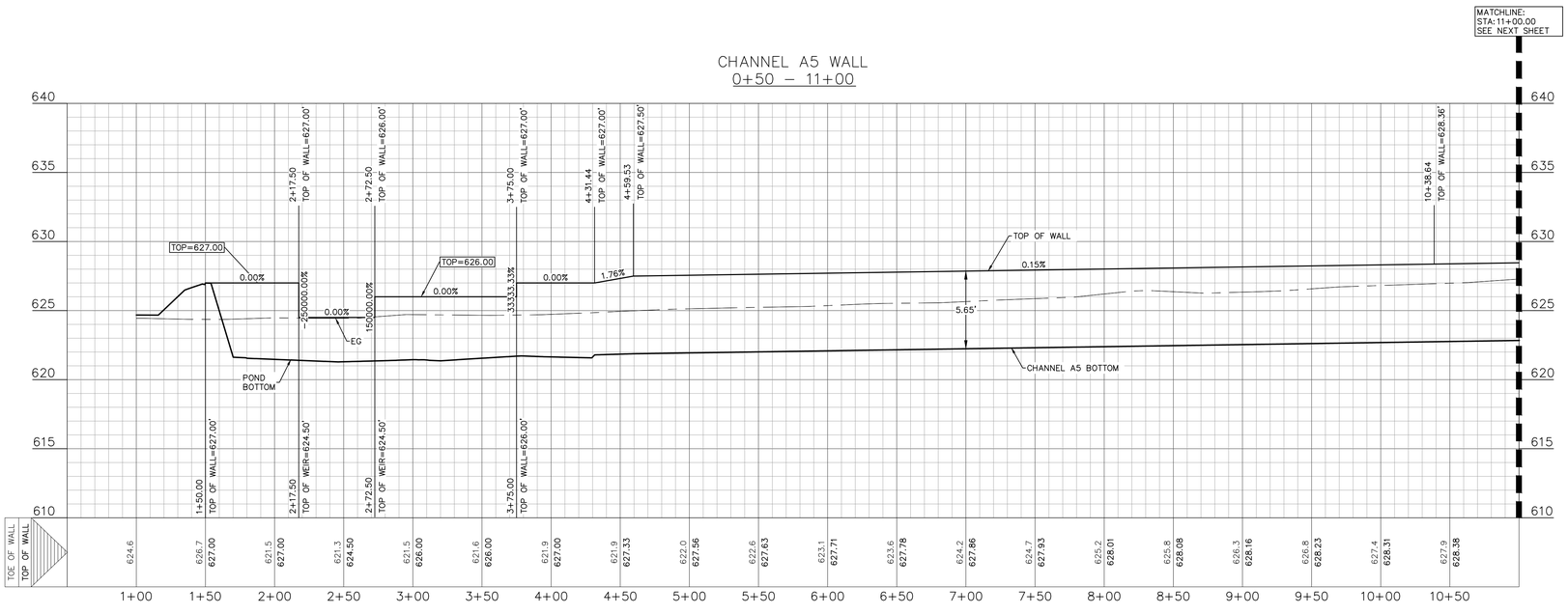
B. ACCUMULATED PAPER, TRASH, AND DEBRIS SHALL BE REMOVED FROM CHANNELS AND STORM SEWERS EVERY 6 MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION.

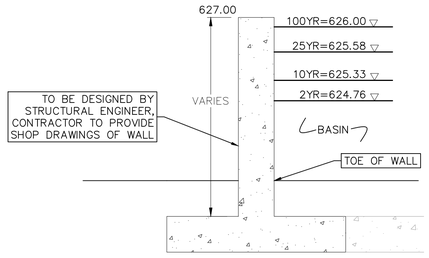
C. BASINS AND CHANNELS SHALL BE MOWED ANNUALLY BETWEEN THE MONTHS OF JUNE AND SEPTEMBER.

D. CORRECTIVE MAINTENANCE IS REQUIRED ANY TIME A BASIN OR CHANNEL DOES NOT DRAIN COMPLETELY WITHIN 60 HOURS OR CESSATION OF INFLOW (IE: NO STANDING WATER IS ALLOWED).

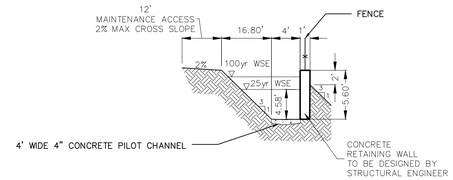
E. STRUCTURAL INTEGRITY OF BASINS AND CHANNELS SHALL BE MAINTAINED AT ALL TIMES.

F. MAINTENANCE VEHICLE FOR POND AND CHANNEL ACCESS SHOULD BE A BOBCAT S175 SKID STEER LOADER OR VEHICLE OF EQUAL TO LESSER SIZE.





② OUTFALL SECTION A–A
N.T.S.



② OUTFALL SECTION B–B
N.T.S.

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TBPLS FIRM 1053600

HMT
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STATE OF TEXAS
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93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

CHANNEL A5 WALL EXHIBIT PLAN & PROFILE (1 OF 2)

PARKSIDE PHASE 5

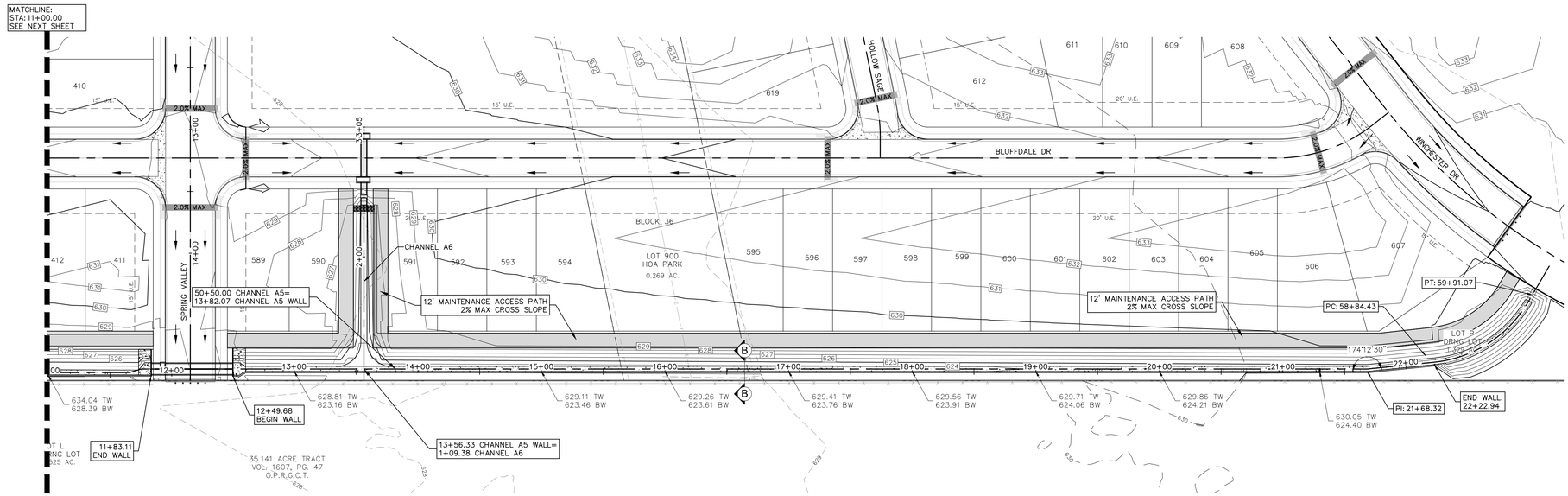
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C5.10

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03a\337042_CHANNEL A5 WALL EXHIBIT P&P.dwg User: philipm Dec 06, 2024 - 12:30pm



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- FLOW ARROW
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CTR)
- PROPOSED TOP OF CURB (PR TC)

0 25 50 100

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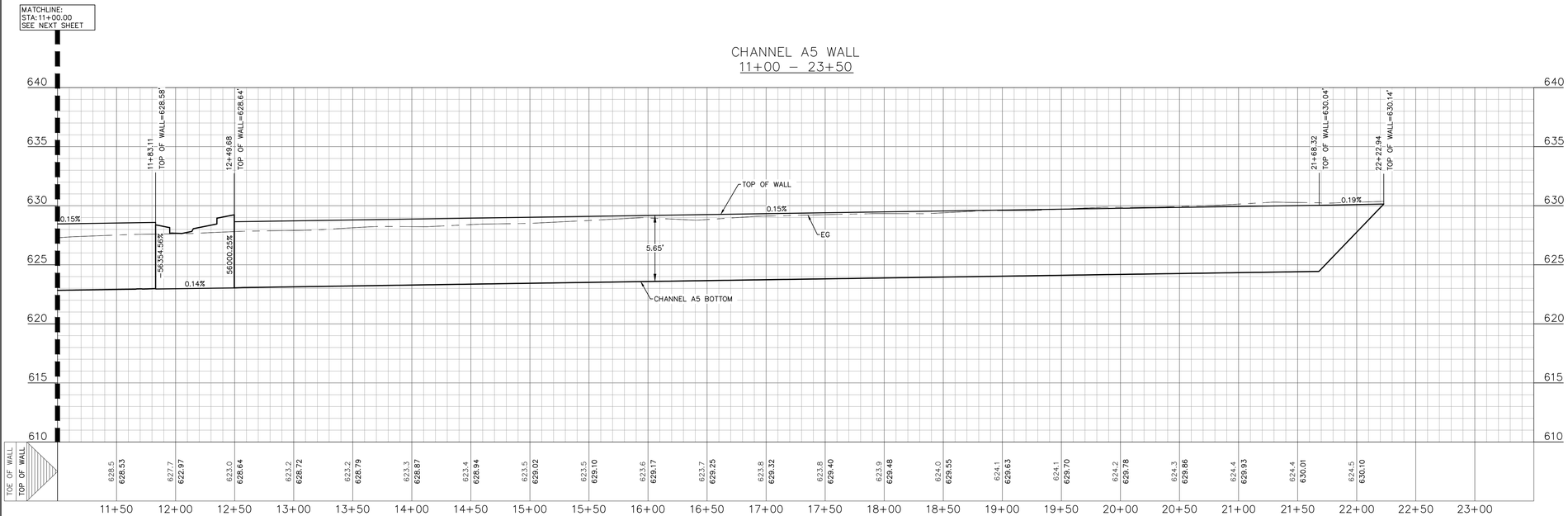
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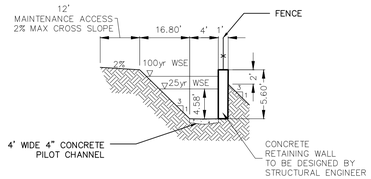
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2 OUTFALL SECTION B–B
N.T.S.

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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

CHANNEL A5 WALL EXHIBIT PLAN & PROFILE (2 OF 2)

PARKSIDE PHASE 5

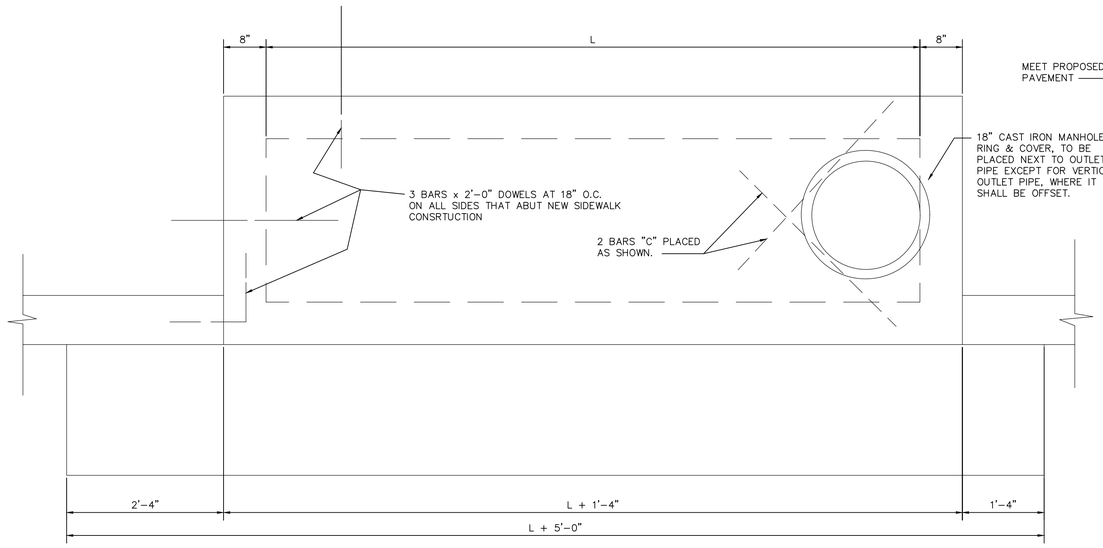
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

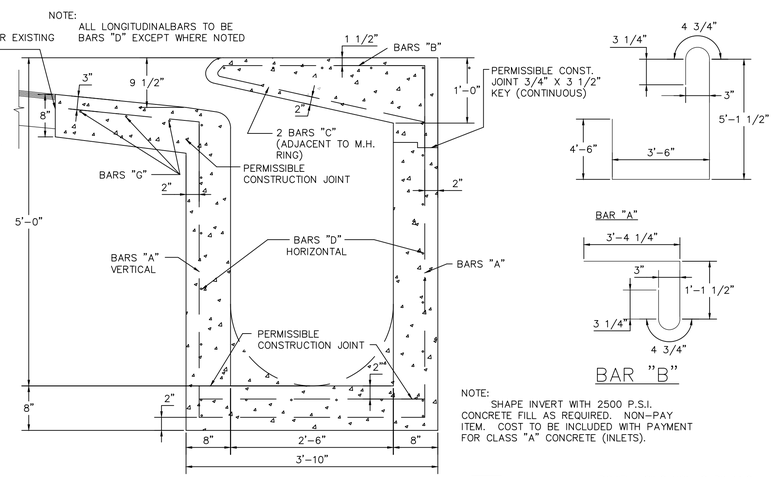
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Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03a\337042_CHANNEL A5 WALL EXHIBIT P&P.dwg User: philpm Dec 06, 2024 - 12:30pm



PLAN VIEW

SCALE: N.T.S.

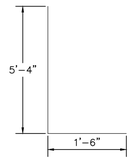


SECTION A–A

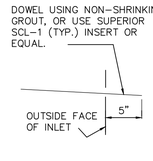
SCALE: N.T.S.

BAR "B"

NOTE:
SHAPE INVERT WITH 2500 P.S.I. CONCRETE FILL AS REQUIRED. NON-PAY ITEM. COST TO BE INCLUDED WITH PAYMENT FOR CLASS "A" CONCRETE (INLETS).



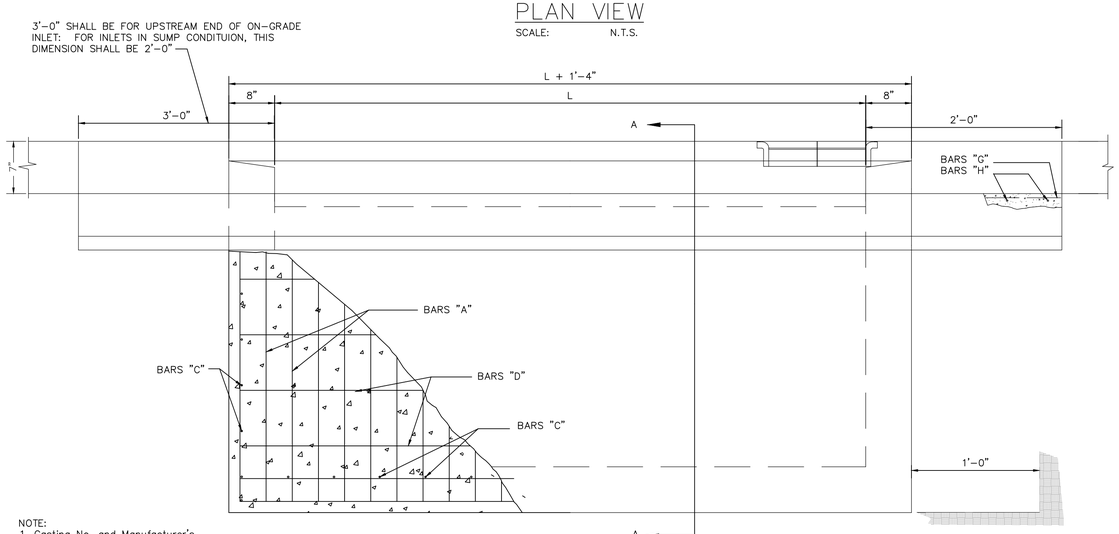
BAR "E"



BAR "F"

Reinforcing Steel Schedule						
	BAR	NO.	SIZE	SPA.	LENGTH	WEIGHT
L=5'-00"	A	15	4	5"OC	13"-9 1/2"	138
	B	15	4	5"	5'-1"	52
	C	23	4	9"	3'-6"	54
	D	22	4	10"	6'-1"	89
	E	10	4	10 1/2"	6'-10"	46
	F	6	5	12"	2'-3"	14
	G	3	4	12"	9'-8"	20
	H	5	5	12"	1'-8"	9
*CONCRETE TOTAL=3.53 CY. MANHOLE CASTING=100 LBS. STEEL TOTAL=422 LBS.						
10'	A	27	4	5"OC	13"-9 1/2"	249
	B	27	4	5"	5'-1"	93
	C	30	4	9"	3'-6"	70
	D	22	4	10"	11'-1"	163
	E	10	4	10 1/2"	6'-10"	46
	F	12	5	12"	2'-3"	27
	G	3	4	12"	14'-8"	30
	H	5	5	12"	1'-8"	9
*CONCRETE TOTAL=5.75CY MANHOLE CASTING=100LBS. STEEL TOTAL=687LBS						
15'	A	39	4	5"OC	13"-9 1/2"	359
	B	39	4	5"	5'-1"	134
	C	36	4	9"	3'-6"	84
	D	22	4	10"	16'-1"	236
	E	10	4	10 1/2"	6'-10"	46
	F	17	5	12"	2'-3"	38
	G	3	4	12"	19'-8"	40
	H	5	5	12"	1'-8"	9
*CONCRETE TOTAL=7.97CY. MANHOLE CASTING=100LBS STEEL TOTAL=946LBS						
20'	A	51	4	5"OC	13"-9 1/2"	470
	B	51	4	5"	5'-1"	175
	C	43	4	9"	3'-6"	101
	D	22	4	10"	6'-1"	310
	E	10	4	10 1/2"	6'-10"	46
	F	22	5	12"	2'-3"	50
	G	3	4	12"	9'-8"	50
	H	5	5	12"	1'-8"	9
*CONCRETE TOTAL=10.19CY MANHOLE CASTING=100LBS STEEL TOTAL=1211LBS						
25'	A	63	4	5"OC	13"-9 1/2"	580
	B	63	4	5"	5'-1"	217
	C	50	4	9"	3'-6"	117
	D	22	4	10"	6'-1"	383
	E	10	4	10 1/2"	6'-10"	46
	F	27	5	12"	2'-3"	61
	G	3	4	12"	9'-8"	60
	H	5	5	12"	1'-8"	9
*CONCRETE TOTAL=12.41CY. MANHOLE CASTING=100LBS STEEL TOTAL=1473LB						
30'	A	75	4	5"OC	13"-9 1/2"	691
	B	75	4	5"	5'-1"	258
	C	56	4	9"	3'-6"	131
	D	22	4	10"	6'-1"	457
	E	10	4	10 1/2"	6'-10"	46
	F	32	5	12"	2'-3"	72
	G	3	4	12"	9'-8"	70
	H	5	5	12"	1'-8"	9
*CONCRETE TOTAL=14.63CY MANHOLE CASTING=100LBS STEEL TOTAL=1734LB						

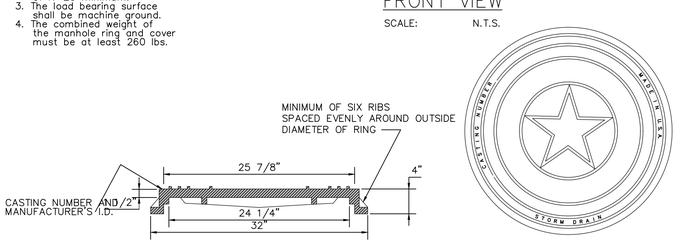
*These figures do not exclude concrete and steel intercepted by Manhole and Reinforced Concrete Pipe.
*Includes concrete gutter for on-grade inlet. Reduce by .05 cy for inlets in sump.



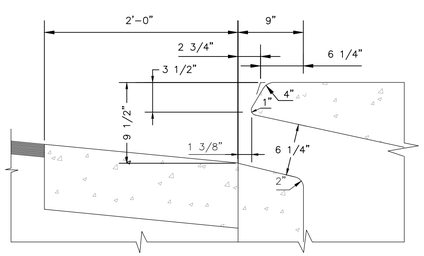
FRONT VIEW

SCALE: N.T.S.

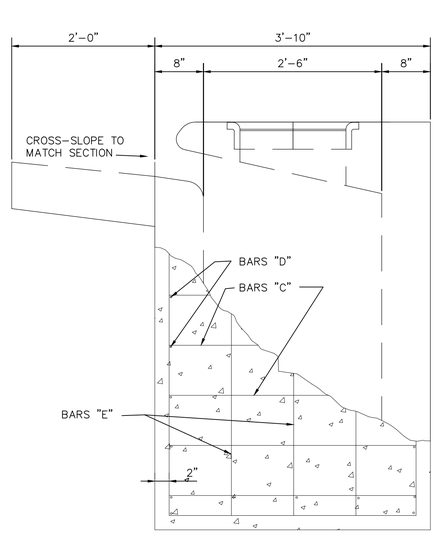
NOTE:
1. Casting No. and Manufacturer's I.D. on lid and ring.
2. Load bearing capability of N-20 minimum.
3. The load bearing surface shall be machine ground.
4. The combined weight of the manhole ring and cover must be at least 260 lbs.



MANHOLE RING & COVER DETAILS

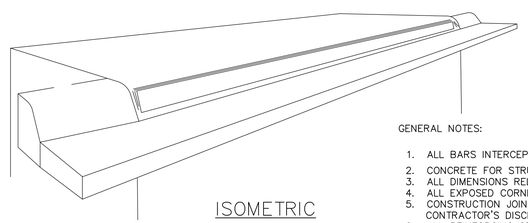


OPENING DETAIL FOR CURB SECTION



SIDE VIEW

SCALE: N.T.S.



ISOMETRIC

GENERAL NOTES:

1. ALL BARS INTERCEPTING MANHOLE RING & REINFORCING CONCRETE PIPE SHALL BE FIELD CUT.
2. CONCRETE FOR STRUCTURES SHALL BE CLASS "A", 3000 P.S.I. IN 28 DAYS.
3. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
4. ALL EXPOSED CORNERS SHALL BE CHAMFERED TO 3/4"
5. CONSTRUCTION JOINT SHOWN AT FLOWLINE MAY BE RAISED A MAXIMUM OF 6" AT THE CONTRACTOR'S DISCRESION. ADJUST LENGTH OF VERTICAL STEEL AS REQUIRED.
6. ALL REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. A-615, GRADE 60.

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12/06/2024

STORM DETAILS (1 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

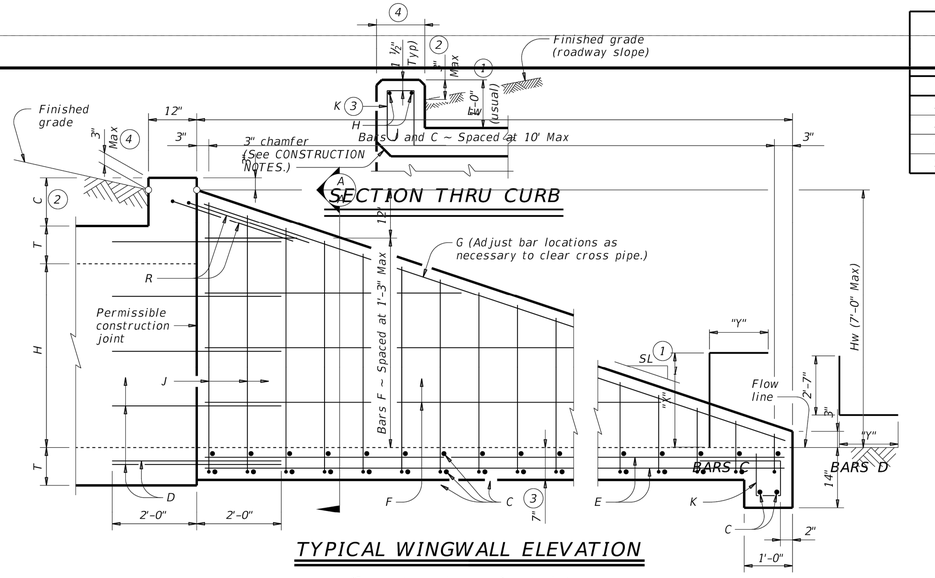
SHEET

C5.12

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337.042_STORM DETAILS.dwg User: philipm Dec 06, 2024 - 12:30pm

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TYPICAL SECTION

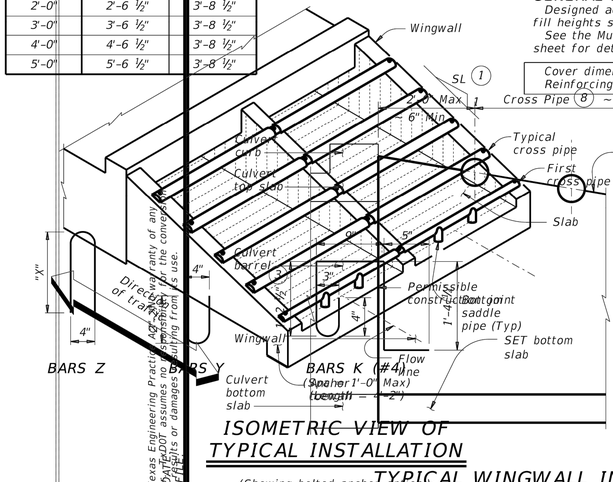


TYPICAL WINGWALL ELEVATION

(Cross pipes not shown for clarity.)

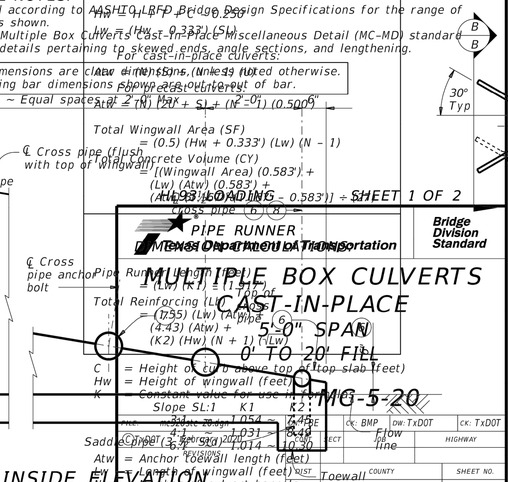
TABLE OF BAR DIMENSIONS

H	"X"	"Y"
2'-0"	2'-6 ½"	3'-8 ½"
3'-0"	3'-6 ½"	3'-8 ½"
4'-0"	4'-6 ½"	3'-8 ½"
5'-0"	5'-6 ½"	3'-8 ½"



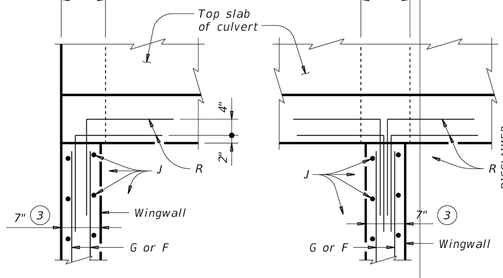
ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing bolted anchor option.)



TYPICAL WINGWALL INSIDE ELEVATION

(Showing installation of cross pipes.)

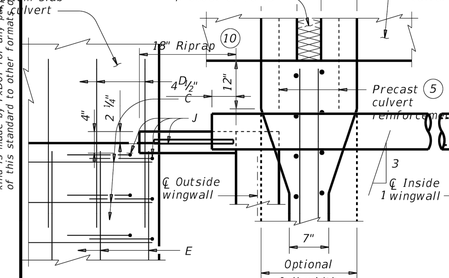


SECTION A-A

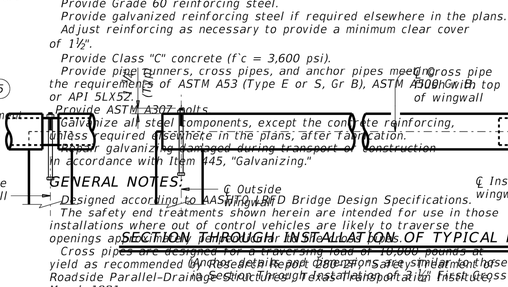
(Showing typical wingwall and wing slab reinforcing. Pipe runners not shown for clarity.)

