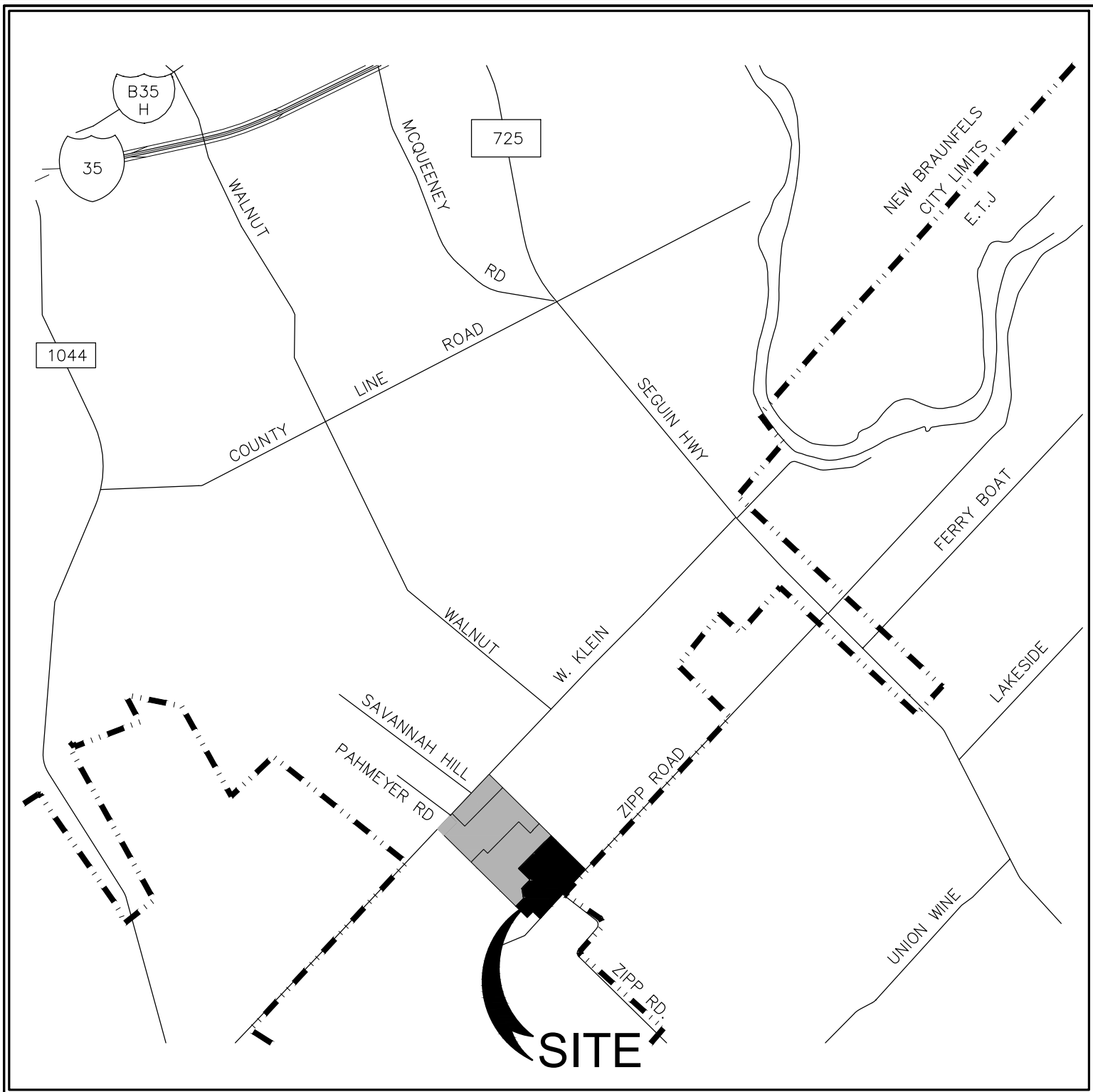


THE SILOS UNIT 3 NEW BRAUNFELS, TEXAS CIVIL SITE CONSTRUCTION PLANS

MILESTONE PROPERTIES
543 BUSBY
SAN ANTONIO, TEXAS 78209



PROJECT LOCATION MAP

SCALE: N.T.S.

PROJECT BENCHMARK

SITE TBM #1
SET SET RAILROAD SPIKE IN POWER POLE
N: 13784894.44
E: 2250466.78
ELEV: 689.37'

SITE TBM #2
SET SET SQUARE CUT ON CONCRETE DRAINAGE STRUCTURE
N: 13783495.74
E: 2252712.96
ELEV: 697.99

LEGAL DESCRIPTION

BEING 23.65 ACRES OUT OF THE SARAH DE WITT SURVEY NO. 48, ABSTRACT NO. 103, GUADALUPE COUNTY, TEXAS, AND BEING ALL OUT OF A TRACT OF LAND CALLED 49.483 ACRES, DESCRIBED IN VOLUME 4194, PAGE 453, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS, AND ALL OUT OF A TRACT OF LAND CALLED 29.990 ACRES, DESCRIBED IN VOLUME 4194, PAGE 488, 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

GAS UTILITIES ARE NOT INCLUDED IN THE CIVIL CONSTRUCTION PLANS. FINAL GAS UTILITY DESIGN SHALL BE APPROVED BY THE CITY FOR ANY WORK WITHIN PUBLIC RIGHT-OF-WAY.

GENERAL NOTES:

- IF CONSTRUCTION HAS NOT COMMENCED WITHIN ONE-YEAR OF CITY AND GBRA APPROVAL FOR CONSTRUCTION INSPECTION, THAT APPROVAL IS NO LONGER VALID.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 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 IN RECORD.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE CITY OF NEW BRAUNFELS TO SET A PRECONSTRUCTION MEETING.
A 48-HOUR ADVANCED NOTIFICATION IS REQUIRED FOR ALL INSPECTION REQUESTS.
 - 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 THE NEED ARISES, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES MAY BE ORDERED BY THE ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE OFFSITE IMPACT OF CONSTRUCTION MUST BE COMPLETED AND IN PLACE PRIOR TO ADDING IMPERVIOUS COVER TO THE SITE.
- THIS DEVELOPMENT IS A TYPE 3 DEVELOPMENT.
THE FEMA FIRM PANEL NUMBER IS **48187C0115F** DATED **NOVEMBER, 02, 2007**. THIS PROJECT IS **NOT** LOCATED WITHIN THE FLOOD HAZARD ZONE. THIS PROJECT IS **NOT** LOCATED WITHIN THE JURISDICTIONAL BOUNDARY OF THE EDWARDS AQUIFER AUTHORITY RECHARGE ZONE.

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.

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P.E. Registration No. 111347

PREPARED BY:



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SHEET LIST TABLE

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C7.4	WASTEWATER LINE G PLAN & PROFILE
C7.5	WASTEWATER LINE H PLAN & PROFILE
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NOTE TO CONTRACTOR:

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.

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.

THE SILOS UNIT 3
CIVIL SITE CONSTRUCTION PLANS

HMT # 056.013

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 SAN ANTONIO 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.

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

GREEN VALLEY SPECIAL UTILITY DISTRICT (WATER) (830) 914-2330

GBRA (SEWER) (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

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192(e), GAS COMPANIES MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT THE WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.