AT TOP OF EXTERIOR WINGWALL
(Cast-in-place culvert)

AT TOP OF INTERIOR WINGWALL
(Cast-in-place culvert)



AT OUTSIDE OF BOTTOM SLAB
(Cast-in-place culvert)



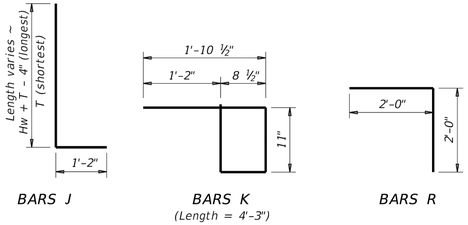
AT INTERIOR WINGWALL
(Precast culvert)

PLAN VIEWS OF CORNER DETAILS

Bar	Size	Spacing
C	#4	10" Max
D	#4	Match F and E
E	#4	1'- 0" Max
F	#4	1'- 3" Max
G	#6	As shown
J	#4	10" Max
K	#4	1'- 0" Max
R	#4	As shown

TABLE OF REINFORCING BAR SIZES AND SPACING

1. Provide 6:1 or flatter slope.
2. 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures without railing and curbs taller than 1'-0", refer to Extended Curb Details the Extended Curb Details (ECD) standard sheet.
3. Wingwall and slab thicknesses may be the same as the adjacent culvert wall and slab thicknesses (7" Minimum). If thicknesses greater than the minimum (7") are used, no changes will be made in quantities and no additional compensation will be allowed.
4. For vehicle safety, reduce height, if necessary, to provide a maximum 3" projection above finished grade. No changes will be made in quantities and no additional compensation will be allowed for this work.
5. For culverts with C = 0", the precast culvert reinforcing may extend 1'-0" minimum into wingwall. Wingwall bars D and R may be omitted. Otherwise, refer to the Wingwall Connection detail on the Box Culvert Precast Miscellaneous Details (SCP-MD) standard sheet.



BARS J

BARS K
(Length = 4'-3")

BARS R

DATE:
FILE:

DESIGN NOTES:

Do not use permanent forms.
Chamfer the bottom edge of the top slab 3" at the entrance.
Optionally, raise construction joints shown at the flow line by a maximum of 6". If this option is taken, Bars M may be cut off or raised, Bars C and D may be reversed, and Bars Y and Z may be reversed.

MATERIAL NOTES:

Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
Provide Class C concrete (f'c = 3,600 psi) for culvert barrel and curb, with the following exceptions: provide Class S concrete (f'c = 4,000 psi) for top slabs of:
- culverts with overlay,
- culverts with 1-to-2 course surface treatment, or
- culverts with the top slab as the final riding surface.

Provide bar laps, where required, as follows:
- Uncoated or galvanized ~ #4 = 1'-8" Min
- Uncoated or galvanized ~ #5 = 2'-1" Min
- Uncoated or galvanized ~ #6 = 2'-5" Min

GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications for the range of fill heights shown.
See the Multiple Box Culverts Cast-In-Place Miscellaneous Detail (MC-MD) standard sheet for details pertaining to skewed ends, angle sections, and lengthening of cast-in-place culverts.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.

WING DIMENSION CALCULATIONS:

$Hw = (Hw - 0.333') (SL)$

Atw (Wingwall Length) (FT)
= (N) (2') + SL + (N - 1) (0.500')
= (N) (2') + SL + (N - 1) (0.5')

Total Wingwall Area (SF)
= (0.5) (Hw + 0.333') (Lw) (N - 1)

Total Concrete Volume (CY)
= [(Wingwall Area) (0.583') + (Lw) (Atw) (0.583') + (Apron Area) (0.583')] ÷ 27

Cross Pipe (6) (K)
= Pipe Runner (5) (K)
= (Lw) (K) = (1'-0") (K)

Total Reinforcing (LB)
= (755) (Lw) (Apron Area) + (4.43) (Atw) + (K2) (Hw) (N + 1) (Lw)

C = Height of curb above top of top slab (feet)
Hw = Height of wingwall (feet)
K = Constant value for use in LB formula

Slope SL:1	K1	K2
3:1	1.054	7.45E
4:1	1.031	8.48
6:1	1.014	10.30

Saddle pipe (3) (Sa)
Atw = Anchor toewall length (feet)
Hw = Length of wingwall (feet)
N = Number of culvert barrels
SL:1 = Side slope ratio (horizontal : 1 vertical)

See applicable box culvert standard for H, S, T, and U values.

MATERIAL NOTES:

Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
Adjust reinforcing as necessary to provide a minimum clear cover of 1½".
Provide Class "C" concrete (f`c = 3,600 psi).
Provide pipe runners, cross pipes, and anchor pipes meeting the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 (Gr B) or API 5LX52.
Provide ASTM A307 bolts.
Galvanize all steel components, except the concrete reinforcing, unless required elsewhere in the plans, after fabrication. Repair galvanizing damaged during transport or construction in accordance with Item 445, "Galvanizing."

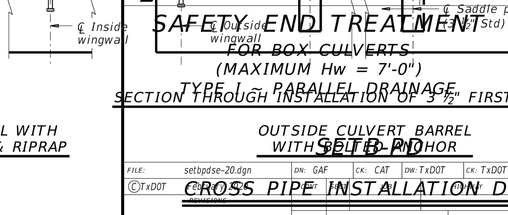
GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications.
The safety end treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings applications. Other details and dimensions are similar to those shown herein.
Cross pipes are sized for a design flow of 10,000 cfs at a velocity that will yield as recommended in the Hydraulic Design Manual for Texas Roadside Parallel-Drainage Structures, Texas Transportation Institute, March 1981.
The quantities for concrete, reinforcing steel, and cross pipes resulting from the formulas given herein are for Contractor's information only.
See the Box Culvert Supplement (BCS) standard sheet for additional dimensions and information.
Alternate design drawings bearing the seal of a professional engineer will be acceptable for precast construction of the safety end treatments.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing dimensions are out-to-out of bars.

SECTION THROUGH INSTALLATION OF TYPICAL FULL CROSS PIPE

(Section through installation of 3½" First Cross Pipe detail.)



SECTION THROUGH INSTALLATION OF 3½" FIRST CROSS PIPE

OUTSIDE CULVERT BARREL WITH OPTIONAL ANCHOR BARS & RIPRAP

OUTSIDE CULVERT BARREL WITH BOLTED ANCHOR

CROSS PIPE INSTALLATION DETAILS

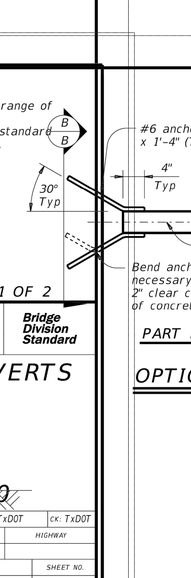
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©TxDOT	DATE: 12/06/2024	REVISIONS			

DIST	COUNTY	SHEET NO.

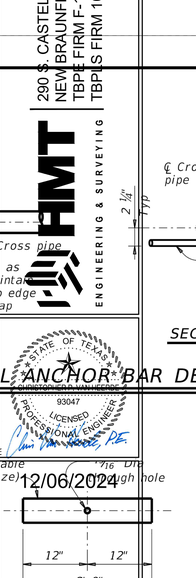
DATE:
FILE:

DISCLAIMER:
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PART PLAN



OPTIONAL ANCHOR BAR DE



SLEEVE PIPE DETAILS

SHEET 1 OF 2

Bridge Division Standard

Texas Department of Transportation

PIPE RUNNER
MULTIPLE BOX CULVERTS
CAST-IN-PLACE
5'-0" SPAN
0' TO 20' FILL
MC-5-20

FILE:	DN: TxDOT	CK: BMP	DW: TxDOT	CK: TxDOT
©TxDOT	DATE: 12/06/2024	REVISIONS		

DIST	COUNTY	SHEET NO.

SHEET 1 OF 2

Bridge Division Standard

Texas Department of Transportation

SAFETY END TREATMENT
FOR BOX CULVERTS
(MAXIMUM Hw = 7'-0")
TYPE I - PARALLEL DRAINAGE

FILE:	DN: TxDOT	CK: BMP	DW: TxDOT	CK: TxDOT
©TxDOT	DATE: 12/06/2024	REVISIONS		

DIST	COUNTY	SHEET NO.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600
HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER D. WATHERSPOON
93047
LICENSED
PROFESSIONAL ENGINEER
12/06/2024

NO.	REVISION DESCRIPTION	DATE

DATE: DECEMBER 2024
INSIDE CULVERT BARRE
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

STORM DETAILS (2 OF 3)
PARKSIDE PHASE 5

SHEET
C5.13

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\CD\337.042_STORM DETAILS.dwg User: philipm Dec 06, 2024 - 12:30pm

DISCLAIMER:
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SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing reinforced concrete pipe (RCP) culvert. Corrugated metal pipe (CMP) culvert and RCP details are similar. Riprap not shown for clarity)

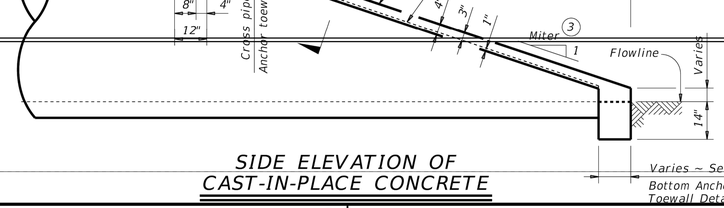
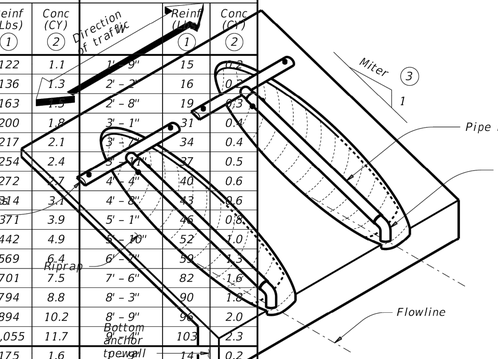


TABLE OF VARIABLE DIMENSIONS AND QUANTITIES FOR ONE HEADWALL

Slope	Dia of Pipe (D)	Values for One Pipe: W	Reinf (Lbs) ①	Conc (CY) ②	Values To Be Added for Each Addt'l Pipe: W	Reinf (Lbs) ①	Conc (CY) ②
2:1	12"	9' – 0"	122	1.1	1' – 9"	15	0.2
	15"	10' – 3"	136	1.3	2' – 2"	16	0.2
	18"	11' – 6"	163	1.5	2' – 8"	19	0.3
	21"	12' – 9"	200	1.8	3' – 1"	31	0.3
	24"	14' – 0"	217	2.1	3' – 7"	34	0.4
	27"	15' – 3"	254	2.4	4' – 1"	37	0.5
	30"	16' – 6"	272	2.7	4' – 4"	40	0.6
	33"	17' – 9"	314	3.1	4' – 8"	43	0.6
	36"	19' – 0"	371	3.9	5' – 1"	46	0.8
	42"	21' – 6"	442	4.9	5' – 10"	52	1.0
	48"	25' – 0"	569	6.4	6' – 7"	61	1.3
	54"	27' – 6"	701	7.5	7' – 6"	82	1.6
	60"	30' – 0"	794	8.8	8' – 3"	90	1.8
	66"	32' – 6"	894	10.2	8' – 9"	98	2.0
	72"	35' – 0"	1,055	11.7	9' – 4"	103	2.3
3:1	12"	13' – 0"	175	1.6	1' – 9"	14	0.2
	15"	14' – 9"	193	1.9	2' – 2"	17	0.2
	18"	16' – 6"	228	2.2	2' – 8"	19	0.3
	21"	18' – 3"	299	2.6	3' – 1"	31	0.3
	24"	20' – 0"	323	3.0	3' – 7"	32	0.4
	27"	21' – 9"	371	3.5	3' – 11"	37	0.5
	30"	23' – 6"	415	4.0	4' – 4"	40	0.5
	33"	25' – 3"	469	4.6	4' – 8"	43	0.6
4:1	36"	27' – 0"	556	5.7	5' – 1"	46	0.8
	42"	30' – 6"	675	7.1	5' – 10"	52	1.0
	48"	35' – 6"	837	9.2	6' – 7"	59	1.3
	54"	39' – 0"	1,015	11.0	7' – 6"	84	1.6
	60"	42' – 6"	1,171	12.9	8' – 3"	91	1.8
	66"	46' – 0"	1,298	14.9	8' – 9"	98	2.0
	72"	49' – 6"	1,561	17.1	9' – 4"	103	2.3
6:1	12"	17' – 0"	229	2.0	1' – 9"	15	0.2
	15"	19' – 3"	266	2.4	2' – 2"	17	0.2
	18"	21' – 6"	308	2.9	2' – 8"	19	0.3
	21"	23' – 9"	382	3.5	3' – 1"	31	0.3
	24"	26' – 0"	430	3.9	3' – 7"	34	0.4
	27"	28' – 3"	486	4.7	3' – 11"	37	0.5
	30"	30' – 6"	539	5.2	4' – 4"	40	0.6
	33"	32' – 9"	603	6.0	4' – 8"	42	0.6
	36"	35' – 0"	738	7.5	5' – 1"	47	0.8
	42"	39' – 6"	881	9.3	5' – 10"	52	1.0
	48"	46' – 0"	1,102	12.1	6' – 7"	61	1.3
	54"	50' – 6"	1,364	14.4	7' – 6"	84	1.6
	60"	55' – 0"	1,547	16.9	8' – 3"	91	1.8
	66"	59' – 6"	1,741	19.5	8' – 9"	98	2.0
	72"	64' – 0"	2,077	22.4	9' – 4"	102	2.3
8:1	12"	25' – 0"	336	3.0	1' – 9"	14	0.2
	15"	28' – 3"	384	3.6	2' – 2"	17	0.2
	18"	31' – 6"	452	4.2	2' – 8"	19	0.3
	21"	34' – 9"	581	5.1	3' – 1"	31	0.4
	24"	38' – 0"	644	5.8	3' – 7"	34	0.4
	27"	41' – 3"	737	6.9	3' – 11"	37	0.5
	30"	44' – 6"	807	7.7	4' – 4"	39	0.6
	33"	47' – 9"	912	8.9	4' – 8"	44	0.6
	36"	51' – 0"	1,108	11.0	5' – 1"	48	0.8
	42"	57' – 6"	1,318	13.7	5' – 10"	54	1.0
	48"	67' – 0"	1,682	17.9	6' – 7"	59	1.3
	54"	73' – 6"	2,072	21.3	7' – 6"	83	1.6
	60"	80' – 0"	2,351	24.9	8' – 3"	89	1.8
	66"	86' – 6"	2,643	28.9	8' – 9"	96	2.0
	72"	93' – 0"	3,121	33.1	9' – 4"	101	2.3

ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing reinforced concrete pipe culvert with no skew.)



ESTIMATED CONCRETE RIPRAP QUANTITIES (CY)

NOTE: Estimated riprap quantities are based on when Cross Pipe Connection Option A1 is used.

Nominal Culvert I.D.	3:1 Side Slope: 0° Skew	15° Skew	30° Skew	45° Skew	4:1 Side Slope: 0° Skew	15° Skew	30° Skew	45° Skew	6:1 Side Slope: 0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8
15"	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9
18"	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	1.0
21"	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.0	1.2
24"	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.1	1.3
27"	0.7	0.8	0.9	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.4
30"	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.6
33"	0.8	0.9	1.0	1.0	1.0	1.1	1.2	1.3	1.3	1.4	1.6	1.7
36"	0.9	0.9	1.1	1.1	1.1	1.2	1.3	1.4	1.4	1.6	1.7	1.8
42"	1.0	1.0	1.3	1.2	1.3	1.4	1.6	1.7	1.7	1.8	2.0	2.1
48"	1.1	1.2	N/A	1.4	1.4	1.6	N/A	1.9	1.9	2.1	N/A	2.4
54"	1.3	N/A	N/A	1.6	1.6	1.8	N/A	2.2	2.2	2.4	N/A	2.7
60"	1.4	N/A	N/A	1.8	1.8	2.0	N/A	2.4	2.4	2.7	N/A	3.0

PIPE RUNNER DETAILS

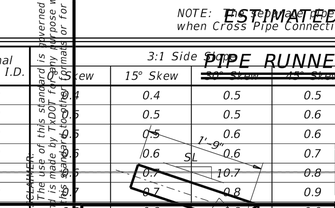


TABLE OF DIMENSIONS AND REINFORCING STEEL

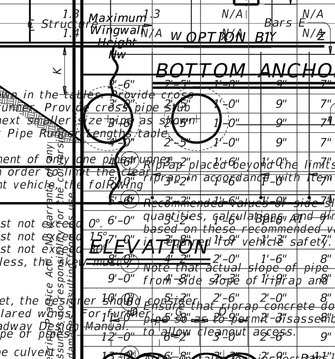
(Wings 1 or one structure end)

Bar	Size	No.	Spa	Bar Mark
A	#5	12"	1'-9"	N/A
B	#5	12"	1'-9"	N/A
C	#4	9"	2'-4"	N/A
D	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
E	#4	2'-9" ~ 4'-0"	1'-0" ~ 4'-0"	N/A
F	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
G	#6	1'-0" ~ 4'-0"	3'-2" ~ 6'-0"	N/A
J1	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
J2	#4	2'-9" ~ 4'-0"	1'-0" ~ 4'-0"	N/A
P	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
R	#5	1'-0" ~ 2'-6"	3'-2" ~ 5'-0"	N/A
V	#4	1'-0" ~ 4'-0"	2'-2" ~ 4'-6"	N/A

Estimated Quantities per Foot of Wing Width (Lw)

Wingwall Height (Hw)	Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	21"	0.248
3'-0"	24"	0.261
3'-6"	30"	0.273
4'-0"	33"	0.285
4'-6"	36"	0.330
5'-0"	39"	0.343
5'-6"	42"	0.355
6'-0"	45"	0.367
6'-6"	48"	0.414
7'-0"	51"	0.486
7'-6"	54"	0.585
8'-0"	57"	0.564
8'-6"	60"	0.684
9'-0"	63"	0.721
9'-6"	66"	0.866
10'-0"	69"	0.959
10'-6"	72"	1.068
11'-0"	75"	1.294

BOTTOM ANCHOR PIPE DETAILS



(1) Provide pipe runner of the size shown in the tables to provide cross pipe of the same size as the pipe runner. Provide cross pipe 5'-0" out and bottom anchor pipe of the next smaller size pipe as shown in the Standard Pipe Sizes and Max Pipe Runner Length table.

(2) This standard allows for the placement of any pipe runner size within the limits shown within the table for concrete across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

For 60" culvert pipes, the skew must not exceed 0°.
For 54" culvert pipes, the skew must not exceed 15°.
For 48" culvert pipes, the skew must not exceed 30°.
For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

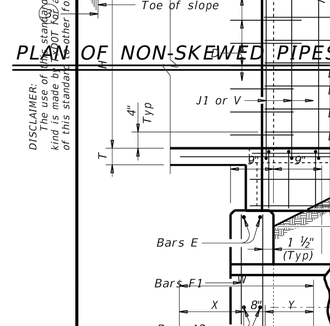
If the above conditions cannot be met, the designer must provide that riprap concrete does not flow into the cross using a safety end treatment with flared wings. For further details on disassembly of the bolted connection information, refer to the TxDOT Roadway Design Manual.

(3) Miter = slope of mitered end of pipe culvert.

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap".

(5) Quantities shown are for one end of one reinforced concrete culvert. For multiple pipe culverts or for corrugated metal pipe culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

ELEVATION



(1) Total quantities include one 3'-1" lap for bars over 60' in length.

(2) Quantities shown are for concrete pipe and will increase slightly for metal pipe installations.

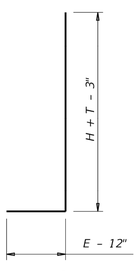
(3) Indicated slope is perpendicular to centerline pipe or pipes.

(4) For vehicle safety, construct curbs no more than 3" above finished grade. Reduce curb heights, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

(5) Dimensions shown are usual and maximum.

(6) Quantities shown are for one structure end only (one headwall).

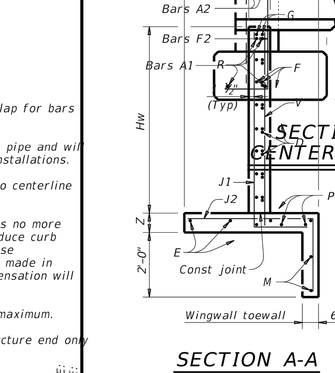
BARS F2



PLAN OF NON-SKEWED PIPES

INSIDE ELEVATION

(Showing reinforcing. Culvert and culvert toewall reinforcing not shown for clarity.)



SECTION AT CENTER OF PIPE

SECTION A-A

CORNER DETAILS

(Culvert and culvert toewall reinforcing not shown for clarity.)

TABLE OF CONSTANT DIMENSIONS AND REINFORCING

Bar	Size	No.	Spa	Bar Mark
A	#5	12"	1'-9"	N/A
B	#5	12"	1'-9"	N/A
C	#4	9"	2'-4"	N/A
D	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
E	#4	2'-9" ~ 4'-0"	1'-0" ~ 4'-0"	N/A
F	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
G	#6	1'-0" ~ 4'-0"	3'-2" ~ 6'-0"	N/A
J1	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
J2	#4	2'-9" ~ 4'-0"	1'-0" ~ 4'-0"	N/A
P	#4	1'-0" ~ 2'-6"	2'-2" ~ 4'-6"	N/A
R	#5	1'-0" ~ 2'-6"	3'-2" ~ 5'-0"	N/A
V	#4	1'-0" ~ 4'-0"	2'-2" ~ 4'-6"	N/A

Estimated Quantities per Foot of Wing Width (Lw)

Wingwall Height (Hw)	Reinf (Lb/Ft)	Conc (CY/Ft)
2'-6"	21"	0.248
3'-0"	24"	0.261
3'-6"	30"	0.273
4'-0"	33"	0.285
4'-6"	36"	0.330
5'-0"	39"	0.343
5'-6"	42"	0.355
6'-0"	45"	0.367
6'-6"	48"	0.414
7'-0"	51"	0.486
7'-6"	54"	0.585
8'-0"	57"	0.564
8'-6"	60"	0.684
9'-0"	63"	0.721
9'-6"	66"	0.866
10'-0"	69"	0.959
10'-6"	72"	1.068
11'-0"	75"	1.294

TABLE OF CULVERT TOEWALL QUANTITIES

Bar	Size	Spa	Reinf (Lb/Ft)	Conc (CY/Ft)
P	#4	1'-0" ~ 2'-6"	0'-9" ~ 2'-0"	0'-9" ~ 2'-0"
R	#5	1'-0" ~ 2'-6"	1'-1" ~ 2'-11"	1'-1" ~ 2'-11"
V	#4	1'-0" ~ 4'-0"	0'-9" ~ 2'-0"	0'-9" ~ 2'-3"

MATERIAL NOTES:

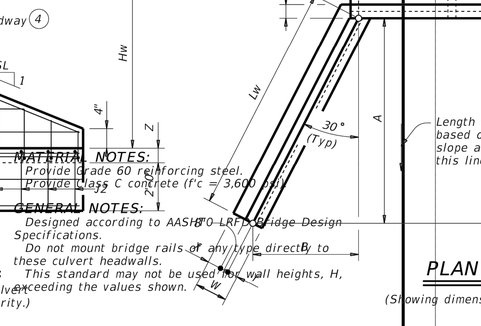
Provide Grade 60 reinforcing steel.
Provide Class C concrete (f'_c = 3,600 psi).

GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications.
Do not mount bridge rails of any type directly to these culvert headwalls.
This standard may not be used for wall heights, H, exceeding the values shown.

PLAN

(Showing dimensions.)



CONCRETE HEADWALLS WITH PARALLEL WINGS FOR NON-SKEWED PIPE CULVERTS

FOOTING AND TOEWALL

Texas Department of Transportation — Bridge Division Standard

setpcse-20.dgn — DN: TxDOT CK: TxDOT DW: TxDOT CK: TxDOT — CONT SECT JOB HIGHWAY — DIST COUNTY SHEET NO.

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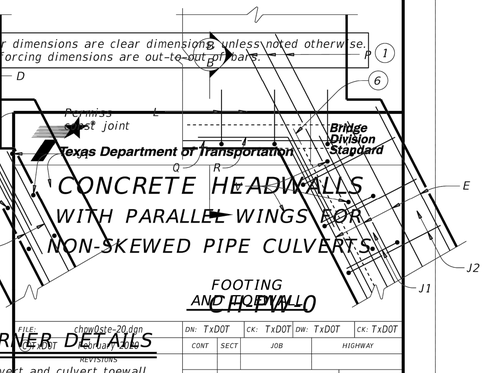
SAFETY END TREATMENT FOR 12 DIA TO 60 DIA GENERAL NOTE TYPE II RIGID DRAINAGE

Pipe runners shall be designed using a live load of 1,800 pounds at yield and all components designed in accordance with Report 230-1, "Safety Treatment of Rigid Cross-Drainage Structures", Texas Transportation Institute, March 1981. Safety end treatments (SET) shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the pipe runners.

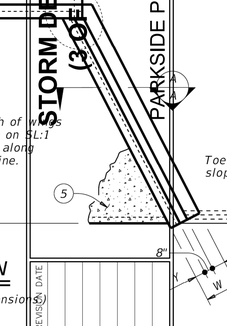
Payment for pipe runners and toewall is included in the price bid for each safety end treatment.

Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap".

SECTION B-B



CULVERT TOEWALL DETAILS



BOTTOM ANCHOR TOEWALL DETAILS

(Culvert and riprap not shown for clarity.)

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

Bar	Size	Spa	Reinf (Lb/Ft)	Conc (CY/Ft)
P	#4	1'-0" ~ 2'-6"	0'-9" ~ 2'-0"	0'-9" ~ 2'-0"
R	#5	1'-0" ~ 2'-6"	1'-1" ~ 2'-11"	1'-1" ~ 2'-11"
V	#4	1'-0" ~ 4'-0"	0'-9" ~ 2'-0"	0'-9" ~ 2'-3"

MATERIAL NOTES:

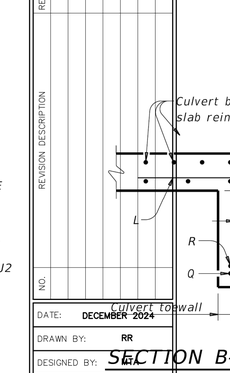
Provide Grade 60 reinforcing steel.
Provide Class C concrete (f'_c = 3,600 psi).
Galvanize all steel components, except epoxy coated reinforcing steel.
Epoxy coat all reinforcing steel.
Reinforcing steel bar laps are based on Class B splices.
Concrete cover dimensions are clear dimensions, unless noted otherwise.

GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications.
Do not mount bridge rails of any type directly to these culvert headwalls.
This standard may not be used for wall heights, H, exceeding the values shown.

PLAN

(Showing dimensions.)



SECTION B-B

CULVERT TOEWALL

SECTION B-B

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 10053600
HMT ENGINEERING & SURVEYING

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MC
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C5.14

STORM DRAIN DETAILS (3 OF 3)

PARKSIDE PHASE 5

DATE: 12/06/2024
FILE:

CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION:

SPRINGS HILLS WATER (WATER)	(830) 379-7683
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

C.P.E. LOCATOR

CALL CENTER POINT ENERGY LOCATOR AT 1-800-545-6005, 48HRS BEFORE BEGINNING ANY EXCAVATION. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CENTER POINT ENERGY 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.

TELEPHONE LOCATOR

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48HRS PRIOR TO EXCAVATION AT 1-800-545-6005,. CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY DURING CONSTRUCTION.

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 AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY 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 EXCAVATIONS.

CONSTRUCTION NOTES:

1. ALL WATER MAINS SHALL BE AWWA C909 (CLASS 150 OR GREATER).
2. WATER SERVICES SHALL BE SINGLE 1" HDPE TUBING.
3. WATER MAIN SHALL HAVE A MINIMUM OF 48 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
4. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
5. INITIAL BACKFILL OF WATER LINES SHALL BE MANUFACTURED SAND OR PEA GRAVEL AS PER SPRING HILLS WATER SUPPLY SYSTEMS CONNECTION & CONSTRUCTION POLICY.
6. SECONDARY BACKFILL OF WATER LINES SHALL GENERALLY CONSIST OF MATERIAL REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS AND TRASH OR STONES HAVING ANY DIMENSION LARGER THAN 6" INCHES AT THE LARGEST DIMENSION.
7. HYDROSTATIC TESTING IS DONE FROM VALVE TO VALVE.
8. NO METER BOXES TO BE SET IN DRIVEWAYS OR SIDEWALKS. ANY METER BOXES SET IN DRIVEWAYS OR SIDEWALKS WILL BE RELOCATED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
9. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
10. METER BOXES MUST BE SET AT THE PROPOSED GRADE. ANY METER BOXES THAT ARE NOT SET AT THE FINAL GRADE WILL BE ADJUSTED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
11. ACCEPTABLE METER BOXES ARE D13-BAMR AND D15-BAMR. NEW RESIDENTIAL LOTS ARE REQUIRED TO USE THE D15-BAMR METER BOXES (DOUBLE AMR). COMMERCIAL LOTS SHOULD CHOOSE WHICH BOX APPLIES TO THE DOMESTIC AND/OR IRRIGATION METER LAYOUT.
12. THRUST BLOCKS WILL NOT BE ALLOWED ON THE SYSTEM WITHOUT SPECIAL APPROVAL. JOINTS WILL BE RESTRAINED WITH RESTRAINING SYSTEMS APPROVED BY SPRING HILLS WATER SUPPLY AND RESTRAINT LENGTH SHALL BE SUBMITTED TO SPRING HILLS WATER SUPPLY AT THE TIME OF PLAN SUBMITTAL.
13. CONTRACTOR SHALL PLACE TRACER WIRE ON TOP OF THE WATER MAINS. TRACER WIRE SHOULD RUN FROM VALVE TO VALVE AND EXIT AT THE VALVE BOX. THE TRACER WIRE SHOULD BE ATTACHED TO THE TOP OF THE PIPE USING TAPE. EXCESS WIRE SHOULD BE LEFT WITHIN VALVE BOXES TO BE PLACED WITHIN LID OF COVER.
14. ALL VALVES, HYDRANTS, AND METERS ARE SHOWN SCHEMATICALLY AND SHALL BE INSTALLED ACCORDING TO THE DETAILS.

SPRINGS HILL WATER SUPPLY CORPORATION NOTES:

1. EXISTING WATER INFRASTRUCTURE IN THE VICINITY OF THE TRACT IS AVAILABLE TO SERVE THE PROPOSED DEVELOPMENT. IF THE DEVELOPMENT EXCEEDS THE CAPACITY OF THE EXISTING WATER INFRASTRUCTURE, THEN IT WILL BE THE DEVELOPER'S RESPONSIBILITY TO MAKE THE NECESSARY IMPROVEMENTS TO THE EXISTING WATER INFRASTRUCTURE TO PROVIDE SUFFICIENT CAPACITY. THE EXTENT OF THE NECESSARY WATER IMPROVEMENTS WILL BE OUTLINED IN A MEMORANDUM OF UNDERSTANDING OR NON-STANDARD SERVICE AGREEMENT PRIOR TO THE APPROVAL OF ANY FINAL PLAT.
2. SHWSC SHALL HAVE ACCESS TO METER LOCATIONS FROM THE FRONT YARD WITH THE LOCATION NOT BEING WITHIN A FENCED AREA.
3. ANY EASEMENT DESIGNATED AS A SHWSC UTILITY EASEMENT SHALL REMAIN OPEN ACCESS AT ALL TIMES AND SHALL NOT BE WITHIN A FENCED AREA.
4. ALL SHWSC EASEMENTS ARE FOR CONSTRUCTION, MAINTENANCE (INCLUDING BUT NOT LIMITED TO REMOVAL OF TREES AND OTHER OBSTRUCTIONS), READING OF METERS, AND REPAIR OF ANY SHWSC FACILITY LOCATED WITHIN SAID EASEMENT.
5. WATER LINE IS TO BE CONSTRUCTED IN ACCORDANCE WITH SPRINGS HILL WATER SUPPLY CORPORATION STANDARD DRAWINGS AND SPECIFICATIONS.
6. WATER MAIN SHALL HAVE A MINIMUM OF 30 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
7. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
8. NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOX SET IN A DRIVEWAY WILL BE RELOCATED AT THE CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
9. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHWSC WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY
10. PERMANENT TIE-INS TO IN-SERVICE MAINS SHALL ONLY BE CONSTRUCTED FOLLOWING FLUSHING, DISINFECTION, TESTING, AND APPROVAL BY SHWSC. TEMPORARY CONNECTIONS FOR FILLING, FLUSHING, AND TESTING MUST BE EQUIPPED WITH SHWSC-PROVIDED BACKFLOW PREVENTION TO MAINTAIN CROSS-CONNECTION CONTROL.
11. A HYDROSTATIC TEST SHALL BE PERFORMED AFTER SERVICES ARE CONNECTED AND FINAL GRADING AND PLACEMENT ARE COMPLETE.

UTILITY TRENCH COMPACTION

ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET PAVEMENT SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEO-TECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF SEGUIN STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 100LF FOR EACH LIFT. UPON COMPLETION OF TESTING THE GEO-TECHNICAL ENGINEER SHALL PROVIDE THE CITY OF SEGUIN STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

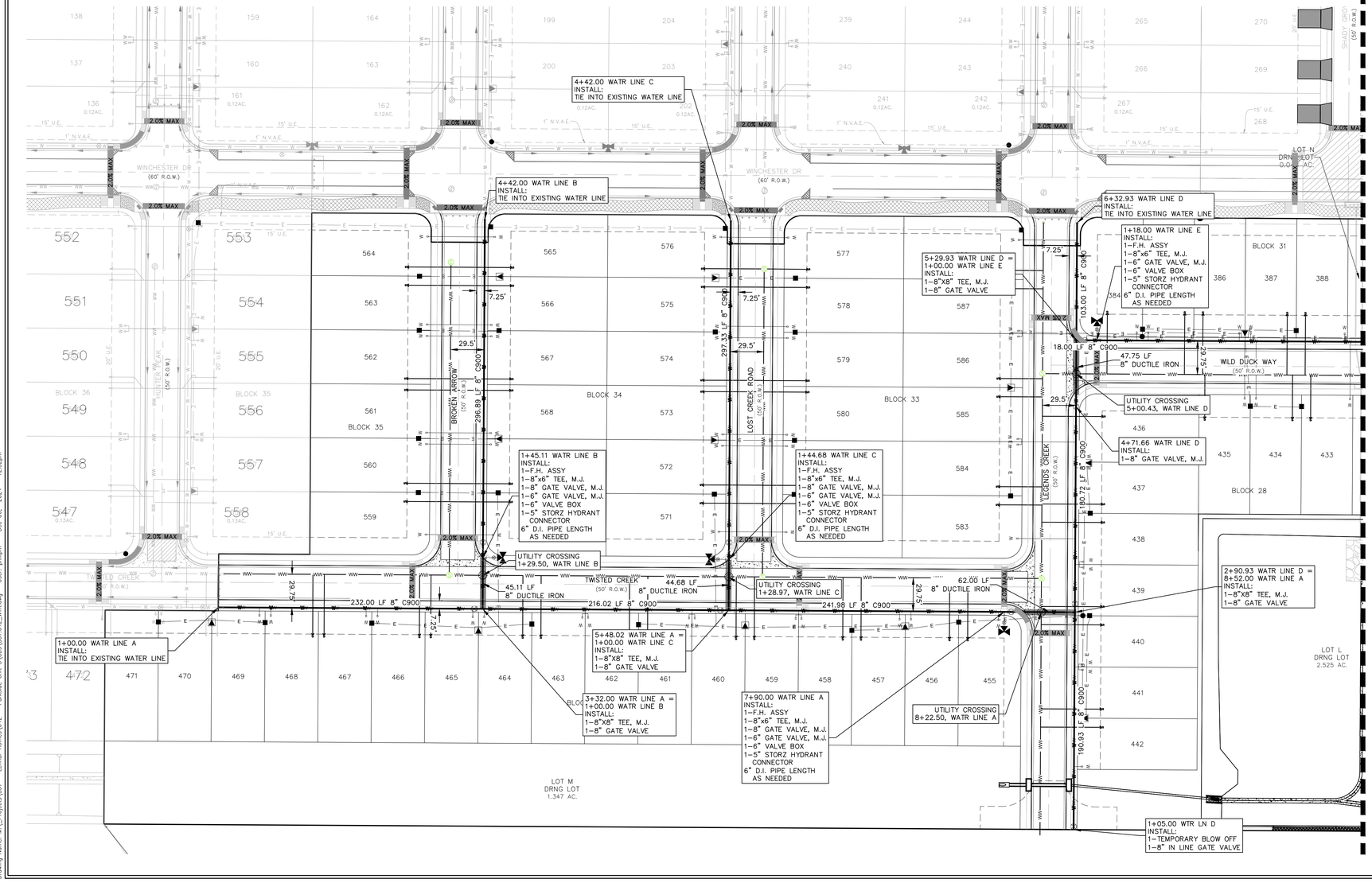
UTILITY NOTES:

1. ALL UTILITIES TO BE CONSTRUCTED PRIOR TO THE STREETS.
2. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
3. POINT OF DELIVERY SHALL BE IN ACCORDANCE WITH SPRING HILLS WATER SUPPLY WATER AND WASTEWATER DESIGN CRITERIA MANUAL.
4. ELECTRIC DESIGN AS SHOWN IN PLANS ARE FOR REFERENCE ONLY, REFER TO APPROVED NBU ELECTRIC DESIGN.

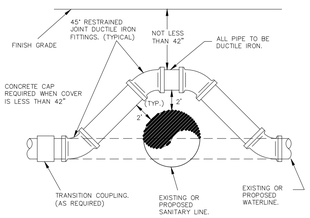
LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W W	EXISTING WATER LINE
	PROPOSED WATER LINE
	PROPOSED WATER SERVICE
	UTILITY CROSSING

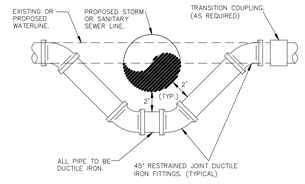
0 25 50 100
HORIZONTAL SCALE: 1:50



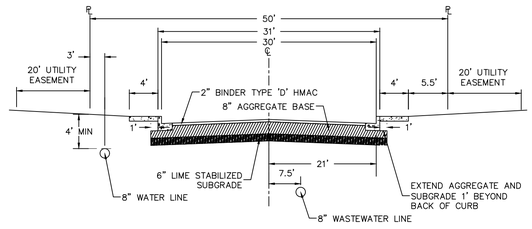
MATCHLINE: SEE SHEET C6.02



WATERLINE ADJUSTMENT DETAIL
N.T.S



WATERLINE ADJUSTMENT DETAIL
N.T.S



REFER TO THE COVER SHEET FOR BENCHMARK INFORMATION.

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

OVERALL WATER (1 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C6.01

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\C0s\337-042_WTR.dwg User: philpom Dec 06, 2024 - 12:32pm

CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION:

SPRINGS HILLS WATER (WATER)	(830) 379-7683
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

C.P.E. LOCATOR

CALL CENTER POINT ENERGY LOCATOR AT 1-800-545-6005, 48HRS BEFORE BEGINNING ANY EXCAVATION. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CENTER POINT ENERGY 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.

TELEPHONE LOCATOR

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48HRS PRIOR TO EXCAVATION AT 1-800-545-6005,, CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY DURING CONSTRUCTION.

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 AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY 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 EXCAVATIONS.

CONSTRUCTION NOTES:

1. ALL WATER MAINS SHALL BE AWWA C909 (CLASS 150 OR GREATER).
2. WATER SERVICES SHALL BE SINGLE 1" HDPE TUBING.
3. WATER MAIN SHALL HAVE A MINIMUM OF 48 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
4. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
5. INITIAL BACKFILL OF WATER LINES SHALL BE MANUFACTURED SAND OR PEA GRAVEL AS PER SPRING HILLS WATER SUPPLY SYSTEMS CONNECTION & CONSTRUCTION POLICY.
6. SECONDARY BACKFILL OF WATER LINES SHALL GENERALLY CONSIST OF MATERIAL REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS AND TRASH OR STONES HAVING ANY DIMENSION LARGER THAN 6" INCHES AT THE LARGEST DIMENSION.
7. HYDROSTATIC TESTING IS DONE FROM VALVE TO VALVE.
8. NO METER BOXES TO BE SET IN DRIVEWAYS OR SIDEWALKS. ANY METER BOXES SET IN DRIVEWAYS OR SIDEWALKS WILL BE RELOCATED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
9. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
10. METER BOXES MUST BE SET AT THE PROPOSED GRADE. ANY METER BOXES THAT ARE NOT SET AT THE FINAL GRADE WILL BE ADJUSTED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
11. ACCEPTABLE METER BOXES ARE D13-BAMR AND D15-BAMR. NEW RESIDENTIAL LOTS ARE REQUIRED TO USE THE D15-BAMR METER BOXES (DOUBLE AMR). COMMERCIAL LOTS SHOULD CHOOSE WHICH BOX APPLIES TO THE DOMESTIC AND/OR IRRIGATION METER LAYOUT.
12. THRUST BLOCKS WILL NOT BE ALLOWED ON THE SYSTEM WITHOUT SPECIAL APPROVAL. JOINTS WILL BE RESTRAINED WITH RESTRAINING SYSTEMS APPROVED BY SPRING HILLS WATER SUPPLY AND RESTRAINT LENGTH SHALL BE SUBMITTED TO SPRING HILLS WATER SUPPLY AT THE TIME OF PLAN SUBMITTAL.
13. CONTRACTOR SHALL PLACE TRACER WIRE ON TOP OF THE WATER MAINS. TRACER WIRE SHOULD RUN FROM VALVE TO VALVE AND EXIT AT THE VALVE BOX. THE TRACER WIRE SHOULD BE ATTACHED TO THE TOP OF THE PIPE USING TAPE. EXCESS WIRE SHOULD BE LEFT WITHIN VALVE BOXES TO BE PLACED WITHIN LID OF COVER.
14. ALL VALVES, HYDRANTS, AND METERS ARE SHOWN SCHEMATICALLY AND SHALL BE INSTALLED ACCORDING TO THE DETAILS.

SPRINGS HILL WATER SUPPLY CORPORATION NOTES:

1. EXISTING WATER INFRASTRUCTURE IN THE VICINITY OF THE TRACT IS AVAILABLE TO SERVE THE PROPOSED DEVELOPMENT. IF THE DEVELOPMENT EXCEEDS THE CAPACITY OF THE EXISTING WATER INFRASTRUCTURE, THEN IT WILL BE THE DEVELOPER'S RESPONSIBILITY TO MAKE THE NECESSARY IMPROVEMENTS TO THE EXISTING WATER INFRASTRUCTURE TO PROVIDE SUFFICIENT CAPACITY. THE EXTENT OF THE NECESSARY WATER IMPROVEMENTS WILL BE OUTLINED IN A MEMORANDUM OF UNDERSTANDING OR NON-STANDARD SERVICE AGREEMENT PRIOR TO THE APPROVAL OF ANY FINAL PLAT.
2. SHWSC SHALL HAVE ACCESS TO METER LOCATIONS FROM THE FRONT YARD WITH THE LOCATION NOT BEING WITHIN A FENCED AREA.
3. ANY EASEMENT DESIGNATED AS A SHWSC UTILITY EASEMENT SHALL REMAIN OPEN ACCESS AT ALL TIMES AND SHALL NOT BE WITHIN A FENCED AREA.
4. ALL SHWSC EASEMENTS ARE FOR CONSTRUCTION, MAINTENANCE (INCLUDING BUT NOT LIMITED TO REMOVAL OF TREES AND OTHER OBSTRUCTIONS), READING OF METERS, AND REPAIR OF ANY SHWSC FACILITY LOCATED WITHIN SAID EASEMENT.
5. WATER LINE IS TO BE CONSTRUCTED IN ACCORDANCE WITH SPRINGS HILL WATER SUPPLY CORPORATION STANDARD DRAWINGS AND SPECIFICATIONS.
6. WATER MAIN SHALL HAVE A MINIMUM OF 30 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
7. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
8. NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOX SET IN A DRIVEWAY WILL BE RELOCATED AT THE CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
9. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHWSC WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY
10. PERMANENT TIE-INS TO IN-SERVICE MAINS SHALL ONLY BE CONSTRUCTED FOLLOWING FLUSHING, DISINFECTION, TESTING, AND APPROVAL BY SHWSC. TEMPORARY CONNECTIONS FOR FILLING, FLUSHING, AND TESTING MUST BE EQUIPPED WITH SHWSC-PROVIDED BACKFLOW PREVENTION TO MAINTAIN CROSS-CONNECTION CONTROL.
11. A HYDROSTATIC TEST SHALL BE PERFORMED AFTER SERVICES ARE CONNECTED AND FINAL GRADING AND PLACEMENT ARE COMPLETE.

UTILITY TRENCH COMPACTION

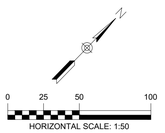
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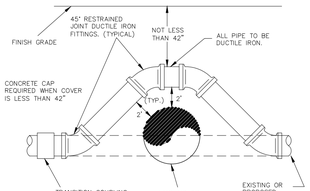
UTILITY NOTES:

1. ALL UTILITIES TO BE CONSTRUCTED PRIOR TO THE STREETS.
2. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
3. POINT OF DELIVERY SHALL BE IN ACCORDANCE WITH SPRING HILLS WATER SUPPLY WATER AND WASTEWATER DESIGN CRITERIA MANUAL.
4. ELECTRIC DESIGN AS SHOWN IN PLANS ARE FOR REFERENCE ONLY, REFER TO APPROVED NBU ELECTRIC DESIGN.

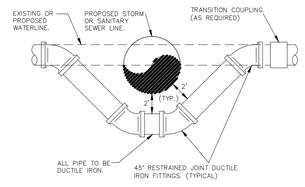
LEGEND

700	EXISTING CONTOURS
700	PROPOSED CONTOURS
B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W W	EXISTING WATER LINE
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	PROPOSED WATER SERVICE
	UTILITY CROSSING

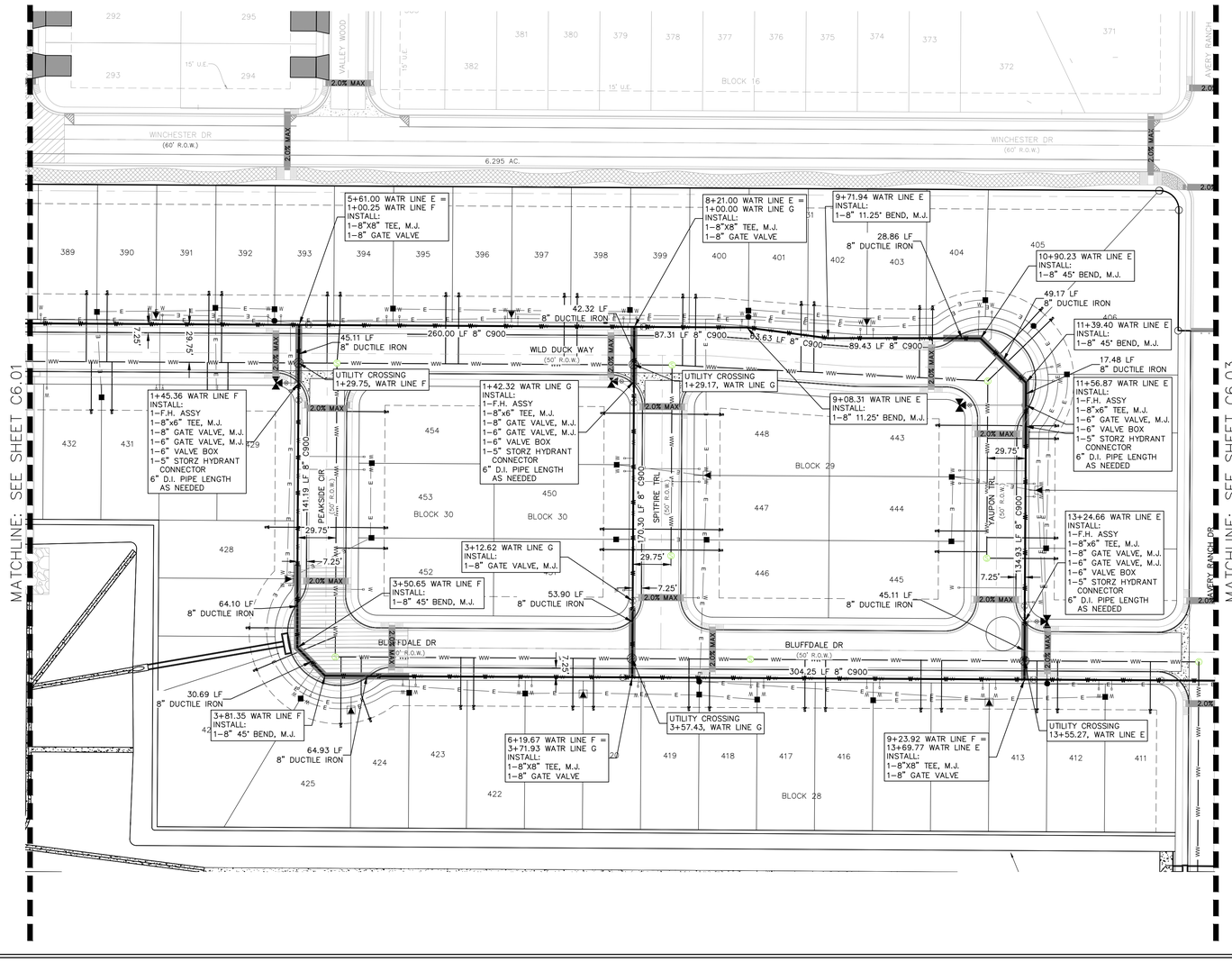




WATERLINE ADJUSTMENT DETAIL
N.T.S



WATERLINE ADJUSTMENT DETAIL
N.T.S



REFER TO THE COVER SHEET FOR BENCHMARK INFORMATION.

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HMT
ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

OVERALL WATER (2 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C6.02

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337-042_WTR.dwg User: philipm Dec 06, 2024 - 12:32pm

CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION:

SPRINGS HILLS WATER (WATER)	(830) 379-7683
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

C.P.E. LOCATOR

CALL CENTER POINT ENERGY LOCATOR AT 1-800-545-6005, 48HRS BEFORE BEGINNING ANY EXCAVATION. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CENTER POINT ENERGY 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.

TELEPHONE LOCATOR

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48HRS PRIOR TO EXCAVATION AT 1-800-545-6005,. CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY DURING CONSTRUCTION.

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 AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY 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 EXCAVATIONS.

CONSTRUCTION NOTES:

1. ALL WATER MAINS SHALL BE AWWA C909 (CLASS 150 OR GREATER).
2. WATER SERVICES SHALL BE SINGLE 1" HDPE TUBING.
3. WATER MAIN SHALL HAVE A MINIMUM OF 48 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
4. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
5. INITIAL BACKFILL OF WATER LINES SHALL BE MANUFACTURED SAND OR PEA GRAVEL AS PER SPRING HILLS WATER SUPPLY SYSTEMS CONNECTION & CONSTRUCTION POLICY.
6. SECONDARY BACKFILL OF WATER LINES SHALL GENERALLY CONSIST OF MATERIAL REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS AND TRASH OR STONES HAVING ANY DIMENSION LARGER THAN 6" INCHES AT THE LARGEST DIMENSION.
7. HYDROSTATIC TESTING IS DONE FROM VALVE TO VALVE.
8. NO METER BOXES TO BE SET IN DRIVEWAYS OR SIDEWALKS. ANY METER BOXES SET IN DRIVEWAYS OR SIDEWALKS WILL BE RELOCATED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
9. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
10. METER BOXES MUST BE SET AT THE PROPOSED GRADE. ANY METER BOXES THAT ARE NOT SET AT THE FINAL GRADE WILL BE ADJUSTED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
11. ACCEPTABLE METER BOXES ARE D13-BAMR AND D15-BAMR. NEW RESIDENTIAL LOTS ARE REQUIRED TO USE THE D15-BAMR METER BOXES (DOUBLE AMR). COMMERCIAL LOTS SHOULD CHOOSE WHICH BOX APPLIES TO THE DOMESTIC AND/OR IRRIGATION METER LAYOUT.
12. THRUST BLOCKS WILL NOT BE ALLOWED ON THE SYSTEM WITHOUT SPECIAL APPROVAL. JOINTS WILL BE RESTRAINED WITH RESTRAINING SYSTEMS APPROVED BY SPRING HILLS WATER SUPPLY AND RESTRAINT LENGTH SHALL BE SUBMITTED TO SPRING HILLS WATER SUPPLY AT THE TIME OF PLAN SUBMITTAL.
13. CONTRACTOR SHALL PLACE TRACER WIRE ON TOP OF THE WATER MAINS. TRACER WIRE SHOULD RUN FROM VALVE TO VALVE AND EXIT AT THE VALVE BOX. THE TRACER WIRE SHOULD BE ATTACHED TO THE TOP OF THE PIPE USING TAPE. EXCESS WIRE SHOULD BE LEFT WITHIN VALVE BOXES TO BE PLACED WITHIN LID OF COVER.
14. ALL VALVES, HYDRANTS, AND METERS ARE SHOWN SCHEMATICALLY AND SHALL BE INSTALLED ACCORDING TO THE DETAILS.