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

SEWER NOTES

- GRAVITY WASTEWATER PIPE AND FITTINGS SHALL BE GREEN COLOR GASKETED ASTM D3034 SDR26. AT WATER CROSSINGS INCLUDING FIRE HYDRANT LEADS, WHITE COLOR GASKETED ASTM D2241 SDR26 SHALL BE USED FOR MAINS AND LATERALS. SANITARY TAPPING SADDLES ARE NOT ALLOWED.
- ALL TESTING SHALL BE ARRANGED AND PAID FOR BY THE CONTRACTOR.
- ALL TESTING MUST BE COMPLETE PRIOR TO PAVING STREETS.
- ALL TESTING MUST BE COMPLETE PRIOR TO PERFORMING TIE-INS TO EXISTING WATER OR WASTEWATER SYSTEMS.
- ALL OTHER UTILITIES MUST BE COMPLETE PRIOR TO PERFORMING WATER AND WASTEWATER PRESSURE TESTING.
- CONTRACTOR SHALL PERFORM PRE-TESTING TO VERIFY PASSING RESULTS PRIOR TO REQUESTING GBRA INSPECTION. PROVIDE LOCATION POINT FOR GBRA DIGITAL TEST GAUGE.
- PERFORM TRENCH BACKFILL DENSITY TESTING AT INTERVALS SPECIFIED BY THE DESIGN ENGINEER, EXACT LOCATIONS TO BE DESIGNATED BY INSPECTOR. SCHEDULE GBRA TO WITNESS TESTING. PROVIDE COPIES OF REPORTS TO GBRA.
- ALL GRAVITY WASTEWATER PIPING SHALL BE SUBJECT TO LOW PRESSURE AIR TESTING IN ACCORDANCE WITH TCEQ REQUIREMENTS. INFILTRATION AND EXFILTRATION TESTING ARE NOT ALLOWED.
- MANDREL SHALL BE PULLED BY HAND THRU ALL GRAVITY WASTEWATER MAINS PRIOR TO INSTALLATION OF CORROSION RESISTANT MANHOLE LINING, BUT NO EARLIER THAN 30 DAYS AFTER BACKFILLING IS COMPLETE.
- ALL MANHOLES REGARDLESS OF VEHICULAR TRAFFIC DETOURING, SHALL BE VACUUM TESTED AFTER COMPLETION OF BACKFILL, COMPACTION, AND FINAL GRADING OF ROAD BASE BUT PRIOR TO INSTALLATION OF ASPHALT PAVING AND PRIOR TO INSTALLATION OF CORROSION RESISTANT MANHOLE LINING. VACUUM TESTING SHALL BE PERFORMED WITH A PLATE TYPE TEST HEAD PLACED ON TOP OF COMPLETED MANHOLE METAL CASTING RING WHICH HAS BEEN INSTALLED AND ENCASED IN CONCRETE AT FINAL GRADE. MANHOLES SHALL BE TESTED AT 10 INCHES OF MERCURY FOR 2-MINUTES DURATION. ALLOWABLE LOSS IS 1-INCH OF MERCURY. INFILTRATION AND EXFILTRATION TESTING ARE NOT ALLOWED.
- PERFORM VIDEO INSPECTION OF GRAVITY WASTEWATER PIPING AFTER APPLICATION OF CORROSION RESISTANT MANHOLE LINING. FLOOD SYSTEM WITH WATER IMMEDIATELY PRIOR TO PERFORMING VIDEO INSPECTION. HANG AND DRAG A GOLF BALL IN FRONT OF CAMERA. PIPE GRADE IS OUT OF TOLERANCE IF GOLF BALL BECOMES FULLY SUBMERGED. SCHEDULE GBRA TO WITNESS VIDEO INSPECTION. PROVIDE DVDS AND WRITTEN REPORTS TO GBRA.
- ALL WORK SHALL BE IN ACCORDANCE WITH GBRA PUBLISHED STANDARDS.
- MATERIAL SUBMITTALS SHALL BE PROVIDED FOR GBRA REVIEW AND APPROVAL.
- ALL WATER AND WASTEWATER INSTALLATIONS MUST BE INSPECTED AND APPROVED BY GBRA PRIOR TO BACKFILLING OR OTHERWISE COVERING THE WORK. THIS INCLUDES CROSSINGS OF WATER AND WASTEWATER BY OTHER UTILITIES. GBRA WILL PERFORM A MAXIMUM OF ONE (1) INSPECTION DAILY FOR ONE (1) HOUR DURATION BETWEEN 8:00AM AND 5:00PM EXCLUDING WEEKENDS AND HOLIDAYS. CALL 830-379-5822 TO SCHEDULE INSPECTIONS (48-HOURS ADVANCE NOTICE IS REQUIRED FOR ALL INSPECTIONS)
- TRENCH EXCAVATION AND PIPE INSTALLATION WILL NOT BE PERMITTED UNTIL SUBGRADE HAS BEEN ESTABLISHED. SURVEY STAKING MUST BE INSTALLED PRIOR TO AND MAINTAINED DURING TRENCH EXCAVATION AND PIPE INSTALLATION. SURVEY STAKING SHALL INCLUDE HORIZONTAL AND VERTICAL CONTROL AT A MINIMUM OF 50 FOOT STATION INTERVALS. SURVEY STAKING SHALL BE PERFORMED BY THE CONTRACTOR.
- SANITARY TAPPING SADDLES ARE NOT ALLOWED.
- PIPE BELLS SHALL BE INSTALLED IN UPSTREAM DIRECTION.
- ALL PIPING SHALL BE INSTALLED IN STRAIGHT ALIGNMENT. PIPE CURVATURE IS NOT ALLOWED.
- WATER AND WASTEWATER PIPE JOINTS SHALL BE CENTERED AT CROSSINGS WITH ALL OTHER UTILITIES. BOTH PIPE JOINTS SHALL BE CENTERED WHERE WATER CROSSES WASTEWATER, INCLUDING WASTEWATER LATERALS.
- MAINTAIN A MINIMUM OF 10FT HORIZONTAL AND 12IN VERTICAL SEPARATION BETWEEN WATER AND WASTEWATER AND OTHER UTILITIES. SHARED TRENCHES ARE NOT ALLOWED.
- WATER AND WASTEWATER PIPING SHALL BE SLEEVED IF LOCATED UNDER BOX CULVERTS OR MULTIPLE BARREL STORM SEWER CROSSINGS REGARDLESS OF SIZE AND SINGLE BARRELS 30"OR LARGER.
- ALL EXPOSED VERTICAL AND HORIZONTAL CONCRETE EDGES SHALL BE FORMED WITH ¾"CHAMFER STRIPS. CONCRETE IN UNPAVED AREAS SHALL BE 2"ABOVE FINISH GRADE.