SPRINGS HILL WATER SUPPLY CORPORATION NOTES:

1. EXISTING WATER INFRASTRUCTURE IN THE VICINITY OF THE TRACT IS AVAILABLE TO SERVE THE PROPOSED DEVELOPMENT. IF THE DEVELOPMENT EXCEEDS THE CAPACITY OF THE EXISTING WATER INFRASTRUCTURE, THEN IT WILL BE THE DEVELOPER'S RESPONSIBILITY TO MAKE THE NECESSARY IMPROVEMENTS TO THE EXISTING WATER INFRASTRUCTURE TO PROVIDE SUFFICIENT CAPACITY. THE EXTENT OF THE NECESSARY WATER IMPROVEMENTS WILL BE OUTLINED IN A MEMORANDUM OF UNDERSTANDING OR NON-STANDARD SERVICE AGREEMENT PRIOR TO THE APPROVAL OF ANY FINAL PLAT.
2. SHWSC SHALL HAVE ACCESS TO METER LOCATIONS FROM THE FRONT YARD WITH THE LOCATION NOT BEING WITHIN A FENCED AREA.
3. ANY EASEMENT DESIGNATED AS A SHWSC UTILITY EASEMENT SHALL REMAIN OPEN ACCESS AT ALL TIMES AND SHALL NOT BE WITHIN A FENCED AREA.
4. ALL SHWSC EASEMENTS ARE FOR CONSTRUCTION, MAINTENANCE (INCLUDING BUT NOT LIMITED TO REMOVAL OF TREES AND OTHER OBSTRUCTIONS), READING OF METERS, AND REPAIR OF ANY SHWSC FACILITY LOCATED WITHIN SAID EASEMENT.
5. WATER LINE IS TO BE CONSTRUCTED IN ACCORDANCE WITH SPRINGS HILL WATER SUPPLY CORPORATION STANDARD DRAWINGS AND SPECIFICATIONS.
6. WATER MAIN SHALL HAVE A MINIMUM OF 30 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
7. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
8. NO METER BOXES TO BE SET IN DRIVEWAYS. ANY METER BOX SET IN A DRIVEWAY WILL BE RELOCATED AT THE CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
9. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, DRIVEWAYS, OR ROADWAYS. SHWSC WILL NOT BE RESPONSIBLE FOR ANY DAMAGES TO CONCRETE OR PAVED AREAS IF DEVELOPER DOES NOT COMPLY
10. PERMANENT TIE-INS TO IN-SERVICE MAINS SHALL ONLY BE CONSTRUCTED FOLLOWING FLUSHING, DISINFECTION, TESTING, AND APPROVAL BY SHWSC. TEMPORARY CONNECTIONS FOR FILLING, FLUSHING, AND TESTING MUST BE EQUIPPED WITH SHWSC-PROVIDED BACKFLOW PREVENTION TO MAINTAIN CROSS-CONNECTION CONTROL.
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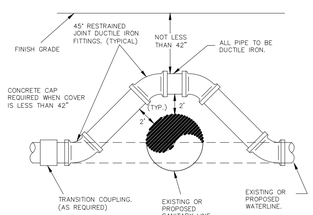
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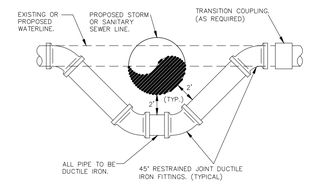
LEGEND

700	EXISTING CONTOURS
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U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
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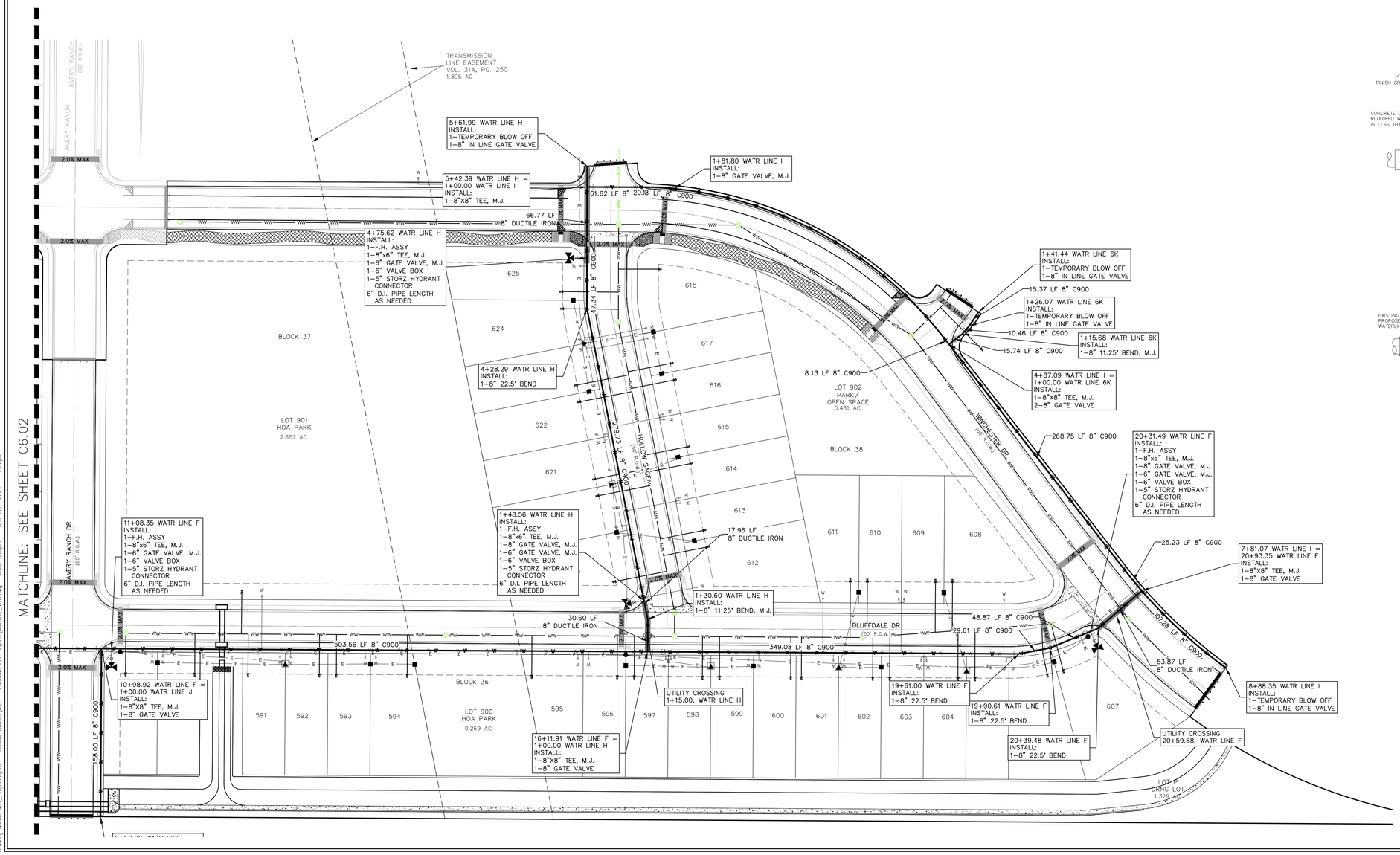
0 25 50 100
HORIZONTAL SCALE: 1:50



WATERLINE ADJUSTMENT DETAIL
N.T.S



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HMT
ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

OVERALL WATER (3 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C6.03

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337.042_WTR.dwg User: philipm Dec 06, 2024 - 12:32pm

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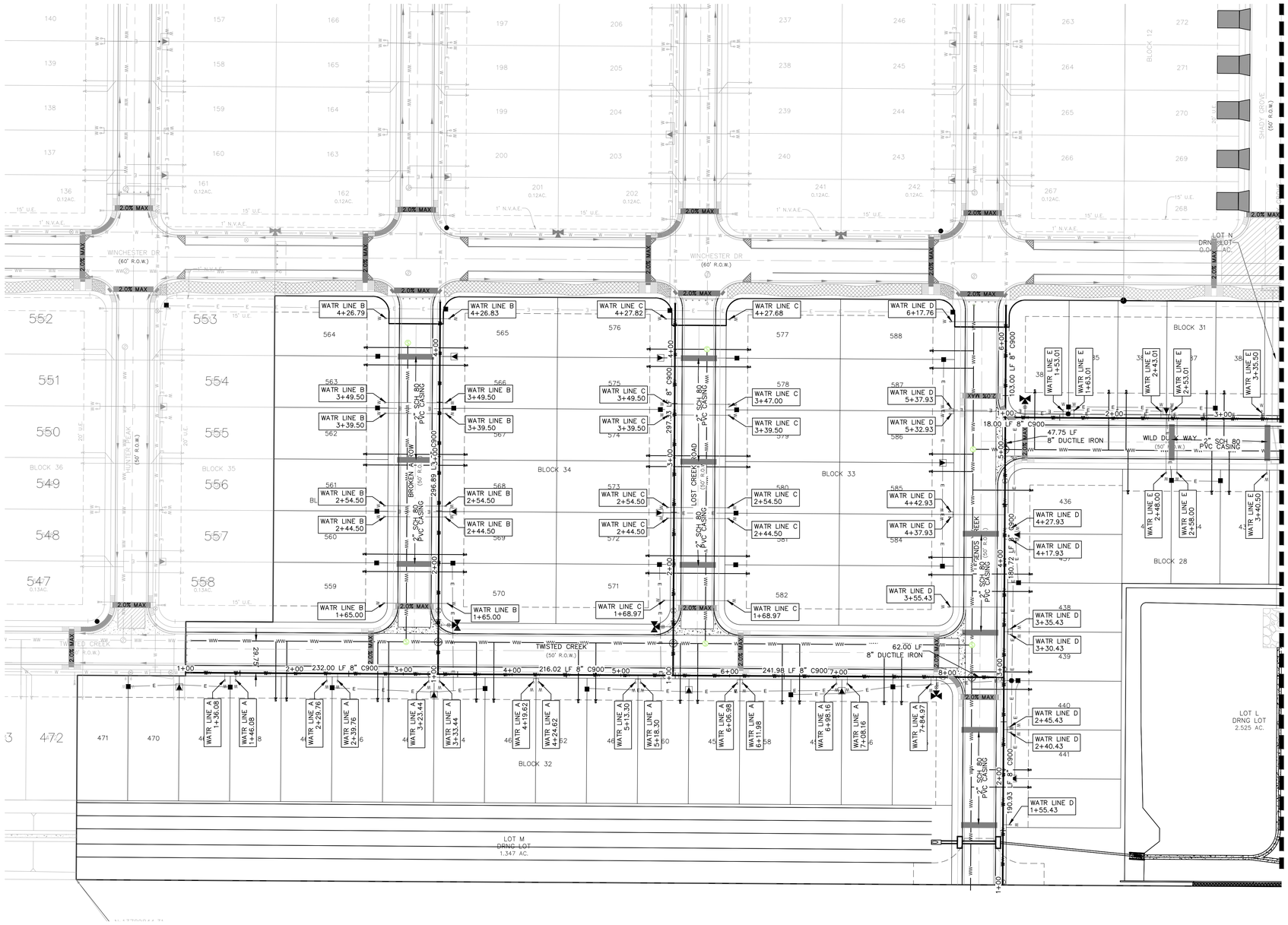
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LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- W — W — EXISTING WATER LINE
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- UTILITY CROSSING

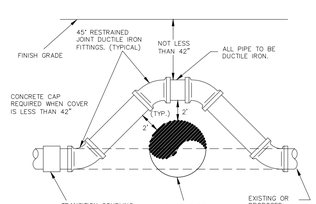


UTILITY TRENCH COMPACTION

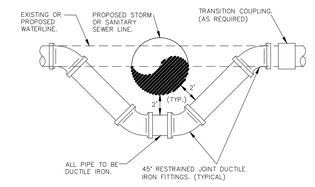
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UTILITY NOTES:

1. ALL UTILITIES TO BE CONSTRUCTED PRIOR TO THE STREETS.
2. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS OR DRIVEWAYS.
3. POINT OF DELIVERY SHALL BE IN ACCORDANCE WITH SPRING HILLS WATER SUPPLY WATER AND WASTEWATER DESIGN CRITERIA MANUAL.
4. ELECTRIC DESIGN AS SHOWN IN PLANS ARE FOR REFERENCE ONLY, REFER TO APPROVED NBU ELECTRIC DESIGN.



WATERLINE ADJUSTMENT DETAIL
N.T.S



WATERLINE ADJUSTMENT DETAIL
N.T.S

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HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

WATER TAP (1 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C6.04

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337042_WTR.dwg User: philipm Dec 06, 2024 - 12:32pm

CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION:

SPRINGS HILLS WATER (WATER)	(830) 379-7683
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

C.P.E. LOCATOR

CALL CENTER POINT ENERGY LOCATOR AT 1-800-545-6005, 48HRS BEFORE BEGINNING ANY EXCAVATION. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CENTER POINT ENERGY 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.

TELEPHONE LOCATOR

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48HRS PRIOR TO EXCAVATION AT 1-800-545-6005, CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY DURING CONSTRUCTION.

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 AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY 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 EXCAVATIONS.

CONSTRUCTION NOTES:

1. ALL WATER MAINS SHALL BE AWWA C909 (CLASS 150 OR GREATER).
2. WATER SERVICES SHALL BE SINGLE 1" HDPE TUBING.
3. WATER MAIN SHALL HAVE A MINIMUM OF 48 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
4. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
5. INITIAL BACKFILL OF WATER LINES SHALL BE MANUFACTURED SAND OR PEA GRAVEL AS PER SPRING HILLS WATER SUPPLY SYSTEMS CONNECTION & CONSTRUCTION POLICY.
6. SECONDARY BACKFILL OF WATER LINES SHALL GENERALLY CONSIST OF MATERIAL REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS AND TRASH OR STONES HAVING ANY DIMENSION LARGER THAN 6" INCHES AT THE LARGEST DIMENSION.
7. HYDROSTATIC TESTING IS DONE FROM VALVE TO VALVE.
8. NO METER BOXES TO BE SET IN DRIVEWAYS OR SIDEWALKS. ANY METER BOXES SET IN DRIVEWAYS OR SIDEWALKS WILL BE RELOCATED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
9. NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
10. METER BOXES MUST BE SET AT THE PROPOSED GRADE. ANY METER BOXES THAT ARE NOT SET AT THE FINAL GRADE WILL BE ADJUSTED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE.
11. ACCEPTABLE METER BOXES ARE D13-BAMR AND D15-BAMR. NEW RESIDENTIAL LOTS ARE REQUIRED TO USE THE D15-BAMR METER BOXES (DOUBLE AMR). COMMERCIAL LOTS SHOULD CHOOSE WHICH BOX APPLIES TO THE DOMESTIC AND/OR IRRIGATION METER LAYOUT.
12. THRUST BLOCKS WILL NOT BE ALLOWED ON THE SYSTEM WITHOUT SPECIAL APPROVAL. JOINTS WILL BE RESTRAINED WITH RESTRAINING SYSTEMS APPROVED BY SPRING HILLS WATER SUPPLY AND RESTRAINT LENGTH SHALL BE SUBMITTED TO SPRING HILLS WATER SUPPLY AT THE TIME OF PLAN SUBMITTAL.
13. CONTRACTOR SHALL PLACE TRACER WIRE ON TOP OF THE WATER MAINS. TRACER WIRE SHOULD RUN FROM VALVE TO VALVE AND EXIT AT THE VALVE BOX. THE TRACER WIRE SHOULD BE ATTACHED TO THE TOP OF THE PIPE USING TAPE. EXCESS WIRE SHOULD BE LEFT WITHIN VALVE BOXES TO BE PLACED WITHIN LID OF COVER.
14. ALL VALVES, HYDRANTS, AND METERS ARE SHOWN SCHEMATICALLY AND SHALL BE INSTALLED ACCORDING TO THE DETAILS.

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2. SHWSC SHALL HAVE ACCESS TO METER LOCATIONS FROM THE FRONT YARD WITH THE LOCATION NOT BEING WITHIN A FENCED AREA.
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5. WATER LINE IS TO BE CONSTRUCTED IN ACCORDANCE WITH SPRINGS HILL WATER SUPPLY CORPORATION STANDARD DRAWINGS AND SPECIFICATIONS.
6. WATER MAIN SHALL HAVE A MINIMUM OF 30 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
7. CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
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UTILITY NOTES:

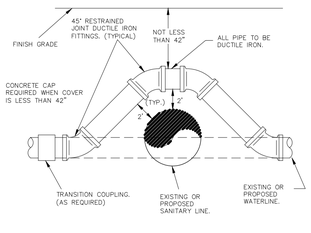
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LEGEND

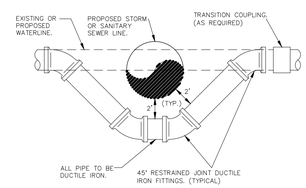
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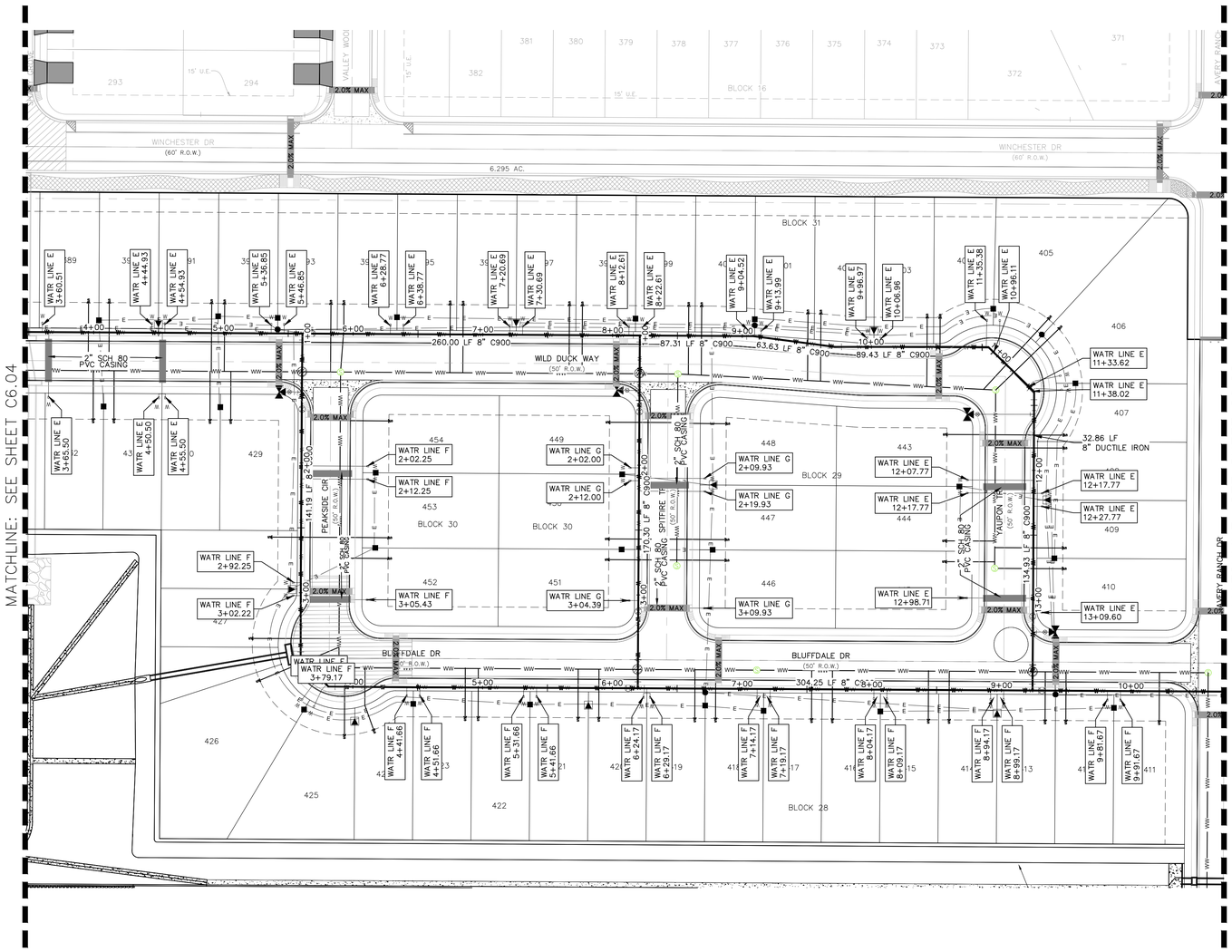
HORIZONTAL SCALE: 1:50



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N.T.S



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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WATER TAP (2 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C6.05

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337042_WTR.dwg User: philipm Dec 06, 2024 - 12:32pm

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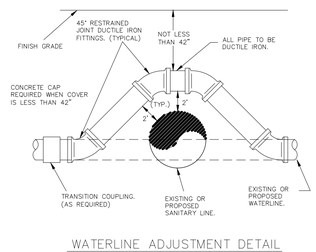
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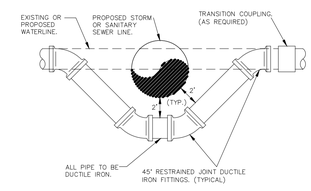
LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- W — W — EXISTING WATER LINE
- PROPOSED WATER LINE
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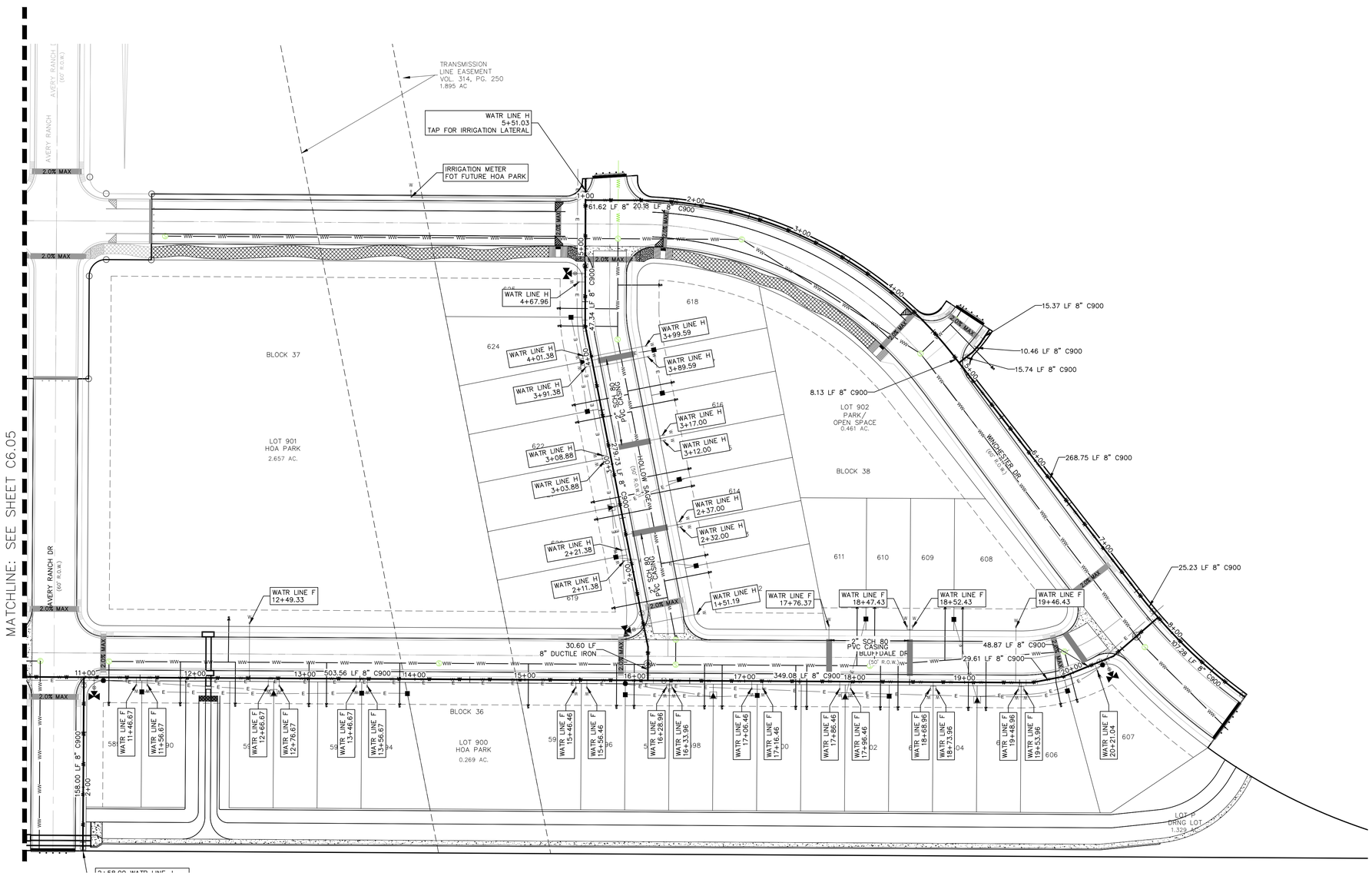
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HORIZONTAL SCALE: 1:50



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THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

HMT ENGINEERING & SURVEYING
290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

WATER TAP (3 OF 3)

PARKSIDE PHASE 5

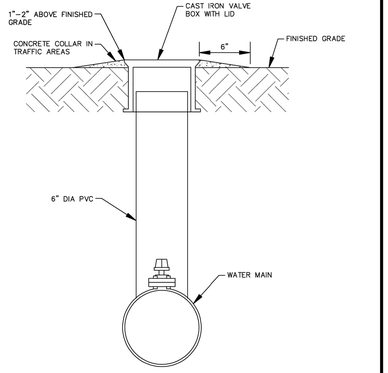
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

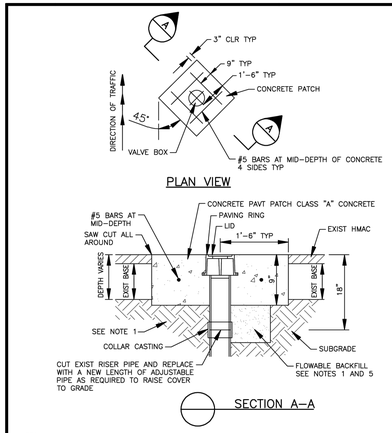
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Date: Sep 21, 2021, 7:09am User ID: gahary
File: S:\Standards\03 Details\07 Utility Districts\SPRINGS HILL WATER\PE WATER SERVICE CASING-001.dwg



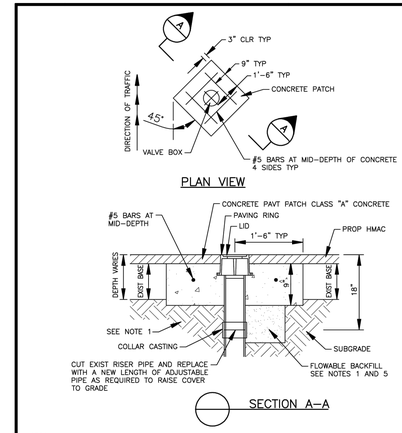
SPRINGS HILL WATER SUPPLY CORPORATION	STANDARD VALVE BOX INSTALLATION		
	DATE: 11/24/2009	REVISIONS:	STANDARD NO. WA–27



NOTES:

1. SUBGRADE SHALL BE COMPACTED AS PER SPECIFICATIONS, SUBGRADE PREPARATION.
2. VALVE CASTINGS SHALL BE ADJUSTED TO GRADE AFTER FINAL LIFT OF OVERLAY IS IN PLACE.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE BASE OF THE VALVE.
4. REMOVE EXISTING RISER PIPE DOWN 18" AND REPLACE TO THE NEW ELEVATION USING NEW ADJUSTABLE PIPE AND A CASTING.
5. WHERE CAST IRON CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL TO THE UNDERSIDE OF THE CONCRETE PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
6. REINFORCING STEEL SHALL MEET SPECIFICATIONS FOR REINFORCING STEEL.

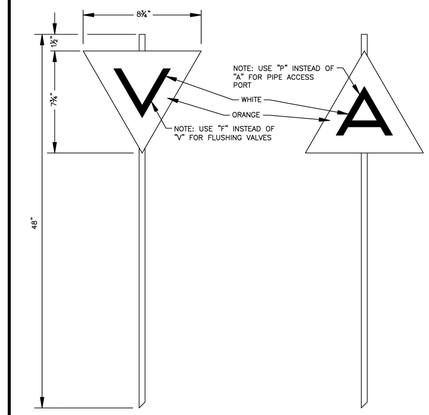
SPRINGS HILL WATER SUPPLY CORPORATION	VALVE BOX TO GRADE WITH FULL DEPTH CONCRETE		
	DATE: 08/12/2010	REVISIONS:	STANDARD NO. WA–28



NOTES:

1. SUBGRADE SHALL BE COMPACTED AS PER SPECIFICATIONS, SUBGRADE PREPARATION.
2. VALVE CASTINGS SHALL BE ADJUSTED TO GRADE AFTER FINAL LIFT OF OVERLAY IS IN PLACE.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE BASE OF THE VALVE.
4. REMOVE EXISTING RISER PIPE DOWN 18" AND REPLACE TO THE NEW ELEVATION USING NEW ADJUSTABLE PIPE AND A CASTING.
5. WHERE CAST IRON CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL TO THE UNDERSIDE OF THE CONCRETE PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
6. REINFORCING STEEL SHALL MEET SPECIFICATIONS FOR REINFORCING STEEL.

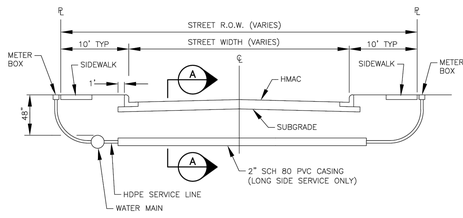
SPRINGS HILL WATER SUPPLY CORPORATION	VALVE BOX TO GRADE WITH CONCRETE AND HOT MIX ASPHALT CONCRETE		
	DATE: 08/12/2010	REVISIONS:	STANDARD NO. WA–29

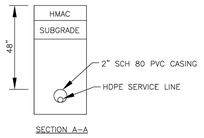


NOTE:

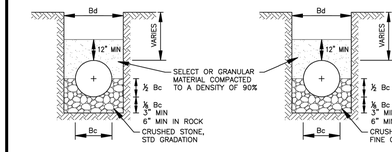
1. PLACE VALVE, AIR RELEASE VALVES AND ACCESS PORT MARKERS AT THE LOCATIONS OF EACH ITEM.

SPRINGS HILL WATER SUPPLY CORPORATION	WATER LINE MARKER		
	DATE: 07/26/2010	REVISIONS:	STANDARD NO. WA–34



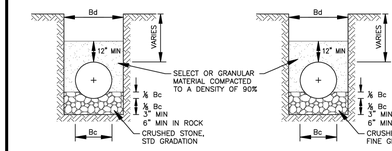


SPRINGS HILL WATER SUPPLY CORPORATION	P.E. WATER SERVICE CASING		
	DATE: 07/26/2010	REVISIONS: 08/20/2021	STANDARD NO. WA–35



CLASS "B"
BEDDING ANGLE 150°, LF 1.9, E'=700

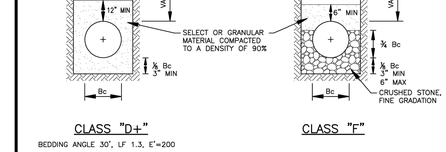
CLASS "B+"
BEDDING ANGLE 150°, LF 1.9, E'=700



CLASS "C"
BEDDING ANGLE 75°, LF 1.5, E'=300

CLASS "C"
BEDDING ANGLE 75°, LF 1.5, E'=300

SPRINGS HILL WATER SUPPLY CORPORATION	EMBEDMENT SHT 1 OF 3		
	DATE: 08/12/2010	REVISIONS:	STANDARD NO. WA–41



CLASS "D+"
BEDDING ANGLE 30°, LF 1.3, E'=200

CLASS "F"

EMBEDMENT FOR WATER LINES						
TYPE OF PIPE	IN EARTH			IN ROCK		
	0'–8'	8'–16'	>16'	0'–8'	8'–16'	>16'
18" AND SMALLER DUCTILE IRON WATER LINE	D+	C	C	D+	C	B
18" AND LARGER DUCTILE IRON WATER LINE	D+	B	B	D+	B	B
ALL PVC WATER LINE	C+	B+	B+	C+	B+	B+
24" & 30" RCCP	D+	B	B	D+	B	B

NOTES:

1. PIPE EMBEDMENT SHALL CONFORM TO DETAILS SHOWN HEREIN.
2. SECONDARY BACKFILL SHALL EXTEND FROM ABOVE THE EMBEDMENT TO BELOW THE PAVEMENT REPAIR SECTION WITHIN PAVEMENT AREA AND TO BELOW THE TOPSOIL SECTION OUTSIDE PAVEMENT AREAS.
3. SECONDARY BACKFILL SHALL CONSIST OF SELECT MATERIAL INCLUDING GRAVEL, FINE ROCK CUTTINGS, SAND, SANDY LOAM, OR LOAM FREE FROM EXCESSIVE CLAY. ROCK CUTTINGS SHALL HAVE NO DIMENSION GREATER THAN TWO INCHES. TRENCH CUTTINGS MAY BE UTILIZED AS SELECT MATERIAL PROVIDED THE CONDITIONS OF THIS PARAGRAPH ARE MET.
4. SECONDARY BACKFILL SHALL BE MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR DENSITY WITHIN PAVEMENT AREAS AND TO 90% STANDARD PROCTOR DENSITY OUTSIDE PAVEMENT AREAS.

SPRINGS HILL WATER SUPPLY CORPORATION	EMBEDMENT SHT 2 OF 3		
	DATE: 08/12/2010	REVISIONS:	STANDARD NO. WA–41

EMBEDMENT DIMENSIONS			
PIPE DIAMETER (INCHES)	KIND OF PIPE	EXTERNAL DIAMETER Bc (INCHES)	TRENCH WIDTH Bd (INCHES)
6	PVC WATER	6.90	24
6	DI WATER	6.90	24
8	PVC WATER	9.05	25
8	DI WATER	9.05	25
8	PVC	8.40	25
12	PVC WATER	13.20	29
12	DI WATER	13.20	29
12	PVC	12.40	29
16	DI WATER	17.40	33
16	PVC WATER	17.40	33
18	DI WATER	19.50	36
18	PVC WATER	19.50	36
20	DI WATER	21.60	38
20	PVC WATER	21.60	38
24	PVC WATER	25.80	42
24	DI WATER	25.80	42
24	RCCP WATER	30.00	48
30	PVC WATER	32.00	48
30	DI WATER	32.00	48
30	RCCP WATER	32.00	48

NOTES:

1. RCCP = REINFORCED CONCRETE CYLINDER PIPE.
2. EMBEDMENT DIMENSION FOR HDPE PIPE SHALL BE IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.

SPRINGS HILL WATER SUPPLY CORPORATION	EMBEDMENT SHT 3 OF 3		
	DATE: 08/12/2010	REVISIONS:	STANDARD NO. WA–41

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600
HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WATER DETAILS (1 OF 3)

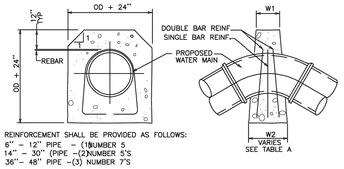
PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

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Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337.042_WATER DETAILS.dwg User: philpm Dec 06, 2024 - 12:33pm



REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS:
6" – 12" PIPE – (1)NUMBER 5
14" – 30" (PIPE –(2)NUMBER 5'S
36"– 48" PIPE –(3) NUMBER 7'S

VERTICAL DOWN BEND

TABLE A
UPWARD THRUST GRAVITY BLOCKS

PIPE DIA.	MIN. TOP WIDTH W1	ANGLE (degrees)	BOTTOM WIDTH= W2 (in)
6"	6"	0–5	NOTE 2
		5–15	24
		15–25	48
		⇐ 25	NOTE 1
8"	6"	0–5	NOTE 2
		5–9	30
		9–15	36
		⇐ 15	NOTE 1
12"	6"	0–5	NOTE 2
		5–15	48
		⇐ 15	NOTE 1
16"	12"	0–5	NOTE 2
		5–10	60
		10–15	96
		⇐ 15	NOTE 1
24" THRU 36"		⇐ 5.0	NOTE 1
42" THRU 48"		⇐ 3.0	NOTE 1

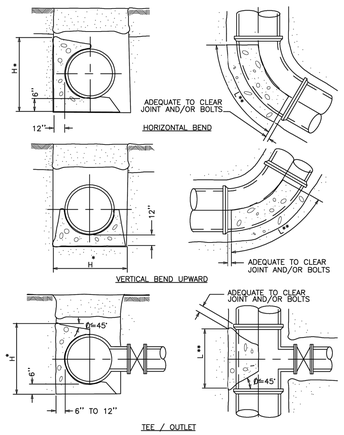
NOTES:
1. FOR ANGLES GREATER THAN THOSE INDICATED RESTRAINT JOINTS SHALL BE INSTALLED
2. FOR JOINT DEFLECTIONS LESS THAN 5 DEGREES, NO HORIZONTAL OR VERTICAL THRUST RESTRAINT IS REQUIRED FOR PIPES LESS THAN 42" IN DIAMETER.

THRUST BLOCK DESIGN AS FOLLOWS
A. PRESSURE OF 150 P.S.I. (ACTUAL IF HIGHER) + 50 % SURGE ALLOWANCE
B. MAXIMUM SOIL BEARING SEE TABLE BELOW

SOIL TYPES	PRESSURE
LOOSE OR SPONGY SOIL	1500 Lb/Sq.Ft.
UNDISTURBED SOIL, CALICHE	2000 Lb/Sq.Ft.
LIMESTONE ROCK	4000 Lb/Sq.Ft.

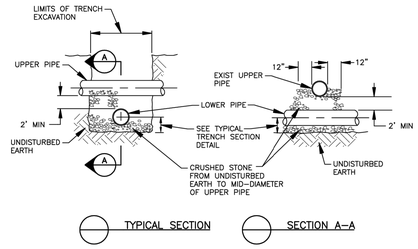
NOTES:
1. THE EARTH BEARING SURFACE SHALL BE UNDISTURBED MATERIAL. IF NOT POSSIBLE, THE FILL BETWEEN THE BEARING SURFACE AND THE UNDISTURBED SOIL MUST BE COMPACTED TO TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ADEQUATE THRUST BLOCKING. THE CONTRACTOR SHALL MAKE THE DETERMINATION IN THE FIELD AS TO TYPE OF SOIL AND USE THE "THRUST BLOCKING DESIGN" TO ADJUST THE AMOUNTS OF THRUST BLOCKING REQUIRED AT EACH PLACE OF USE.
3. ALL FITTINGS SHALL BE BLOCKED REGARDLESS OF THE ANGLE OF DIRECTION.
4. ALL JOINTS WITHIN 30' OF BEND MUST BE RESTRAINED.

SPRINGS HILL WATER SUPPLY CORPORATION	THRUST BLOCK DETAILS SHT 1 OF 2		
	DATE: 03/03/2010	REVISIONS:	STANDARD NO. WA–6



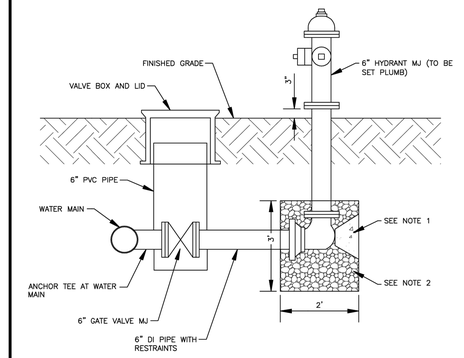
* THE DIMENSION FOR "H" MUST BE GREATER THAN DIAMETER OF THE PIPE
** LENGTH "L" ALONG THE BEND MUST BE GREATER THAN "H" AND LESS THAN 2 TIMES "H"

SPRINGS HILL WATER SUPPLY CORPORATION	THRUST BLOCK DETAILS SHT 2 OF 2		
	DATE: 03/03/2010	REVISIONS:	STANDARD NO. WA–6



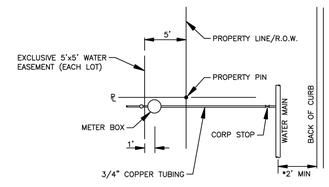
NOTES:
1. T.C.E.Q. RULES AND REGULATIONS ON SANITARY SEWER, STORM SEWER AND WATER MAIN CROSSINGS AND SEPARATIONS SHALL BE STRICTLY ENFORCED, 30 TAC CHAPTER 290, SUBCHAPTER D.
2. ALL OTHER UTILITIES TO MAINTAIN 5 FOOT SEPARATION FROM WATER MAINS AND SERVICES, GAS, ELECTRIC, CABLE (ETC.) TO BE LOCATED OPPOSITE SIDES OF PROPERTY.
3. UTILITY CROSSINGS SEPARATED BY LESS THAN 12 INCHES, PIPES SHALL BE ENCASED WITH 6 INCHES OF CONCRETE ALL AROUND AND CENTERED TO CROSSING FOR A MINIMUM LENGTH OF 20 FEET TOTAL.
4. SPECIFICATIONS, BEDDING MATERIAL MUST BE APPROVED BY AUTHORIZED S.H.W.S.C. PERSONNEL, BEFORE START OF JOB.
5. AT ANY CREEK CROSSING THE MAIN SHALL BE STEEL ENCASED AND/OR 6" CONCRETE ENCASEMENT TO WITHIN 10 FEET OUTSIDE OF CREEK OR DRAINAGE DITCH AREA.

SPRINGS HILL WATER SUPPLY CORPORATION	UTILITY CROSSING		
	DATE: 06/15/2010	REVISIONS:	STANDARD NO. WA–7



NOTES:
1. CONCRETE THRUST BLOCKING WITH A MINIMUM 1½ SQ FT BEARING AREA. CONCRETE TO BE CLASS A, 3,000 PSI.
2. A MINIMUM OF 2 CUBIC FEET OF 1" TO 2" CLEAN, CRUSHED GRAVEL OR STONE SHALL BE PLACED AROUND THE BOTTOM OF THE HYDRANT FOR A RADIUS OF AT LEAST 10" AND EXTEND 10" ABOVE THE OUTLET. DO NOT BLOCK DRAIN HOLES.

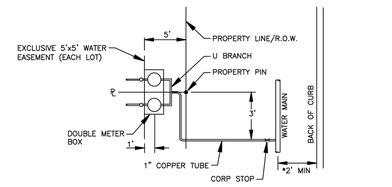
SPRINGS HILL WATER SUPPLY CORPORATION	STANDARD FIRE HYDRANT INSTALLATION		
	DATE: 11/24/2009	REVISIONS:	STANDARD NO. WA–21



*THIS DIMENSION MAY BE INCREASED BY WIDTH OF SIDEWALK, IF SIDEWALK IS LOCATED AT CURB.

NOTES:
1. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY S.H.W.S.C. CONSTRUCTION INSPECTION PERSONNEL.
2. CUSTOMER ALSO INSTALLS WATER LINES INCLUDING FITTINGS AND VALVES ON BOTH SIDES OF METER. INSTALL METER BOXES AND COVERS. ALL IN ACCORDANCE WITH INFORMATION ON APPLICABLE STANDARD DRAWING. A VENTED SPACER MAY BE USED TO ASSURE PROPER SPACING AND ALIGNMENT OF METER FITTINGS.
3. CUSTOMER IS RESPONSIBLE FOR METER BOX AND PIPING SYSTEM UNTIL METER IS INSTALLED AND WATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO S.H.W.S.C. SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIAL. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT ALL VALVES AND STOPS, METER BOX AND REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.
4. S.H.W.S.C. ACTIVITY IS LIMITED TO INSTALLATION OF THE WATER METER AND INSPECTION OF CONNECTIONS TO S.H.W.S.C. WATER SYSTEMS. FOR MAINTENANCE PURPOSES, S.H.W.S.C. RESPONSIBILITY ENDS AT THE CUSTOMER'S WATER CUT–OFF VALVE..
5. NO METER BOX SHALL BE SET IN SIDEWALK OR DRIVEWAY AREA WITHOUT WRITTEN APPROVAL FROM S.H.W.S.C.
6. PIPING AND TUBING IN STREET RIGHT–OF–WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIAL AS REQUIRED IN THE SPECIFICATIONS. SERVICE LINES SHALL HAVE A MINIMUM COVER BELOW FINAL GRADE OF 42–INCHES.

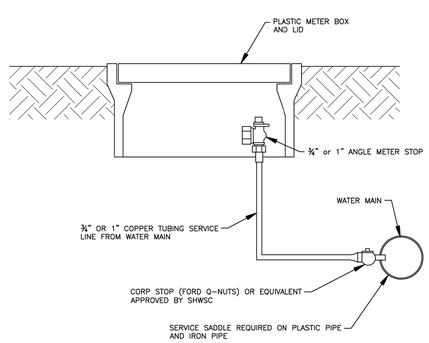
SPRINGS HILL WATER SUPPLY CORPORATION	SINGLE WATER SERVICE CONNECTION		
	DATE: 06/16/2010	REVISIONS:	STANDARD NO. WA–22



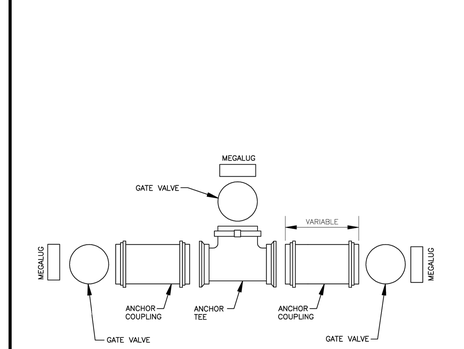
*THIS DIMENSION MAY BE INCREASED BY WIDTH OF SIDEWALK, IF SIDEWALK IS LOCATED AT CURB.

NOTES:
1. INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY SHWSC CONSTRUCTION INSPECTION PERSONNEL..
2. CUSTOMER ALSO INSTALLS WATER LINES INCLUDING FITTINGS AND VALVES ON BOTH SIDES OF METER. INSTALL METER BOXES AND COVERS. ALL IN ACCORDANCE WITH INFORMATION ON APPLICABLE STANDARD DRAWING. A VENTED SPACER MAY BE USED TO ASSURE PROPER SPACING AND ALIGNMENT OF METER FITTINGS.
3. CUSTOMER IS RESPONSIBLE FOR METER BOX AND PIPING SYSTEM UNTIL METER IS INSTALLED AND WATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO SHWSC SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIAL. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT ALL VALVES AND STOPS, METER BOX AND REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.
4. SHWSC ACTIVITY IS LIMITED TO INSTALLATION OF THE WATER METER AND INSPECTION OF CONNECTIONS TO S.H.W.S.C. WATER SYSTEMS. FOR MAINTENANCE PURPOSES, SHWSC RESPONSIBILITY ENDS AT THE CUSTOMER'S WATER CUT–OFF VALVE.
5. NO METER BOX SHALL BE SET IN SIDEWALK OR DRIVEWAY AREA WITHOUT WRITTEN APPROVAL FROM SHWSC
6. PIPING AND TUBING IN STREET RIGHT–OF–WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIAL AS REQUIRED IN THE SPECIFICATIONS. SERVICE LINES SHALL HAVE A MINIMUM COVER BELOW FINAL GRADE OF 42 INCHES.

SPRINGS HILL WATER SUPPLY CORPORATION	DOUBLE WATER SERVICE CONNECTION		
	DATE: 07/23/2010	REVISIONS:	STANDARD NO. WA–23



SPRINGS HILL WATER SUPPLY CORPORATION	3/4" AND 1" SERVICE INSTALLATION		
	DATE: 11/24/2009	REVISIONS:	STANDARD NO. WA–24



SPRINGS HILL WATER SUPPLY CORPORATION	STANDARD VALVE BANK INSTALLATION		
	DATE: 11/24/2009	REVISIONS:	STANDARD NO. WA–26

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600
HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

WATER DETAILS (2 OF 3)

PARKSIDE PHASE 5

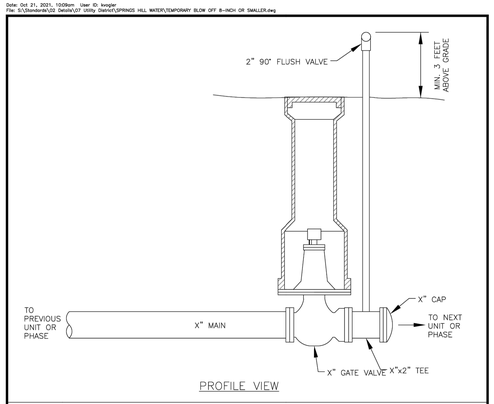
NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

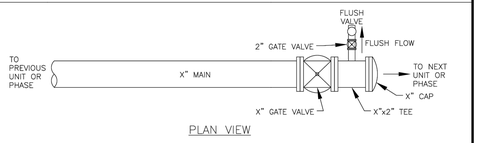
SHEET
C6.08

Drawing Name: M:_Projects\337 – Lennar Homes\042 – Parkside Unit 5\Cbk\337.042_WATER DETAILS.dwg User: phillipm Dec 06, 2024 – 12:33pm

Date: Oct 21, 2021, 10:09am User ID: knogler
File: S:\Standards\03 Details\07 Utility Details\SPRINGS HILL WATER\TEMPORARY BLOW OFF 8-INCH OR SMALLER.dwg



PROFILE VIEW



PLAN VIEW

NOTE:
1. BURIED PIPING, FITTINGS, AND FITTINGS JOINTS SHALL BE WRAPPED IN POLYWRAP.
2. THE EARTHBEARING SURFACE SHALL BE THE UNDISTURBED TRENCH WALL.
3. ALL PIPE JOINTS SHALL BE KEPT FREE FROM CONCRETE.
4. POLYWRAP SHALL BE SECURED WITH A MINIMUM OF THREE CIRCUMFERENTIAL TURNS OF POLY TAPE.

NOT TO SCALE

SPRINGS HILL WATER SUPPLY CORPORATION	TEMPORARY BLOW OFF 8-INCH OR SMALLER		
	DATE: 08/20/2021	REVISIONS:	STANDARD NO. WA-35

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WATER DETAILS (3 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C6.09

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\CDs\337.042_WATER DETAILS.dwg User: philipm Dec 06, 2024 - 12:33pm

CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION:

SPRINGS HILL WATER SUPPLY	(830) 379-7683
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

C.P.E. LOCATOR

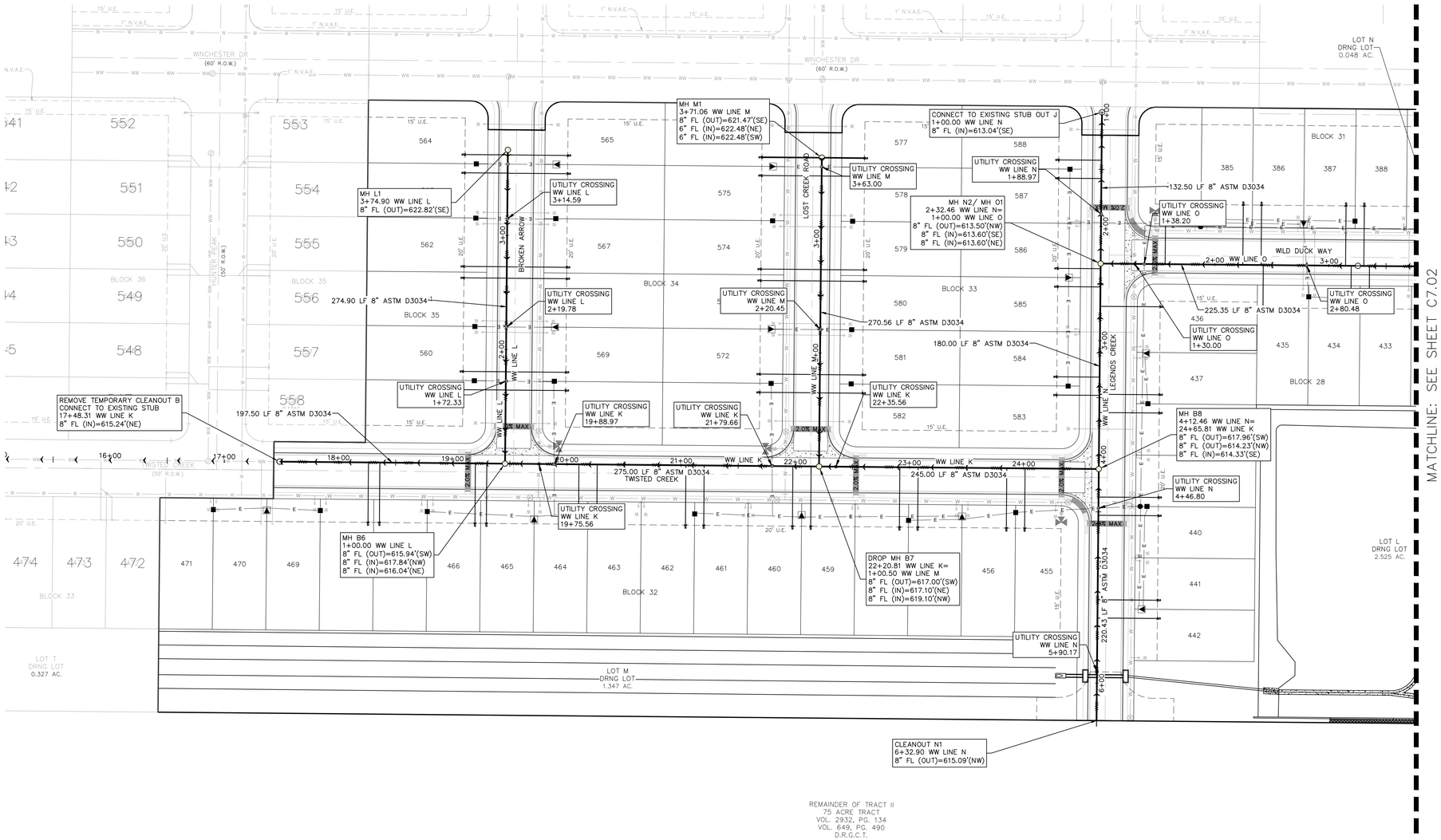
CALL CENTER POINT ENERGY LOCATOR AT 1-800-545-6005, 48HRS BEFORE BEGINNING ANY EXCAVATION. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CENTER POINT ENERGY MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

TELEPHONE LOCATOR

THE EXISTENCE AND LOCATION OF UNDERGROUND CABLE INDICATED ON THE PLANS ARE TAKEN FROM THE BEST RECORDS AVAILABLE AND ARE NOT GUARANTEED TO BE ACCURATE. CONTRACTOR TO CONTACT THE TELEPHONE COMPANY CABLE LOCATOR 48HRS PRIOR TO EXCAVATION AT 1-800-545-6005,, CONTRACTOR HAS THE RESPONSIBILITY TO PROTECT AND SUPPORT TELEPHONE COMPANY DURING CONSTRUCTION.

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 AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY 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 EXCAVATIONS.



LEGEND

700	EXISTING CONTOURS
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B.L.	BUILDING SETBACK LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
WW	EXISTING WASTEWATER LINE
	PROPOSED WASTEWATER MANHOLE
	PROPOSED WASTEWATER LINE
	PROPOSED WASTEWATER SERVICE
	UTILITY CROSSING

UTILITY NOTES:

1. ALL UTILITIES TO BE CONSTRUCTED PRIOR TO THE STREETS.
2. NO VALVES, HYDRANTS, CLEANOUTS, ECT. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALK OR DRIVEWAYS.

UTILITY NOTES:

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5. AT WATER CROSSINGS INCLUDING FIRE HYDRANT LEADS, WHITE COLOR GASKETED ASTM D2241 SDR 26 PIPE AND FITTINGS SHALL BE USED FOR MAINS AND LATERALS.
6. REFER TO ALL GBRA NOTES ON SHEET C0.1.
7. ELECTRIC DESIGN AS SHOWN IN PLANS ARE FOR REFERENCE ONLY, REFER TO APPROVED NBU ELECTRIC DESIGN.

UTILITY TRENCH COMPACTION

ALL UTILITY TRENCH COMPACTION TESTS WITHIN THE STREET PAVEMENT SECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER'S GEO-TECHNICAL ENGINEER. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. EACH LAYER OF MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY AND TESTED FOR DENSITY AND MOISTURE IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 100LF FOR EACH LIFT. UPON COMPLETION OF TESTING THE GEO-TECHNICAL ENGINEER SHALL PROVIDE THE CITY OF NEW BRAUNFELS STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

DEEP TRENCH COMPACTION TESTING

CITY REQUIREMENTS FOR TESTING SHALL BE ADHERED TO, IN CASES WHERE TRENCH DEPTHS DO NOT ALLOW TECHNICIANS ACCESS, METHODS FOR TESTING SHALL BE PROPOSED AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.

THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN 5-FEET IN DEPTH LOCATED IN PUBLIC RIGHT-OF-WAY OR EASEMENTS. DEEP TRENCHES POSE COMPACTION TESTING AND CONSTRUCTION CHALLENGES AND CITY METHODS FOR TESTING AND COMPACTION MAY NOT BE ACHIEVABLE.