WATER NOTES:

- ALL WATER MAINS SHALL BE AWWA C900 (CLASS 150 OR GREATER).
- WATER SERVICES SHALL BE SINGLE 1" COPPER TUBING.
- WATER LINE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE NBU SYSTEMS CONNECTION & CONSTRUCTION POLICY.
- WATER MAIN SHALL HAVE A MINIMUM OF 42 INCHES OF COVER, OTHERWISE CONCRETE ENCASEMENT WILL BE REQUIRED.
- EACH UNIT IN A DUPLEX, TRIPLEX, FOURPLEX, OR CONDOMINIUM SHALL BE PROVIDED WITH AN INDIVIDUAL WATER METER. A MASTER METER CAN BE CONSIDERED FOR SEPARATE BUILDINGS, HOWEVER, THOSE BUILDINGS MUST BE PLUMBED TO ALLOW SEPARATE METERS FOR FUTURE CONSIDERATION.
- CONTRACTOR WILL KEEP THE AREA ON TOP OF AND AROUND THE WATER METER BOX FREE OF ALL OBJECTS AND DEBRIS.
- INITIAL BACKFILL OF WATER LINES SHALL BE MANUFACTURED SAND OR PEA GRAVEL AS PER NBU SYSTEMS CONNECTION & CONSTRUCTION POLICY.
- 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.
- HYDROSTATIC TESTING IS DONE FROM VALVE TO VALVE.
- 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.
- 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.
- 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.

13. THRUST BLOCKS WILL NOT BE ALLOWED ON THE SYSTEM WITHOUT SPECIAL APPROVAL. JOINTS WILL BE RESTRAINED WITH RESTRAINING SYSTEMS APPROVED BY NBU AND RESTRAINT LENGTH SHALL BE SUBMITTED TO NBU AT THE TIME OF PLAN SUBMITTAL.

14. 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.

CITY OF NEW BRAUNFELS CONSTRUCTION NOTES **REVISED 11/2016**
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 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 SET A PRECONSTRUCTION MEETING. A 48-HOUR ADVANCED NOTIFICATION IS REQUIRED FOR ALL INSPECTION AND MEETING REQUESTS.

- 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 SUCH 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 (AUTOCAD 2000 MINIMUM AND PDF) 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 INSURE 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 GEO-TECHNICAL ENGINEER. FLEXIBLE BASE OR FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED SIX-INCHES (6") COMPACTED. 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 GEO-TECHNICAL 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 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.

ITEM 340

ASPHALTIC CONCRETE PAVEMENT SHALL BE TYPE "D" HOT MIX ASPHALT AS DEFINED IN TXDOT'S STANDARD SPECIFICATIONS FOR 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 SURFACE COURSE SHALL BE PLANT MIXED, HOT LAID TYPE "D" MEETING THE SPECIFICATION REQUIREMENTS OF TXDOT ITEM 340. THE MIX SHALL BE DESIGNED FOR A STABILITY OF AT LEAST 35 AND SHALL BE COMPACTED TO BETWEEN 91 AND 95 PERCENT OF THE MAXIMUM THEORETICAL DENSITY AS DETERMINED BY TXDOT TEST METHOD TEX-227-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 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 GEO-TECHNICAL 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.

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

(INDICATE THE 2 OPTIONS ON THE CONSTRUCTION PLANS).

- SAWCUT EXISTING STREET AND MATCH TO NEW CONSTRUCTION.

- SAWCUT EXISTING CURB TO TIE INTO EXISTING CONSTRUCTION.
- SAWCUT EXISTING STREET AND MATCH ELEVATION TO PROPOSED CONSTRUCTION.
- SAWCUT EXISTING CURB TO TIE INTO PROPOSED CURB 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.

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 (TW) - 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

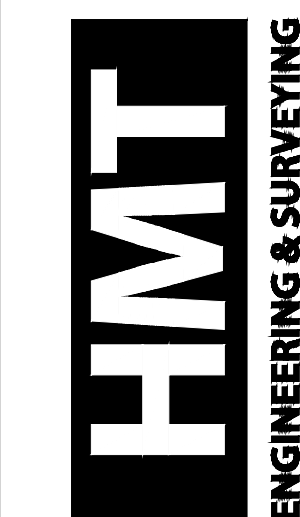
- INSTALL EROSION CONTROLS PER APPROVED PLAN.
- TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED WEEKLY AND PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR EROSION CONTROL ISSUES.
- CONDUCT DEMOLITION ACTIVITIES, IF APPLICABLE.
- CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.
- CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION.
- CONSTRUCT DEVELOPMENT PER APPROVED PLANS.
- INSTALL STREETScape AND/OR LANDSCAPING IMPROVEMENTS.
- CONTRACTOR TO VEGETATE ANY DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN OF 65% VEGETATION PRIOR TO COMPLETION
- REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

CONSTRUCTION NOTES

THE SILOS
UNIT 3

05/10/2018

410 N. SEQUIN AVE.
NEW BRAUNFELS, TX 78130
HMTNB.COM
P(830)625-8555-F(830)625-8556
TBPE FIRM F-10961
TBPLS FIRM 10153600



REVISION	DATE								
NO.									

DATE: **MAY 2018**

DRAWN BY: **MM**

DESIGNED BY: **AM/MM**

REVIEWED BY: **SWH/SCH**

HMT PROJECT NO.:
056.013

SHEET
C0.1

PLAT NOTES:

- ALL LOTS WITHIN THE SUBDIVISION WILL BE PROVIDED WATER BY GVSUD. SEWER SERVICE WILL BE PROVIDED BY GBRA. ELECTRIC WILL BE PROVIDED BY GVEC. TELEPHONE AND CABLE SERVICES FOR THE SUBDIVISION WILL BE PROVIDED BY AT&T COMMUNICATIONS AND/OR SPECTRUM.
- 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.
- 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.
- THIS SUBDIVISION IS NOT WITHIN THE EDWARDS AQUIFER RECHARGE ZONE.
- THIS SUBDIVISION IS WITHIN THE CITY LIMITS OF NEW BRAUNFELS, TEXAS.
- THIS SUBDIVISION IS WITHIN THE NEW BRAUNFELS INDEPENDENT SCHOOL DISTRICT.
- NO PORTION OF THE SUBDIVISION IS LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREA (100 YR. FLOOD), AS DEFINED BY THE GUADALUPE COUNTY, TEXAS, FLOOD INSURANCE RATE MAP NUMBER 48187C0115F, EFFECTIVE DATE SEPTEMBER 2, 2007 AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- 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 OVER GRANTRY'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.
- FUTURE DEVELOPMENT IS SUBJECT TO CHAPTER 114 (STREETS, SIDEWALKS AND OTHER PUBLIC SPACES) OF THE NEW BRAUNFELS CODE OF ORDINANCES.
- 4' WIDE SIDEWALKS WILL BE CONSTRUCTED PER CITY STANDARDS ALONGSIDE AND ADJACENT TO THE CURB BY THE HOME BUILDER AT THE TIME OF DEVELOPMENT ALONG TUPELO TANK DR, RED BARN BEND, WHEATFIELD WAY, AND FARMERS DELL. 6' WIDE SIDEWALKS WILL BE CONSTRUCTED PER CITY STANDARDS ALONGSIDE AND ADJACENT TO THE CURB BY THE HOME BUILDER AT THE TIME OF DEVELOPMENT ALONG PAHMEYER RD. 6' WIDE SIDEWALKS WILL BE CONSTRUCTED PER CITY STANDARDS ALONGSIDE AND ADJACENT TO THE CURB BY THE DEVELOPER AT THE TIME OF STREET CONSTRUCTION ON LOT 502 ALONG PAHMEYER RD. 4' WIDE SIDEWALKS WILL BE CONSTRUCTED PER CITY STANDARDS ALONGSIDE AND ADJACENT TO THE CURB BY THE DEVELOPER AT THE TIME OF STREET CONSTRUCTION ON LOT 503 ALONG RED BARN BEND AND FARMERS DELL.
- 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.
- THIS SUBDIVISION IS SUBJECT TO THE CITY OF NEW BRAUNFELS PARK LAND DEDICATION AND DEVELOPMENT ORDINANCE. THIS PLAT IS APPROVED FOR 101 DWELLING UNITS. ONE DWELLING UNIT PER BUILDABLE LOT WHERE FEES ARE DUE AT THE TIME OF PLATING. 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.
- THIS UNIT CONTAINS 101 BUILDABLE RESIDENTIAL LOTS. ALL LOTS MEET THE MINIMUM SQUARE FOOTAGE REQUIREMENT ACCORDING TO THE ZONING ORDINANCE.
- LOTS 502 AND 503 (DRAINAGE) WILL BE OWNED AND MAINTAINED BY THE SILOS HOMEOWNERS ASSOCIATION.