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LICENSED
PROFESSIONAL ENGINEER

12/06/2024

OVERALL WASTEWATER (1 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C7.01

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\Cds\337.042_WWTR.dwg User: philipm Dec 06, 2024 - 12:34pm

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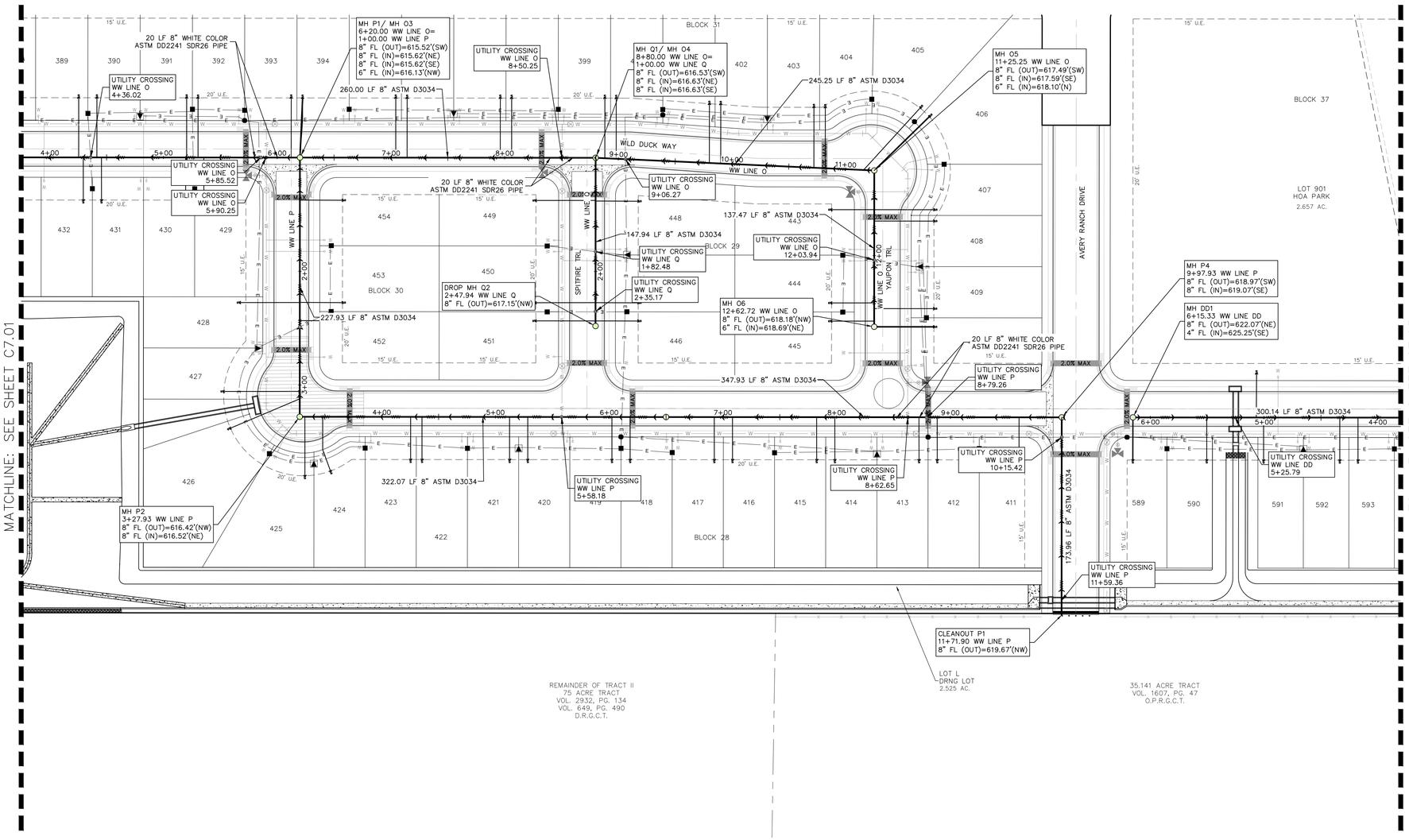
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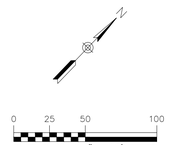
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- D.E. DRAINAGE EASEMENT
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HMT
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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
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LICENSED
PROFESSIONAL ENGINEER

12/06/2024

OVERALL WASTEWATER (2 OF 3)

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C7.02

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\C0s\337.042_WWTR.dwg User: philipm Dec 06, 2024 - 12:34pm

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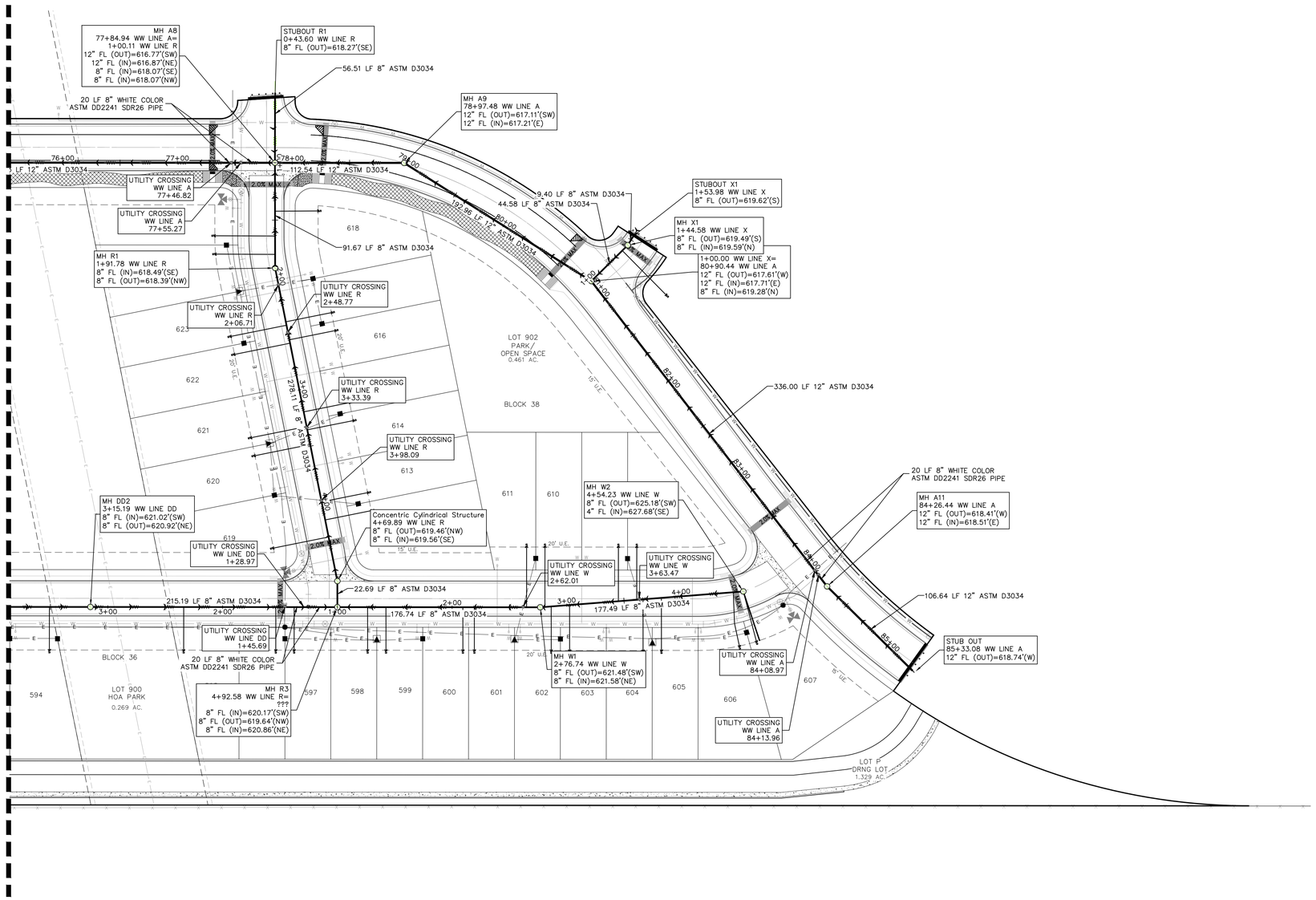
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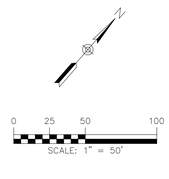
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CHRISTOPHER P. VAN HEERDE
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12/06/2024

OVERALL WASTEWATER (3 OF 3)

PARKSIDE PHASE 5

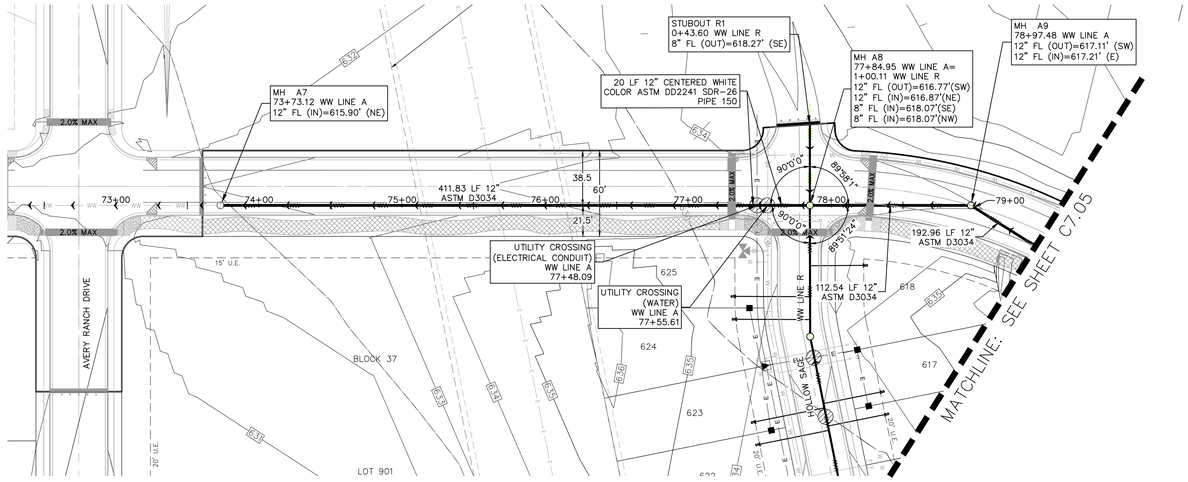
NO.	REVISION DESCRIPTION	REVISION DATE

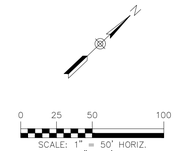
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C7.03

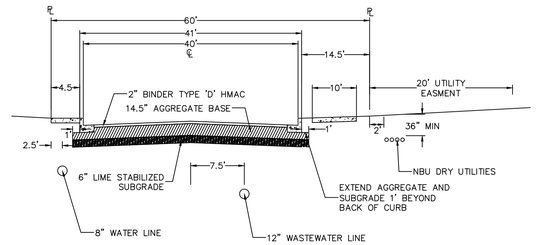
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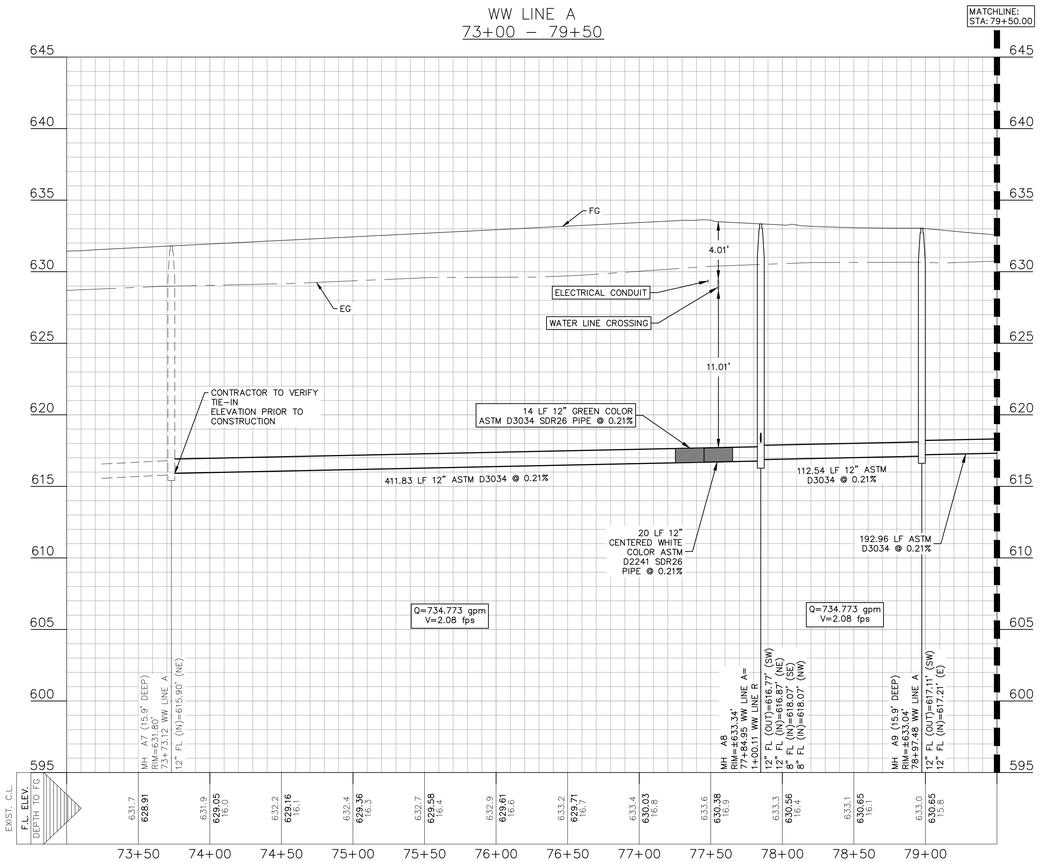




LEGEND

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- PROPOSED WASTEWATER LINE
- PROPOSED WASTEWATER SERVICE
- UTILITY CROSSING
- PROPOSED ELECTRICAL CONDUIT
- KVA TRANSFORMER
- PROPOSED STREET LIGHT, SOLAR (TO BE DESIGNED BY OTHERS)
- SECONDARY ENCLOSURE





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AT&T	(830) 303-1333
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TBPE FIRM F-10961
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HMT ENGINEERING & SURVEYING

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CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

WASTEWATER LINE A PLAN & PROFILE (1 OF 2)

PARKSIDE PHASE 5

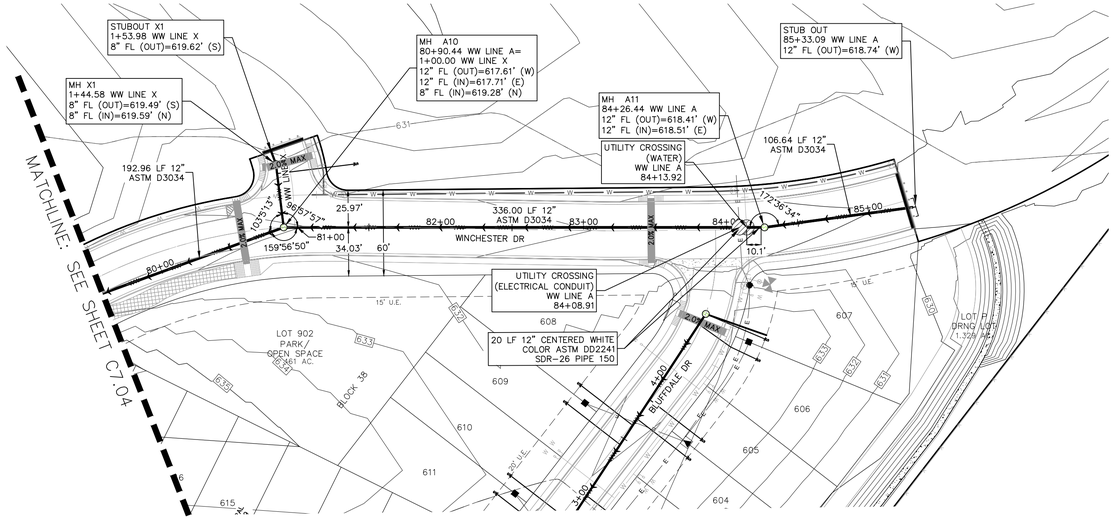
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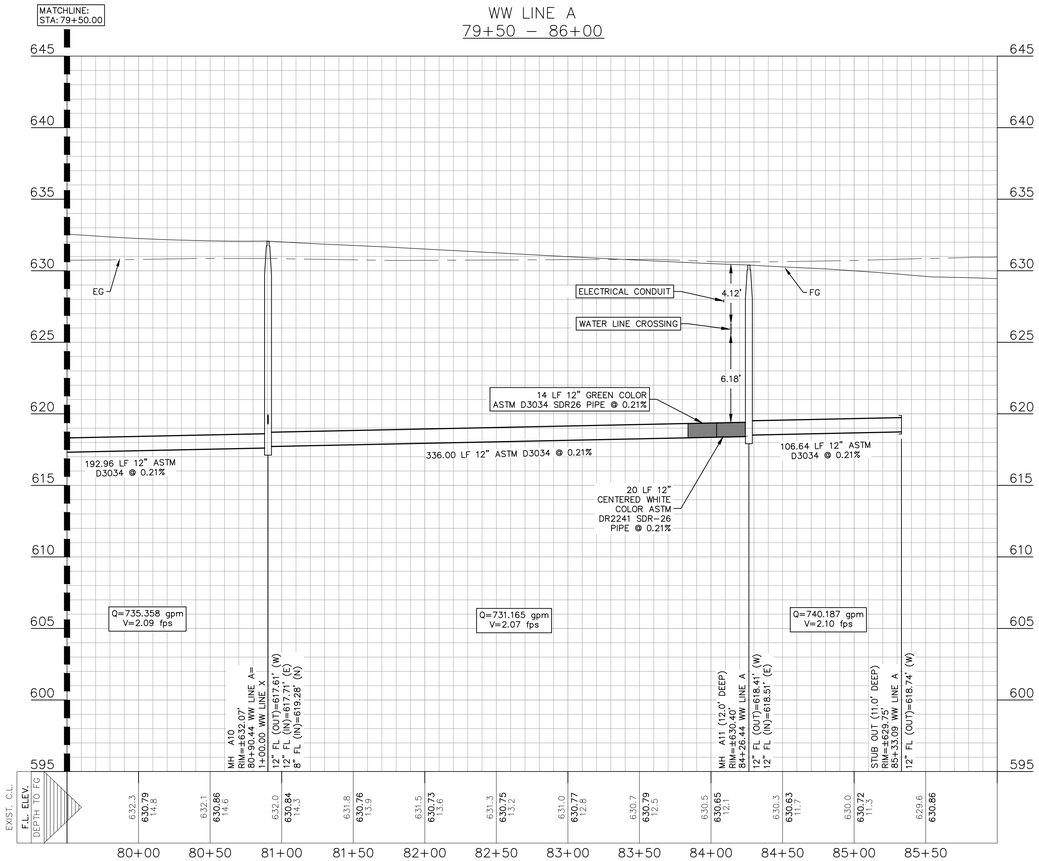
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DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

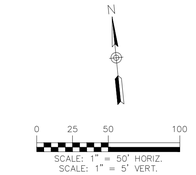
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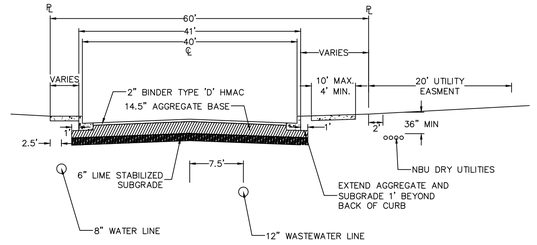






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12/06/2024

WASTEWATER LINE A PLAN & PROFILE (2 OF 2)

PARKSIDE PHASE 5

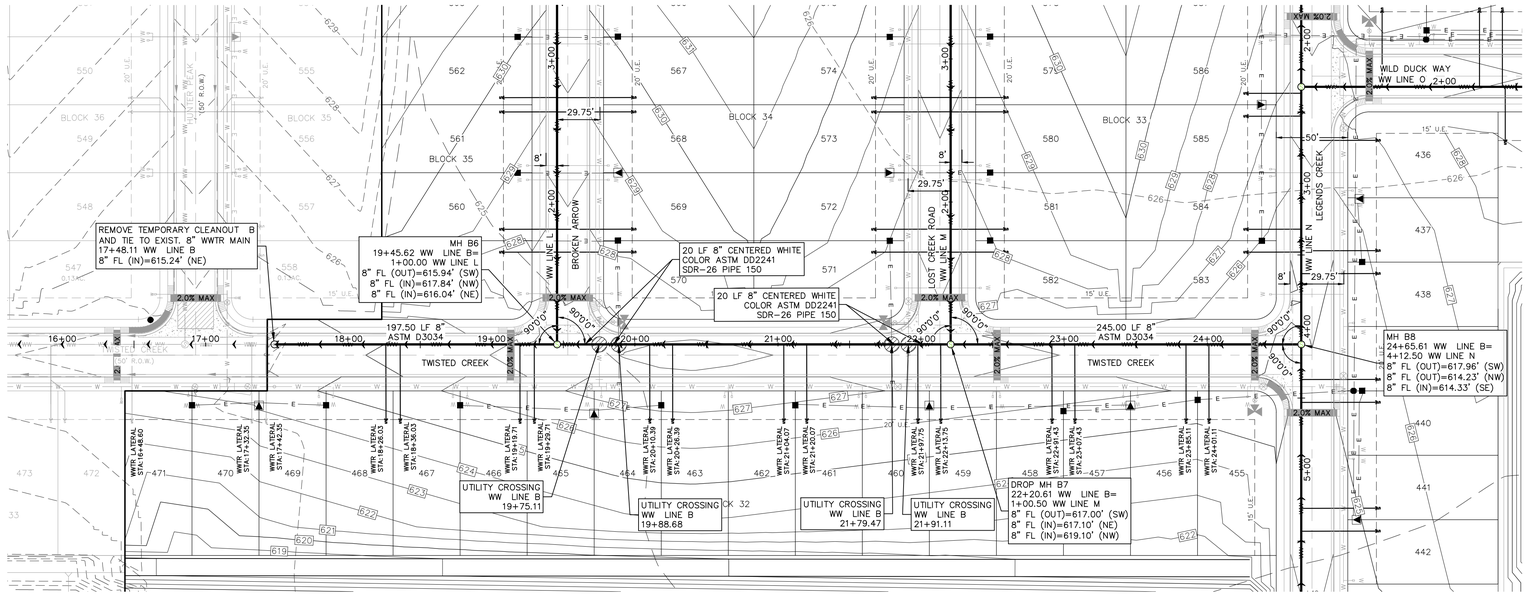
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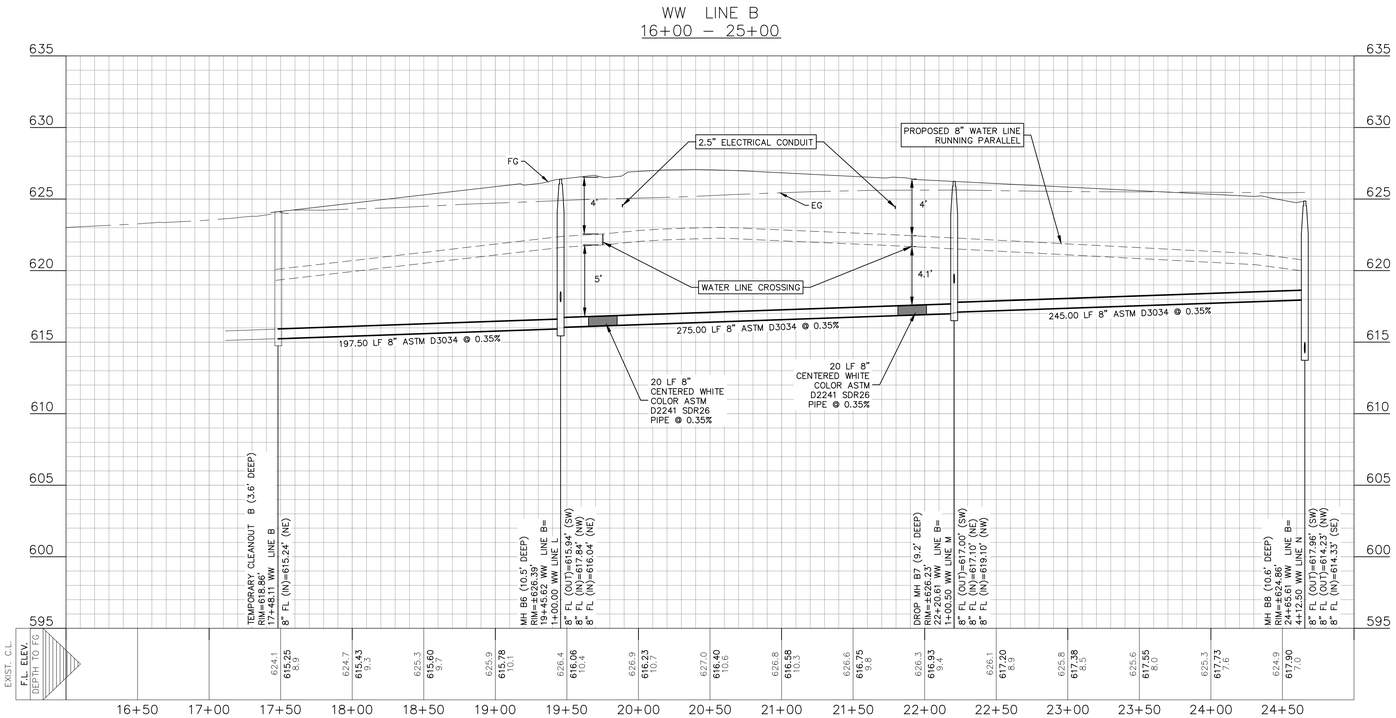
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

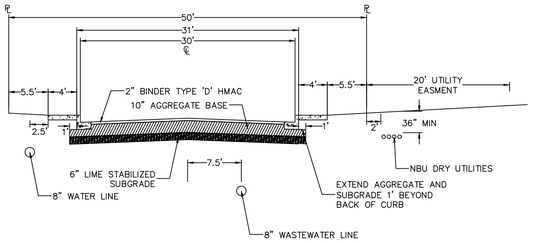
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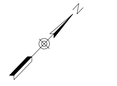
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Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337.042_WATER LINE A P&P.dwg User: philipm Dec 06, 2024 - 12:36pm









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WASTEWATER LINE B PLAN & PROFILE

PARKSIDE PHASE 5

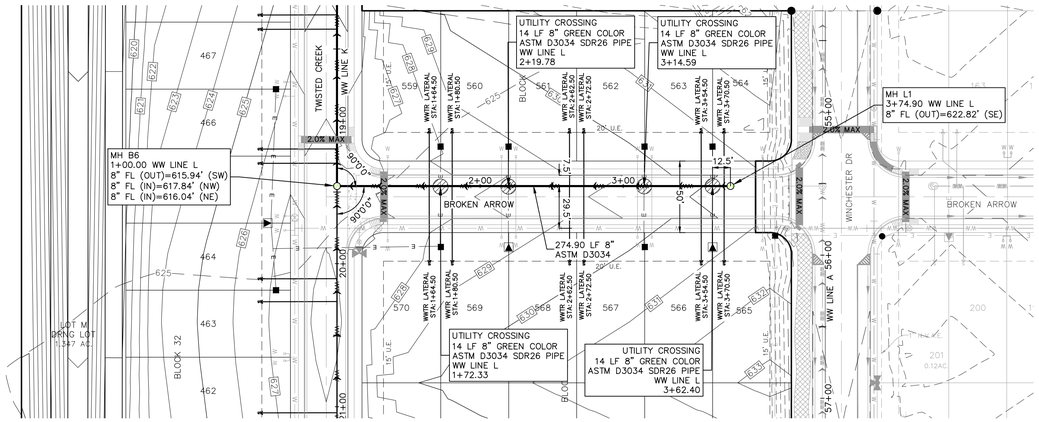
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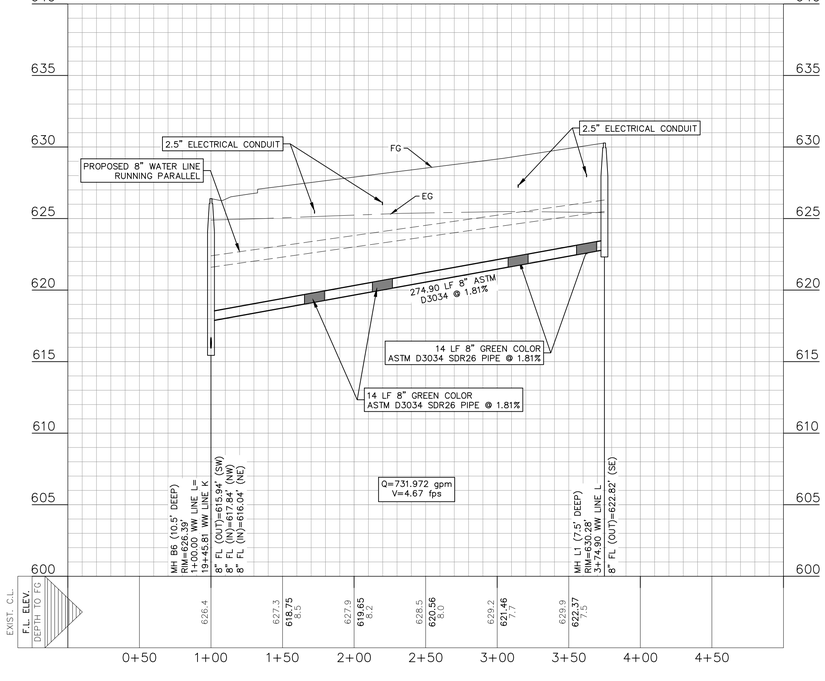
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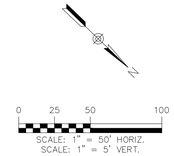
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C7.06

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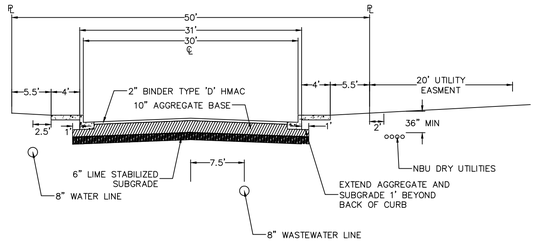






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TBPE FIRM F-10961
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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WASTEWATER LINE L PLAN & PROFILE