KNOW ALL MEN BY THESE PRESENTS:

I, THE UNDERSIGNED MARK F. CONLAN, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECTLY MADE ON THE GROUND UNDER MY SUPERVISION AND IN COMPLIANCE WITH CITY AND STATE SURVEY REGULATIONS AND LAWS AND THAT THE CORNER MONUMENTS WERE PROPERLY PLACED UNDER MY SUPERVISION.
PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE.

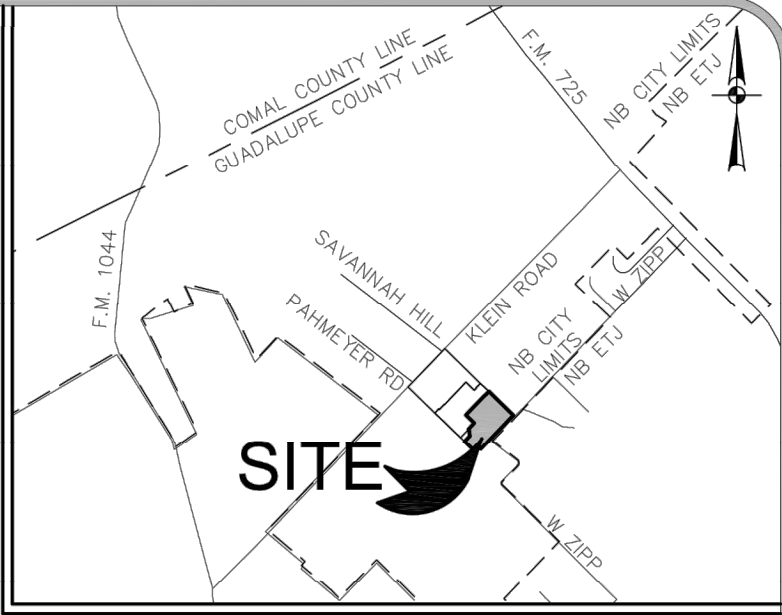
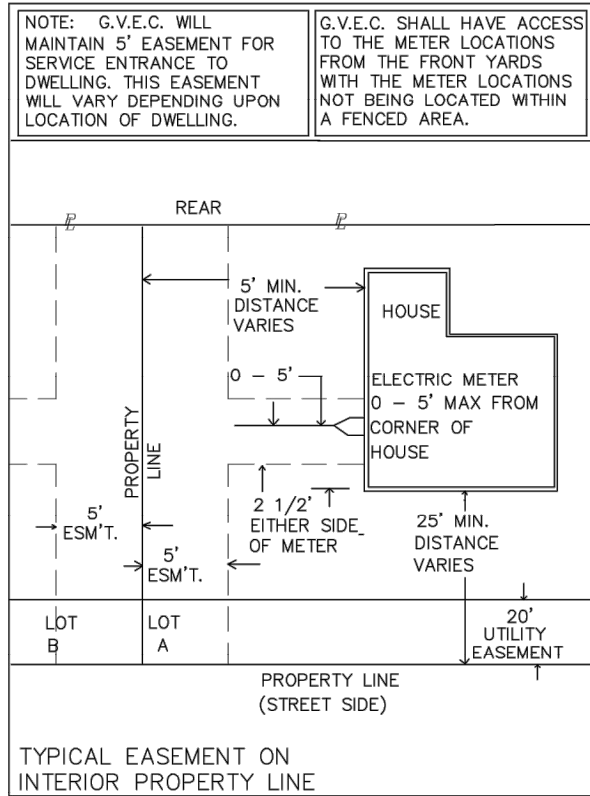
MARK F. CONLAN
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 6342
410 N. SEGUIN AVE., NEW BRAUNFELS, TEXAS 78130

PLAT REVISED DECEMBER 19, 2017
PLAT PREPARED NOVEMBER 20, 2017



410 N. SEGUIN AVE.
NEW BRAUNFELS,
TEXAS 78130
WWW.HMTNB.COM
PH: (830)625-8555
TBPE FIRM F-10961
TBPLS FIRM 10153600

FINAL PLAT ESTABLISHING
THE SILOS, UNIT THREE
BEING 23.65 ACRES OUT OF THE SARAH DE WITT SURVEY NO. 48, ABSTRACT NO. 103, GUADALUPE COUNTY, TEXAS, AND BEING A PORTION OUT OF A TRACT OF LAND CALLED 49.483 ACRES, DESCRIBED IN VOLUME 4194, PAGE 453, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS, AND A PORTION OF A TRACT OF LAND CALLED 29.990 ACRES DESCRIBED IN VOLUME 4194, PAGE 488, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS.



GVEC NOTES:

- GVEC TO HAVE A 5' WIDE EASEMENT ON ALL ROAD CROSSINGS IN WHICH ELECTRIC OR COMMUNICATION LINES ARE LOCATED.
- GVEC WILL POSSESS A 5' WIDE EASEMENT TO THE SERVICE METER LOCATION. EASEMENT TO FOLLOW SERVICE LINE AND WILL VARY DEPENDING ON LOCATION OF BUILDING OR STRUCTURE.
- GVEC SHALL HAVE ACCESS TO METER LOCATIONS FROM THE FRONT YARD WITH THE LOCATION NOT BEING WITHIN A FENCED AREA.
- ALL UTILITY EASEMENTS ARE FOR THE CONSTRUCTION, MAINTENANCE (INCLUDING BUT NOT LIMITED TO REMOVAL OF TREES AND OTHER OBSTRUCTIONS), READING OF METERS, AND REPAIR OF ALL OVERHEAD AND UNDERGROUND UTILITIES.

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, _____, COUNTY CLERK OF GUADALUPE COUNTY, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT OF WRITING WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE _____ DAY OF _____, A.D., 20____, AT _____, M. AND DULY RECORDED THE _____ DAY OF _____, A.D. 20____, AT _____, M. IN THE MAP AND PLAT RECORDS OF GUADALUPE COUNTY IN BOOK VOLUME _____, ON PAGE _____, IN TESTIMONY WHEREOF WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE THIS _____ DAY OF _____, 20____.

COUNTY CLERK, GUADALUPE COUNTY, TEXAS

DEPUTY _____

STATE OF TEXAS
COUNTY OF GUADALUPE

I, THE UNDERSIGNED OWNER OF THE LAND SHOWN ON THIS PLAT, AND DESIGNATED HEREIN AS THE SILOS, UNIT THREE, A SUBDIVISION TO THE CITY OF NEW BRAUNFELS, COUNTY OF 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.