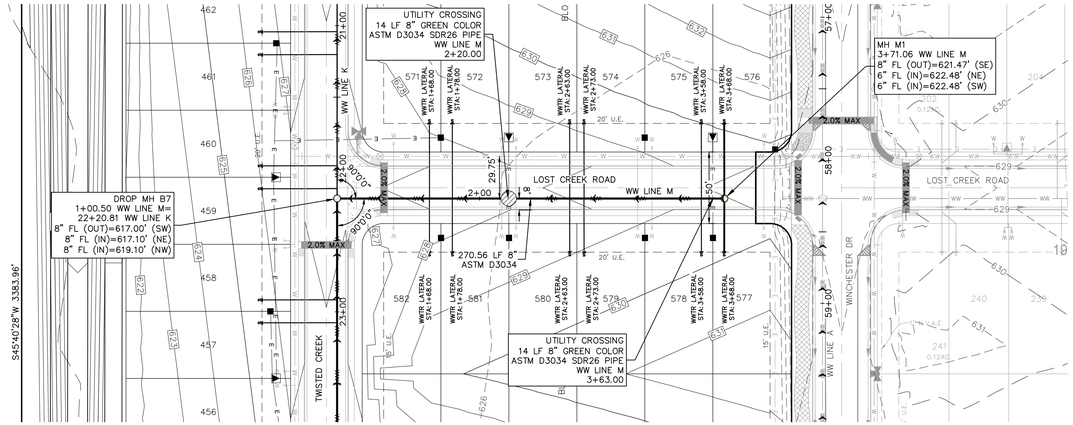
PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C7.07

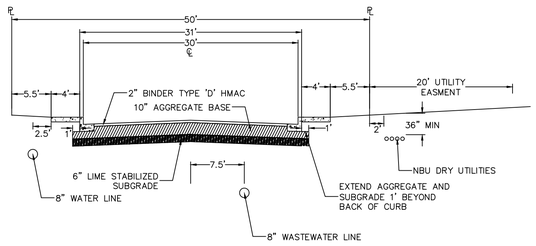
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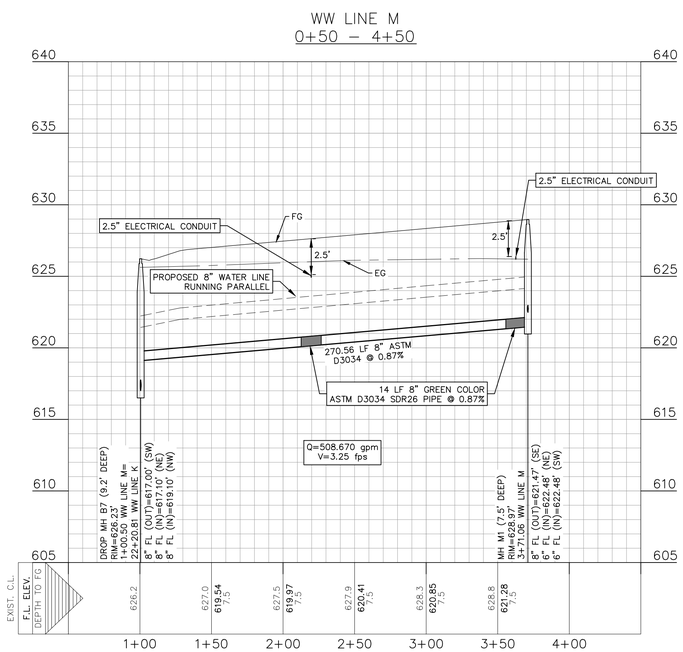




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D.E.	DRAINAGE EASEMENT
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WASTEWATER LINE M PLAN & PROFILE

PARKSIDE PHASE 5

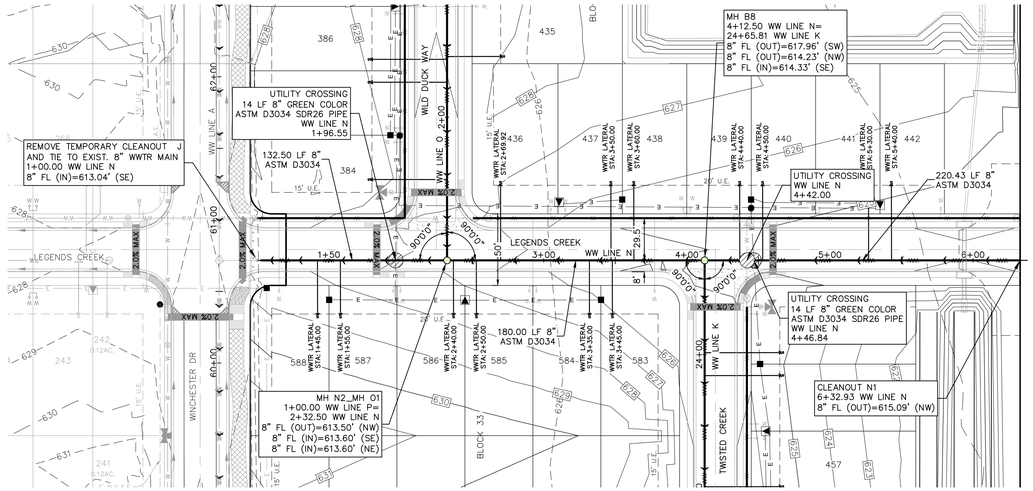
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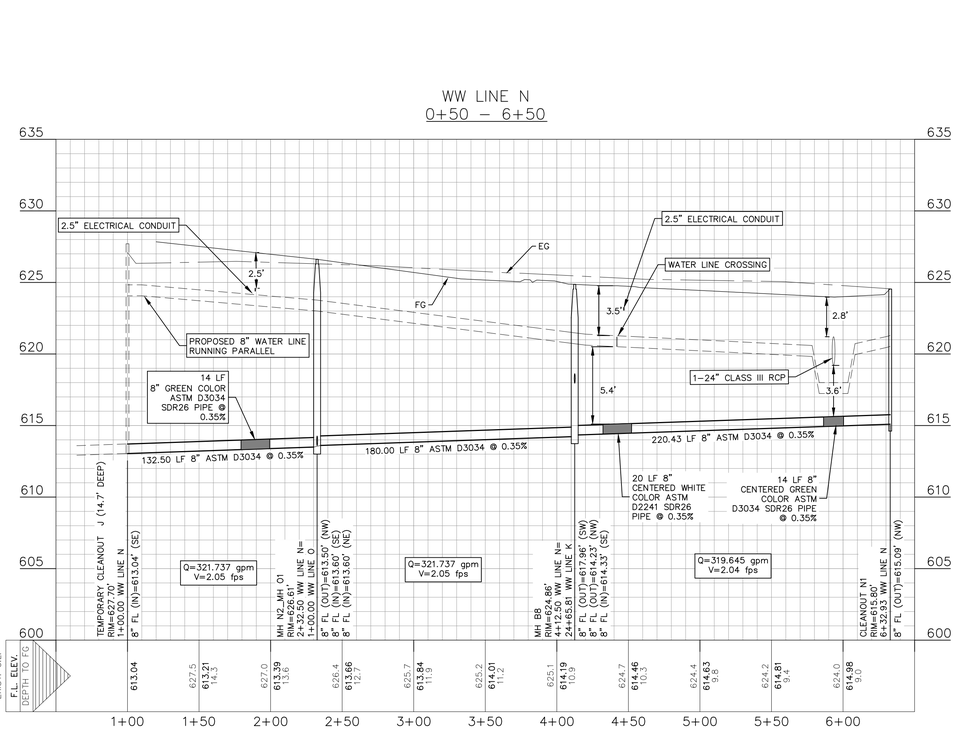
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

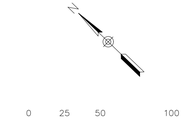
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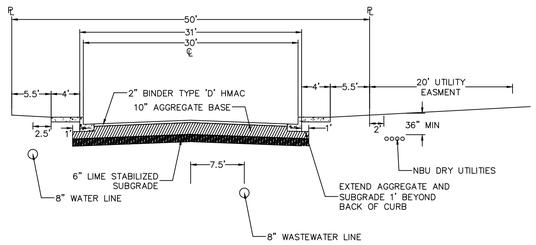






LEGEND

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700	PROPOSED CONTOURS
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U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
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WASTEWATER LINE N PLAN & PROFILE

PARKSIDE PHASE 5

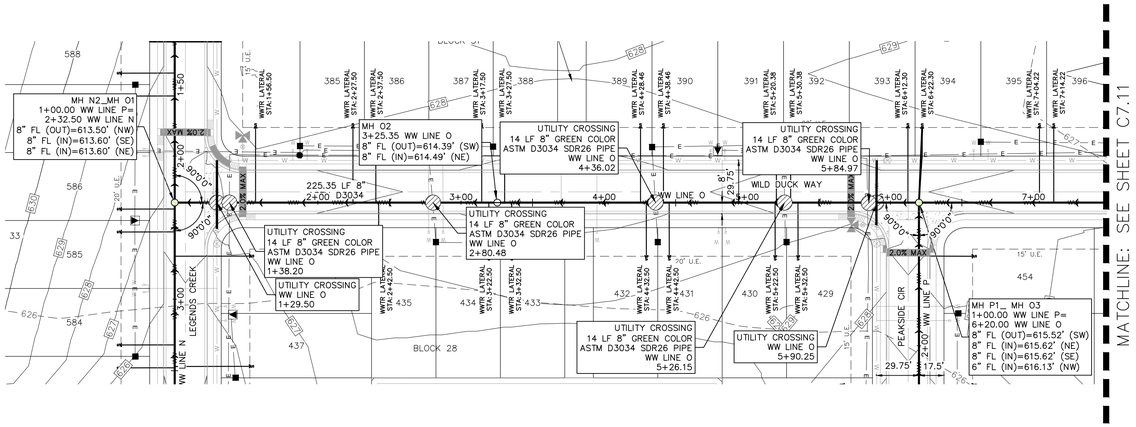
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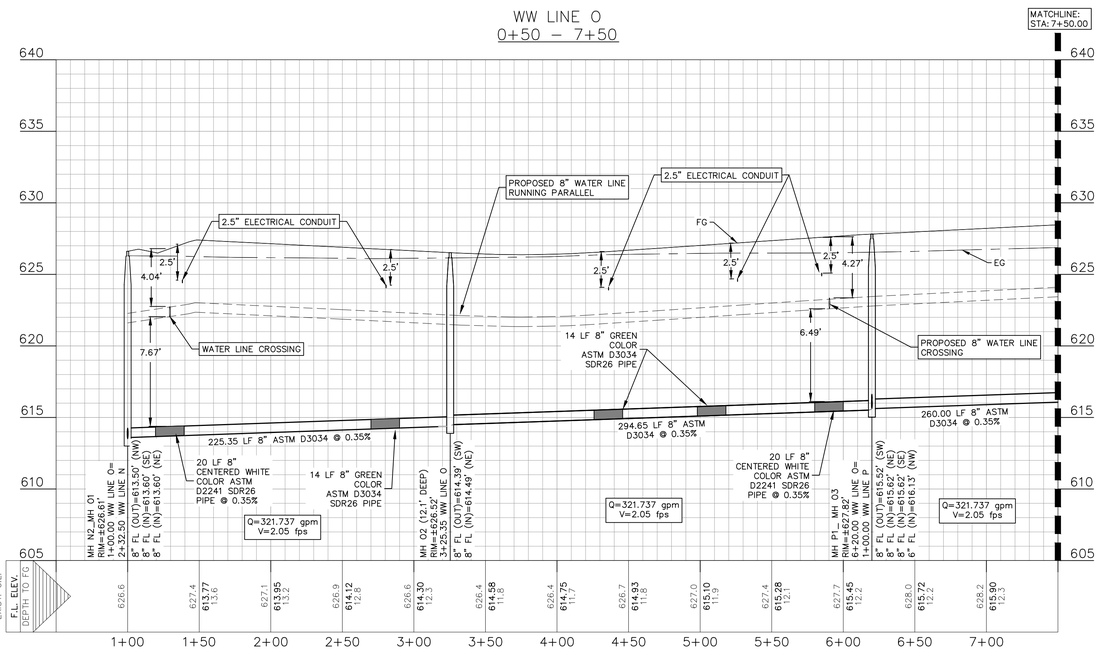
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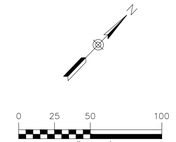
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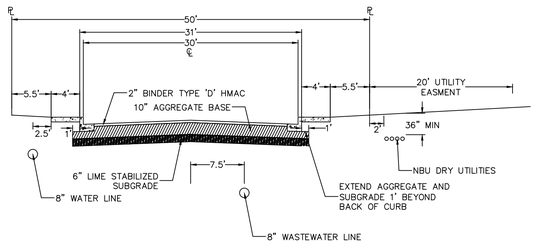






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HMT ENGINEERING & SURVEYING
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TBPE FIRM F-10961
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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

WASTEWATER LINE O PLAN & PROFILE (1 OF 2)

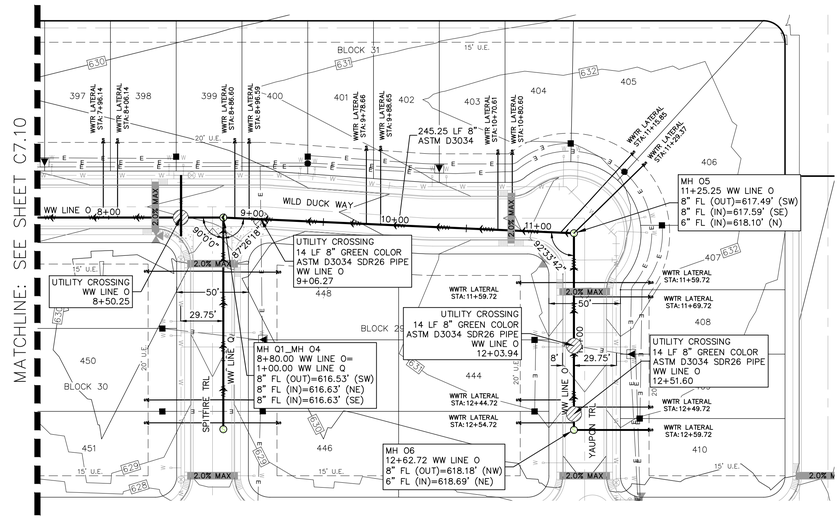
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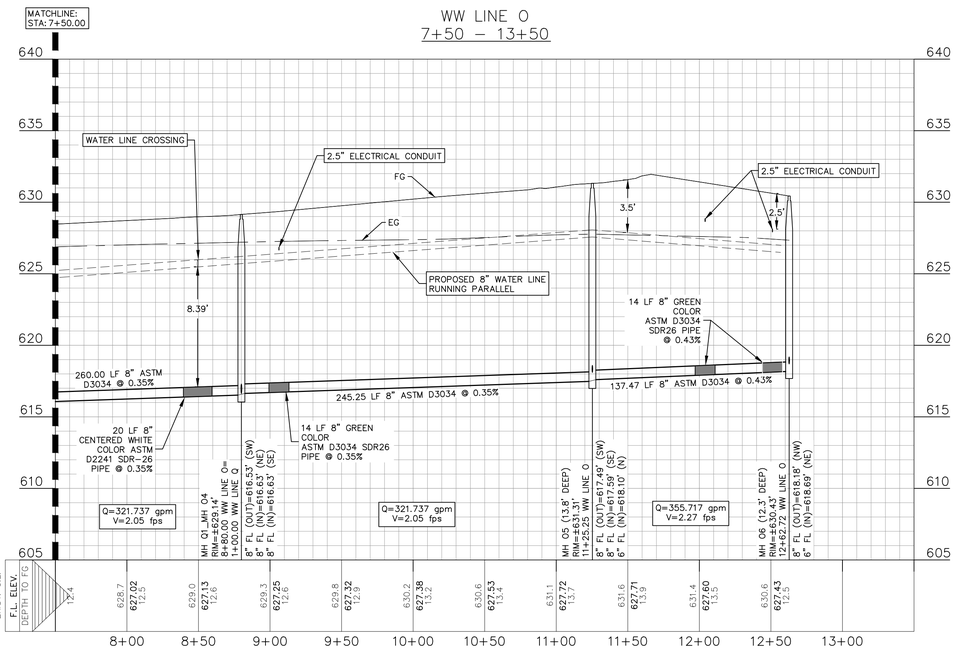
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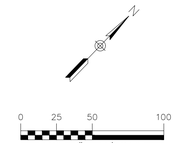
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DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C7.10

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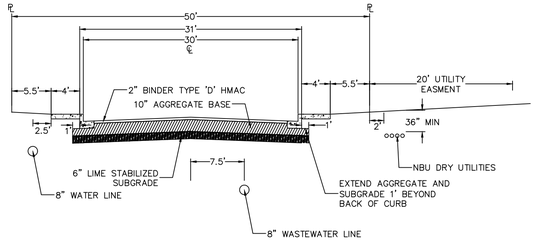






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D.E.	DRAINAGE EASEMENT
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WASTEWATER LINE O PLAN & PROFILE (2 OF 2)

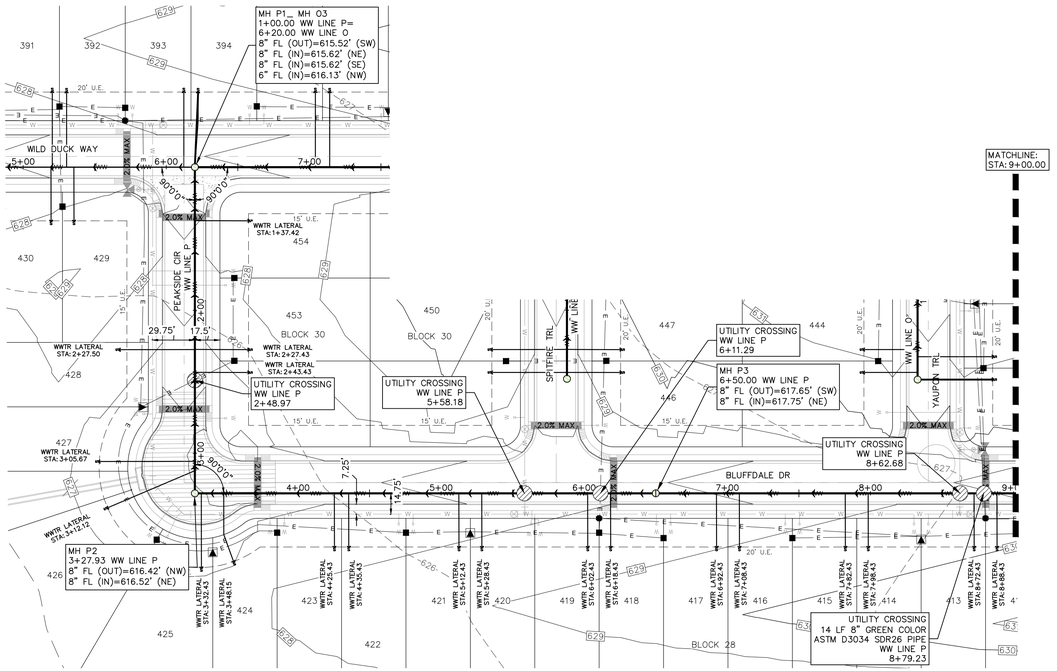
PARKSIDE PHASE 5

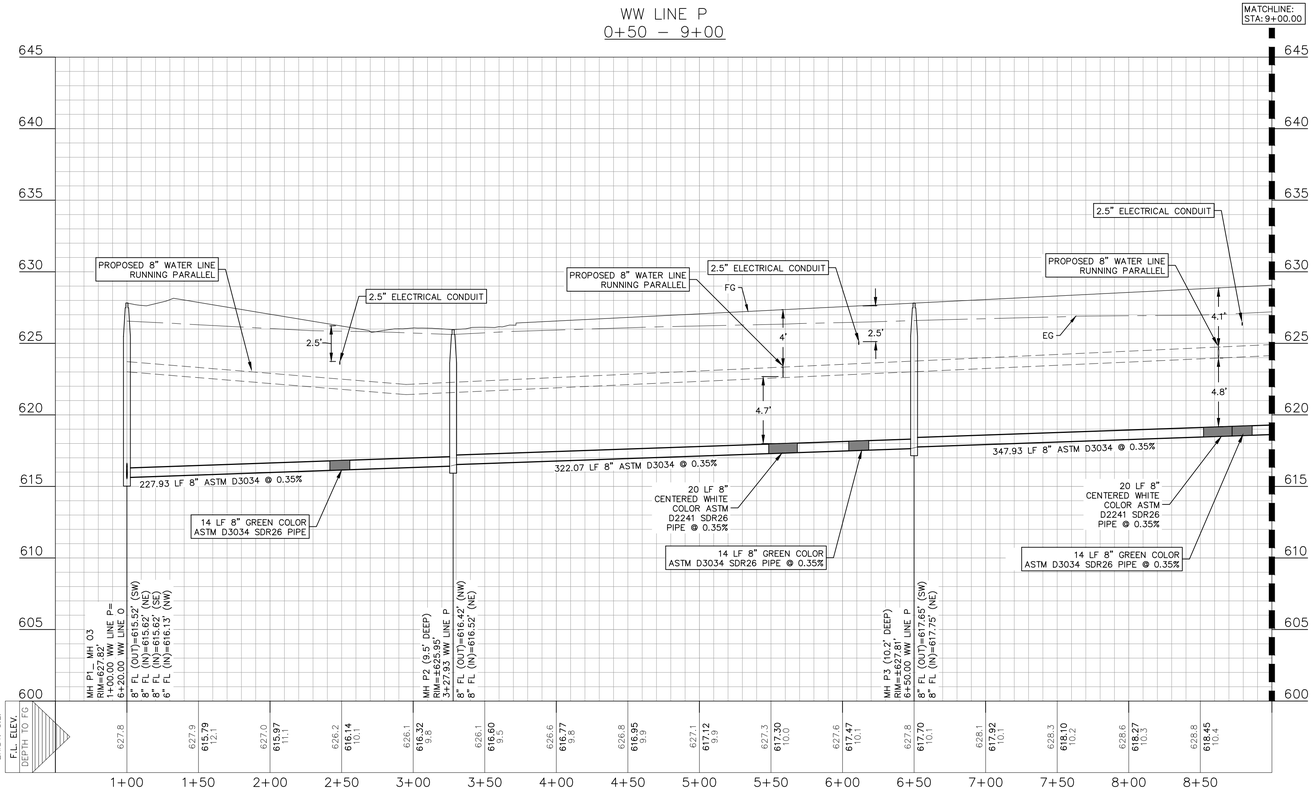
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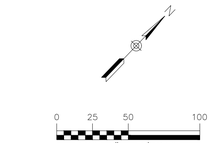
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
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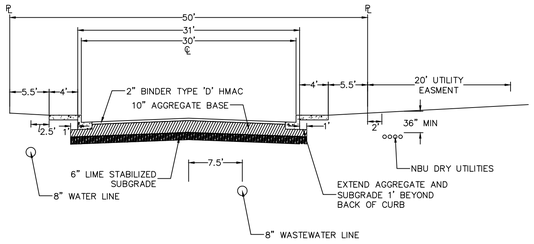






LEGEND

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- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
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WASTEWATER LINE P PLAN & PROFILE (1 OF 2)

PARKSIDE PHASE 5

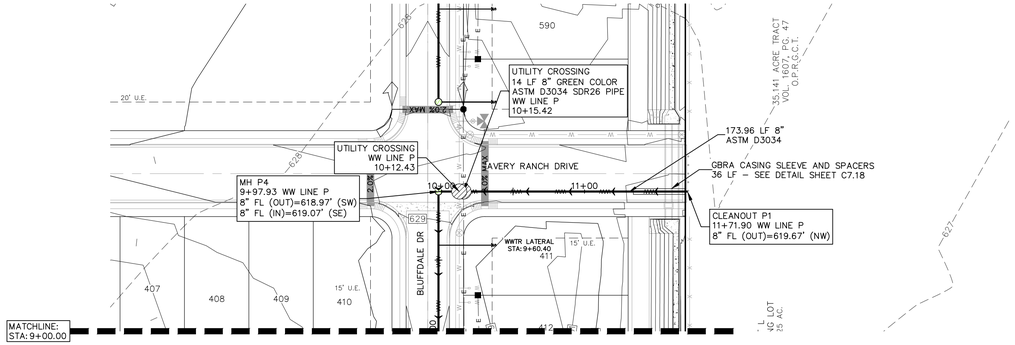
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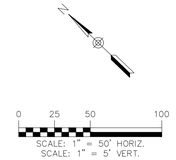
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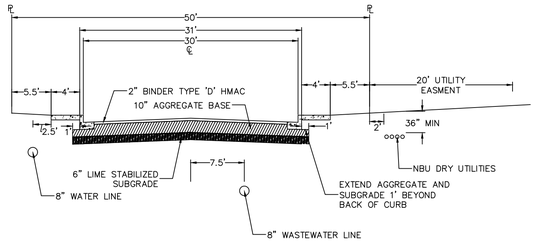
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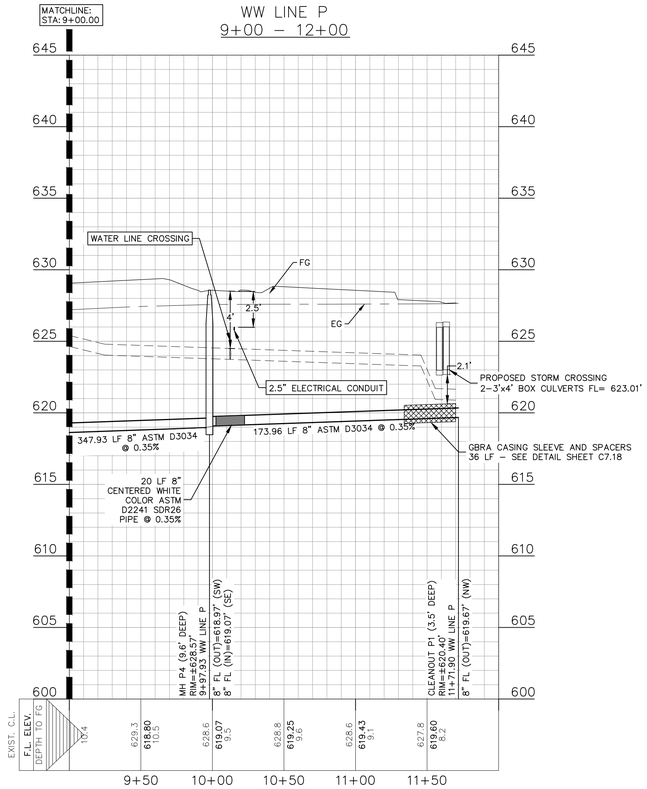




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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 10536000

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WASTEWATER LINE P PLAN & PROFILE (2 OF 2)

PARKSIDE PHASE 5

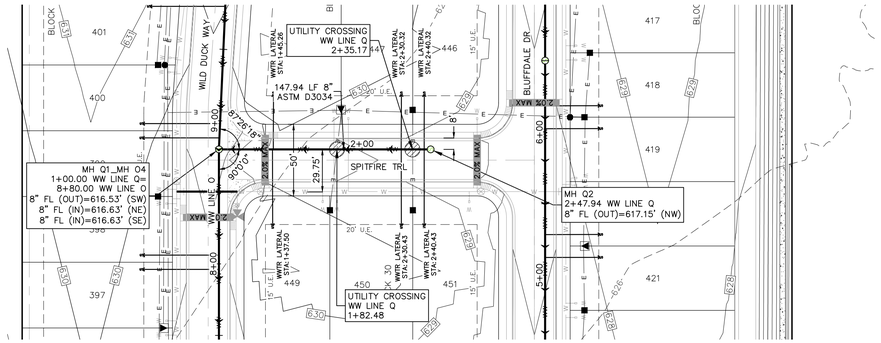
NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C7.13

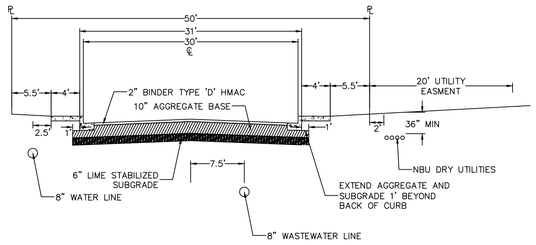
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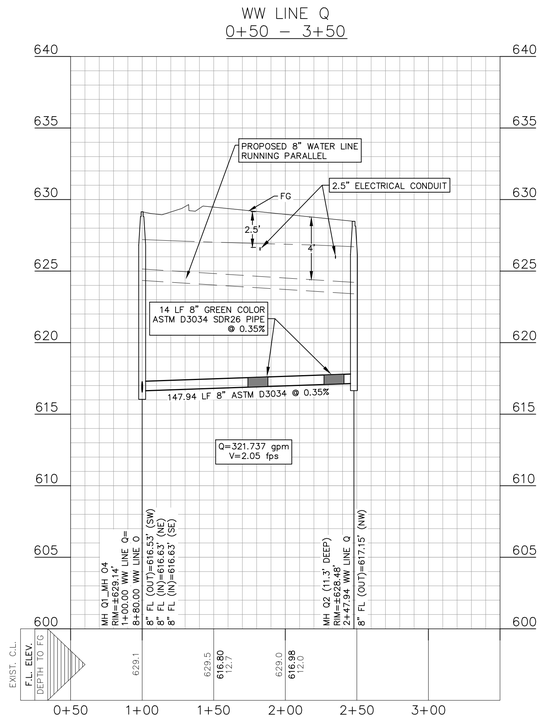




LEGEND

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12/06/2024

WASTEWATER LINE Q PLAN & PROFILE

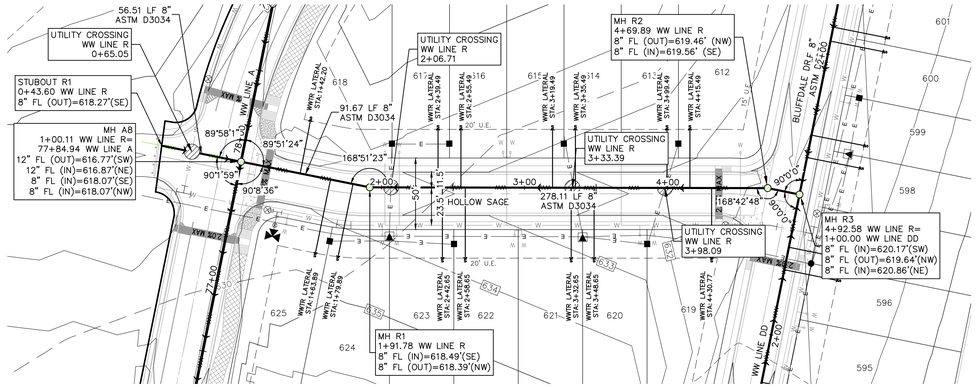
PARKSIDE PHASE 5

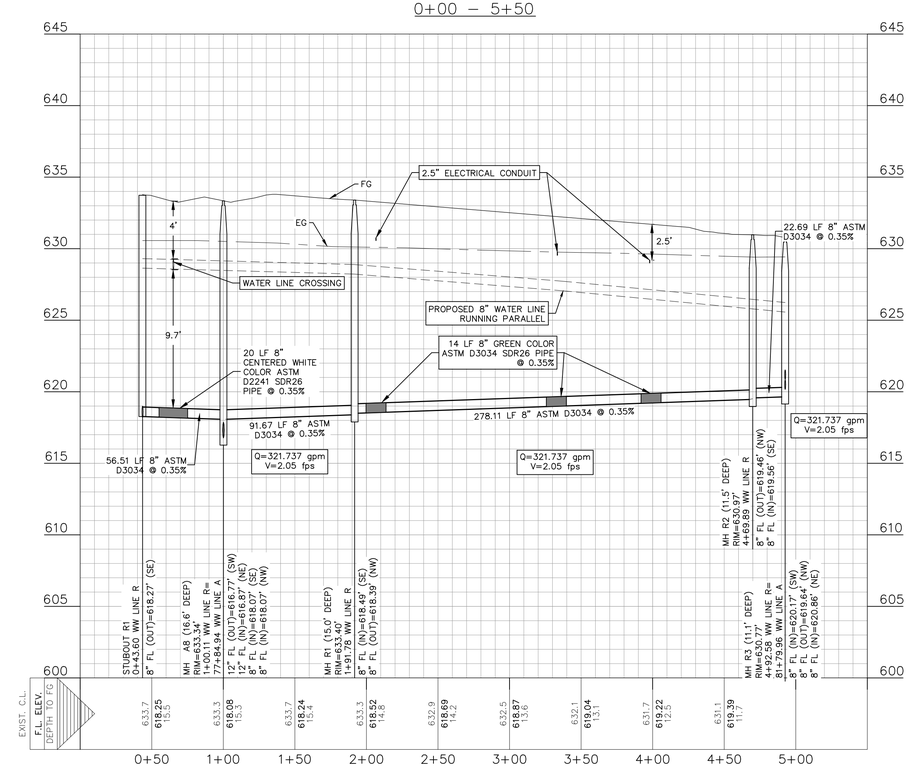
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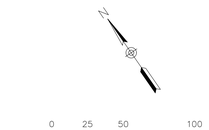
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
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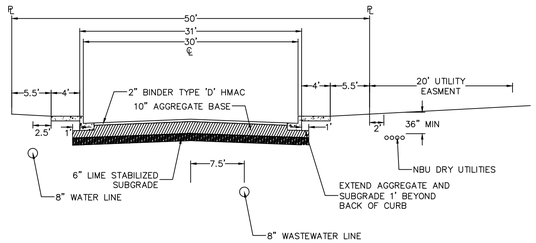






LEGEND

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WASTEWATER LINE R PLAN & PROFILE

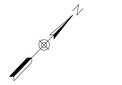
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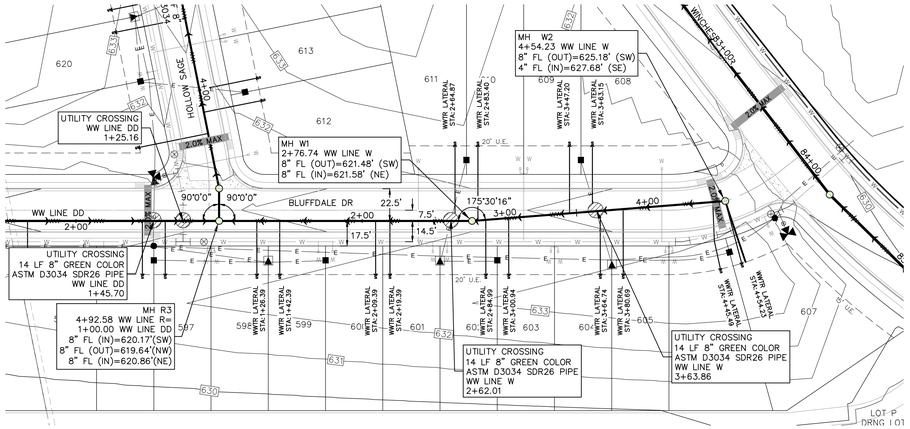
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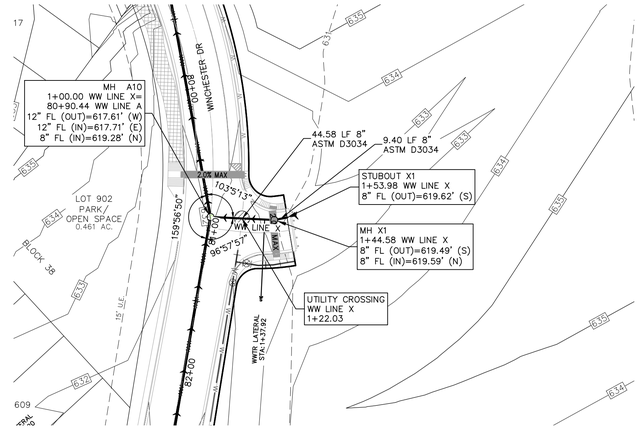
DATE:	DECEMBER 2024
DRAWN BY:	RR
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REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C7.15

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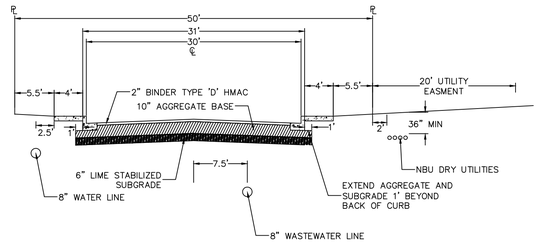




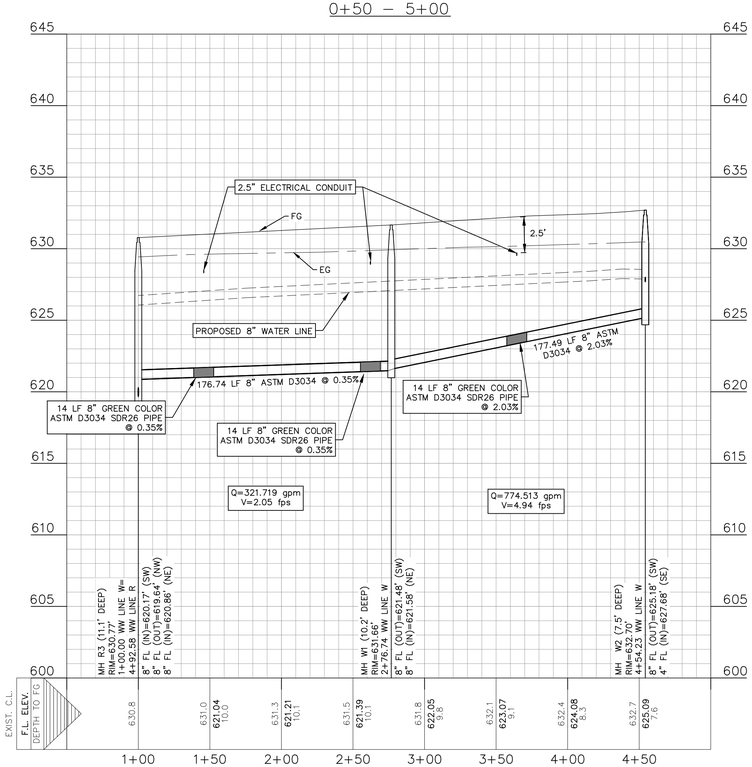


LEGEND

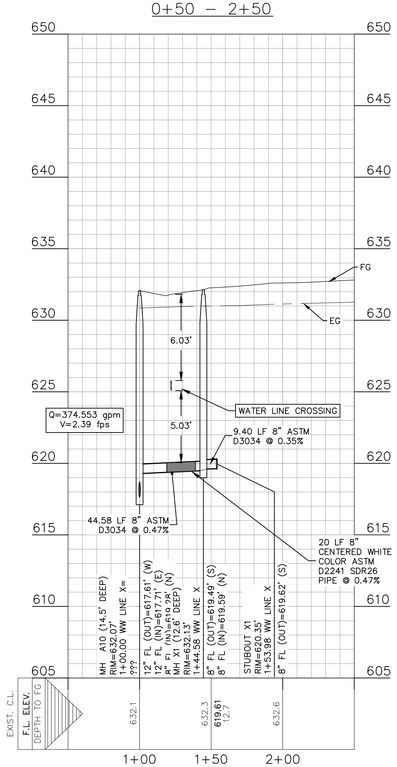
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WW LINE X
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290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT
ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WASTEWATER LINE W & LINE X PLAN & PROFILE

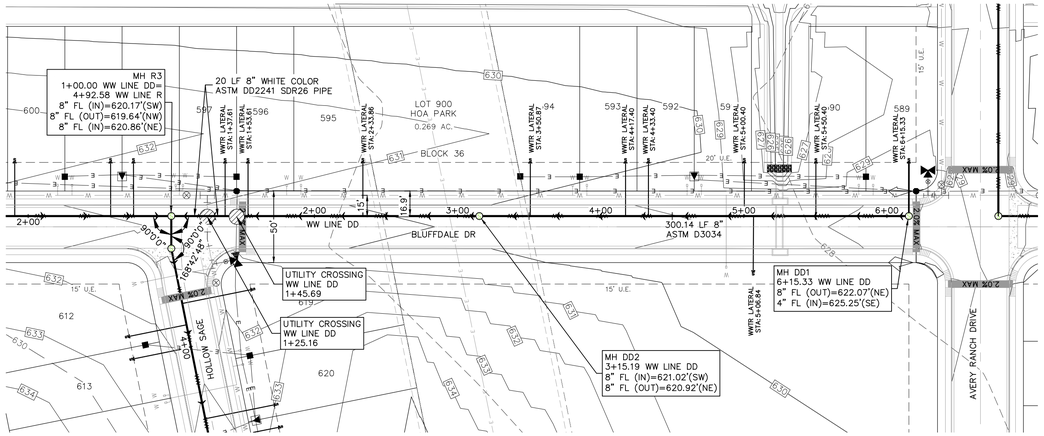
PARKSIDE PHASE 5

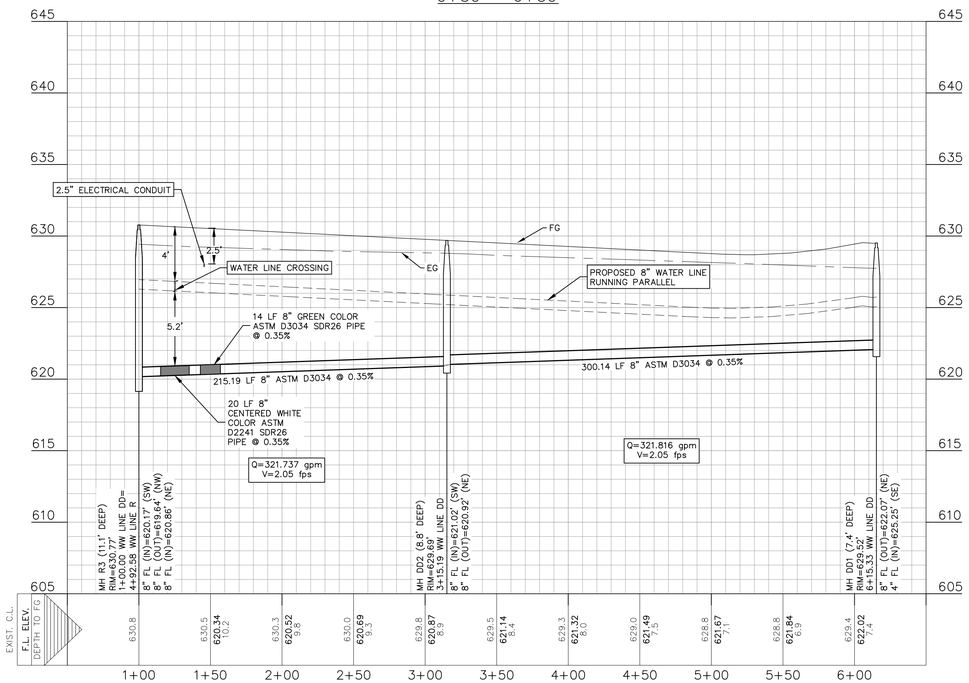
NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C7.16

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03s\337.042_WWTR LINE W P&P.dwg User: philipm Dec 06, 2024 - 12:52pm

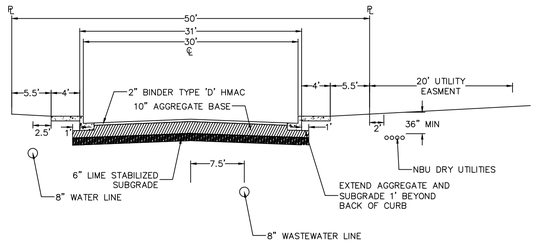






LEGEND

- 700 — EXISTING CONTOURS
- 700 — PROPOSED CONTOURS
- B.L. — BUILDING SETBACK LINE
- U.E. — UTILITY EASEMENT
- D.E. — DRAINAGE EASEMENT
- WW — EXISTING WASTEWATER LINE
- WW — PROPOSED WASTEWATER LINE
- E — PROPOSED ELECTRICAL CONDUIT
- PROPOSED WASTEWATER SERVICE
- UTILITY CROSSING
- KVA TRANSFORMER
- PROPOSED STREET LIGHT, SOLAR (TO BE DESIGNED BY OTHERS)
- SECONDARY ENCLOSURE
- S — SANITARY SEWER MANHOLE



CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION:

SPRINGS HILLS WATER (WATER)	(830) 379-7683
GUADALUPE-BLANCO RIVER AUTHORITY (SEWER)	(830) 379-5822
NEW BRAUNFELS UTILITIES (ELECTRIC)	(830) 608-8951
TIME WARNER CABLE	(830) 625-3408
CENTERPOINT ENERGY (GAS)	(830) 643-6434
AT&T	(830) 303-1333
TEXAS ONE CALL SYSTEM	(800) 245-4545
ENERGY TRANSFER (PETROLEUM PIPELINE)	(210) 262-2486

C.P.E. LOCATOR

CALL CENTER POINT ENERGY LOCATOR AT 1-800-545-6005, 48HRS BEFORE BEGINNING ANY EXCAVATION. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192.181, CENTER POINT ENERGY 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.

TELEPHONE LOCATOR

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STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED
PROFESSIONAL ENGINEER

12/06/2024

WASTEWATER LINE DD PLAN & PROFILE

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

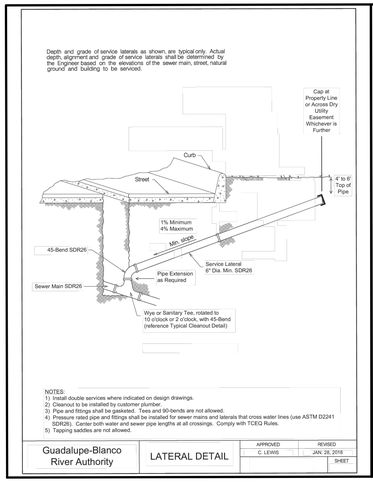
DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET
C7.17

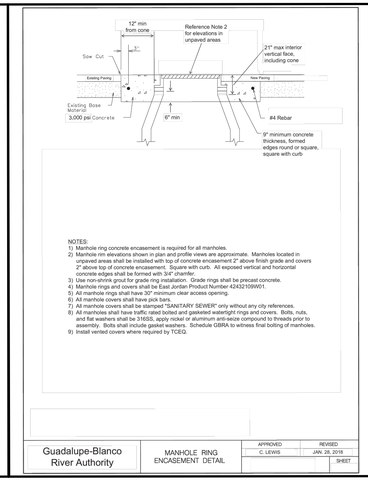
Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03a\337.042_WATER LINE DD P&P.dwg User: philpm Dec 06, 2024 - 12:54pm

UTILITY NOTES:

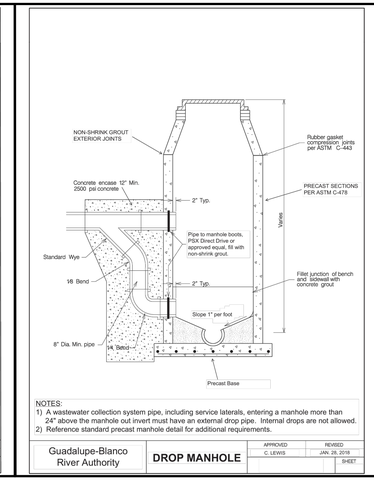
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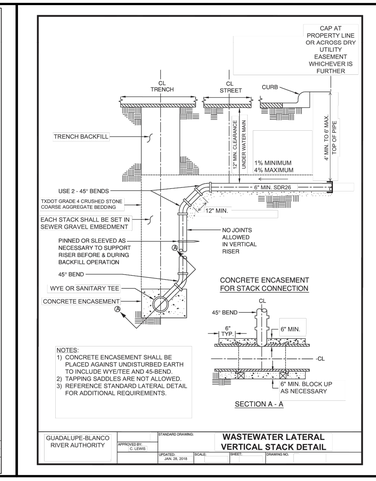
Guadalupe-Blanco River Authority	LATERAL DETAIL	APPROVED	REVISED
		C. LEWIS	JAN. 28, 2018
			SHEET



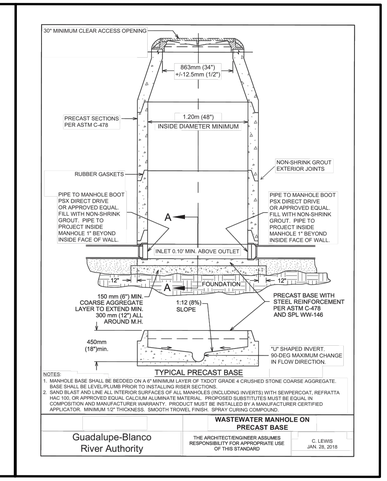
Guadalupe-Blanco River Authority	MANHOLE RING ENCASEMENT DETAIL	APPROVED	REVISED
		C. LEWIS	JAN. 28, 2018
			SHEET



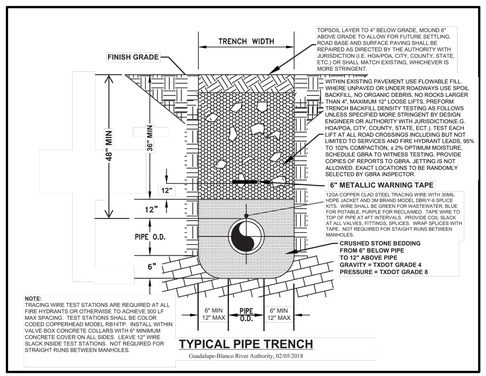
Guadalupe-Blanco River Authority	DROP MANHOLE	APPROVED	REVISED
		C. LEWIS	JAN. 28, 2018
			SHEET



GUADALUPE-BLANCO RIVER AUTHORITY	APPROVED BY: C. LEWIS	STANDARD DRAWING	WASTEWATER LATERAL VERTICAL STACK DETAIL	
		REVISED: JAN. 28, 2018	SCALE:	DWG:

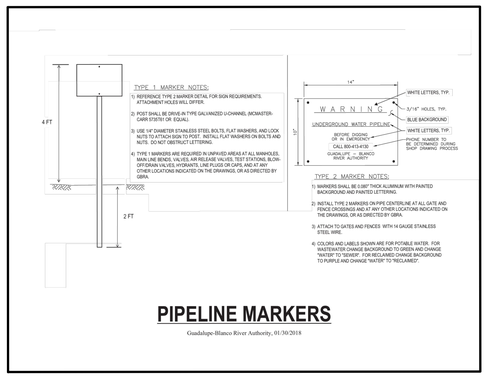


Guadalupe-Blanco River Authority	WASTEWATER MANHOLE ON PRECAST BASE	
	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	C. LEWIS JAN. 28, 2018



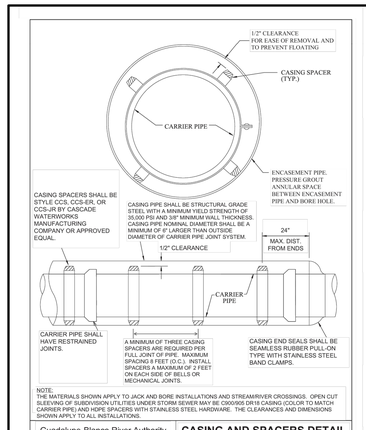
TYPICAL PIPE TRENCH

Guadalupe-Blanco River Authority, 02/05/2018

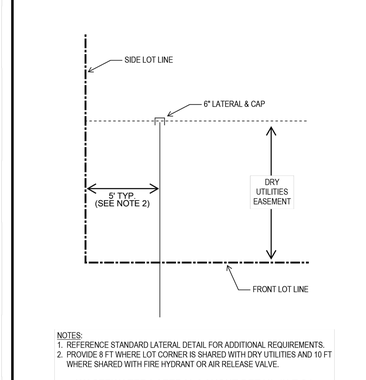


PIPELINE MARKERS

Guadalupe-Blanco River Authority, 01/30/2018



Guadalupe-Blanco River Authority	CASING AND SPACERS DETAIL	
C. LEWIS	JAN. 28, 2018	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
		STANDARD NO:



WASTEWATER LATERAL LAYOUT DETAIL (N.T.S.)

GUADALUPE-BLANCO RIVER AUTHORITY, 12/15/2021

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPE FIRM F-10961
TBPLS FIRM 1053600

HMT ENGINEERING & SURVEYING

STATE OF TEXAS
CHRISTOPHER P. VAN HEERDE
93047
LICENSED PROFESSIONAL ENGINEER

12/06/2024

WASTEWATER DETAILS

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: DECEMBER 2024
DRAWN BY: RR
DESIGNED BY: MTA
REVIEWED BY: CVH
HMT PROJECT NO.: 337.042

SHEET
C7.18

Drawing Name: M:_Projects\337 - Lennar Homes\042 - Parkside Unit 5\03a\337.042_WASTEWATER DETAILS.dwg User: philipm Dec 06, 2024 - 12:54pm

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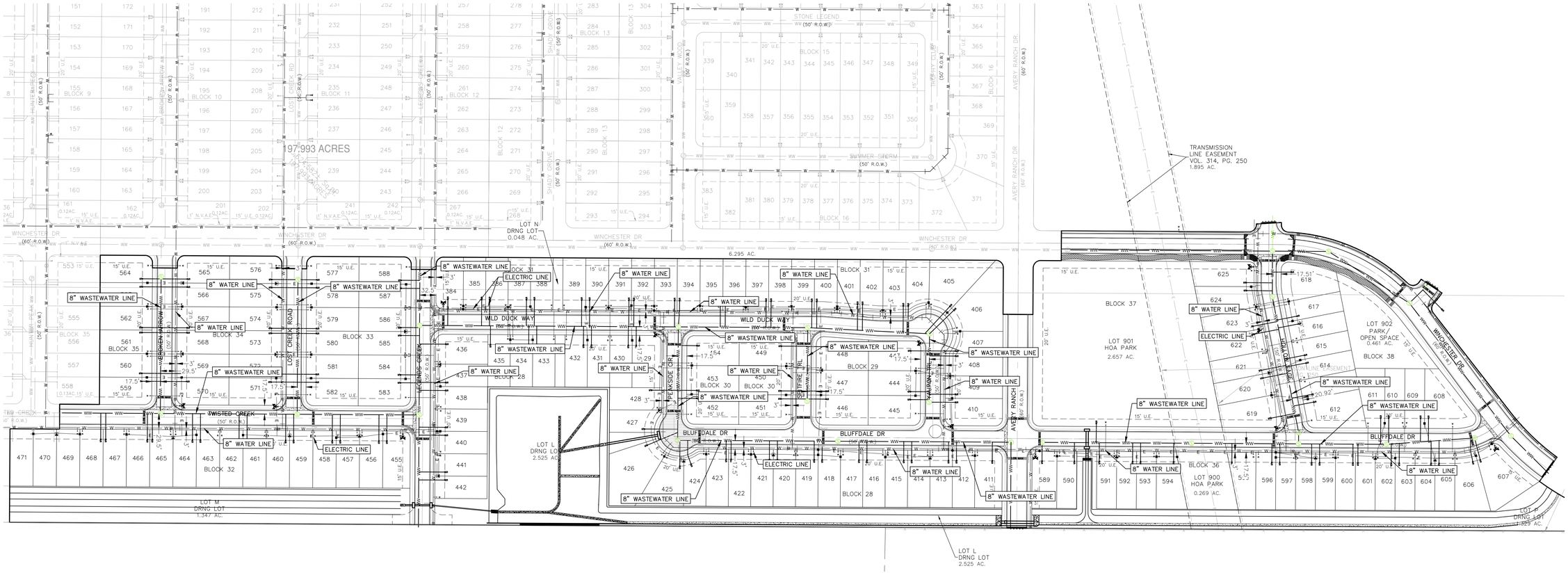
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0 25 50 100
HORIZONTAL SCALE: 1:50

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- BUILDING SETBACK LINE
- UTILITY EASEMENT
- DRAINAGE EASEMENT
- EXISTING WATER LINE
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED WATER FITTING
- UTILITY CROSSING
- EXISTING SEWER LINE
- PROPOSED SEWER LINE
- PROPOSED SEWER SERVICE
- PROPOSED SEWER MANHOLE
- PROPOSED OVERHEAD ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED SWITCHGEAR
- PROPOSED TRANSFORMER
- PROPOSED PEDESTAL
- PROPOSED STREETLIGHT
- EXISTING POWER POLE



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12/06/2024

OVERALL UTILITY

PARKSIDE PHASE 5

NO.	REVISION DESCRIPTION	REVISION DATE

DATE:	DECEMBER 2024
DRAWN BY:	RR
DESIGNED BY:	MTA
REVIEWED BY:	CVH
HMT PROJECT NO.:	337.042

SHEET

C8.01

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