MILESTONE CREST INVESTMENTS, LTD.
CHESLEY SWANN III - AUTHORIZED AGENT
543 BUSBY
SAN ANTONIO, TEXAS 78209

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: _____



05/10/2018

SUBDIVISION PLAT (1 OF 2)

THE SILOS
UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: **MAY 2018**
DRAWN BY: **MM**
DESIGNED BY: **AM/MM**
REVIEWED BY: **SWH/SCH**
HMT PROJECT NO.:
056.013

SHEET
C0.2

FOR REFERENCE ONLY

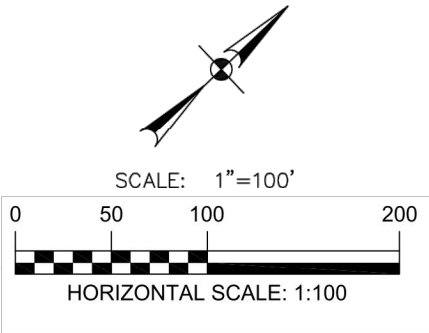


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NEW BRAUNFELS,
TEXAS 78130
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TBPE FIRM F-10961
TBPLS FIRM 10153600

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD LENGTH
C1	29.00'	330.00'	005°02'04"	14.51'	28.99'
C2	55.22'	270.00'	011°43'02"	27.70'	55.12'
C3	91.68'	330.00'	015°55'05"	46.14'	91.39'
C4	23.16'	15.00'	088°27'46"	14.60'	20.93'
C5	64.45'	100.00'	036°55'36"	33.39'	63.34'
C6	23.56'	15.00'	090°00'00"	15.00'	21.21'
C7	23.56'	15.00'	090°00'00"	15.00'	21.21'
C8	23.56'	15.00'	090°00'00"	15.00'	21.21'
C9	10.18'	15.00'	038°52'15"	5.29'	9.98'
C10	146.38'	50.00'	167°44'30"	465.62'	99.43'
C11	10.18'	15.00'	038°52'15"	5.29'	9.98'
C12	23.56'	15.00'	090°00'00"	15.00'	21.21'
C13	23.56'	15.00'	090°00'00"	15.00'	21.21'
C14	174.01'	270.00'	036°55'43"	90.15'	171.02'
C16	23.56'	15.00'	090°00'00"	15.00'	21.21'
C18	96.67'	150.00'	036°55'36"	50.08'	95.01'
C19	23.56'	15.00'	090°00'00"	15.00'	21.21'
C20	23.56'	15.00'	090°00'00"	15.00'	21.21'
C21	212.68'	330.00'	036°55'36"	110.18'	209.02'

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	5.24'	S80°51'01"W
L2	29.26'	N09°08'59"W
L3	5.12'	N80°51'01"E

FINAL PLAT ESTABLISHING
THE SILOS, UNIT THREE
BEING 23.65 ACRES OUT OF THE SARAH DE WITT SURVEY NO. 48, ABSTRACT NO. 103, GUADALUPE COUNTY, TEXAS, AND BEING A PORTION OUT OF A TRACT OF LAND CALLED 49.483 ACRES, DESCRIBED IN VOLUME 4184, PAGE 453, OFFICIAL PUBLIC RECORDS, GUADALUPE COUNTY, TEXAS, AND A PORTION OF A TRACT OF LAND CALLED 29.990 ACRES DESCRIBED IN VOLUME 4194, PAGE 488, 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"
 - B.L. = BUILDING SETBACK LINE
 - U.E. = UTILITY EASEMENT
 - D.E. = DRAINAGE EASEMENT
 - 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

PULTE HOMES OF TEXAS, L.P.
CALLED 36,728 AC.
DOC. NO. 2017007614
O.P.R.G.C.T.

SUBDIVISION PLAT (2 OF 2)

THE SILOS
UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

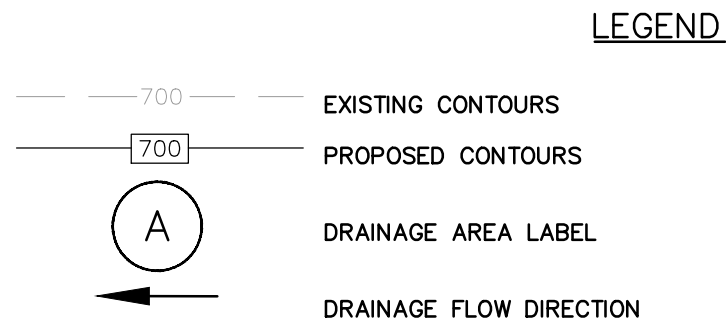
SHEET
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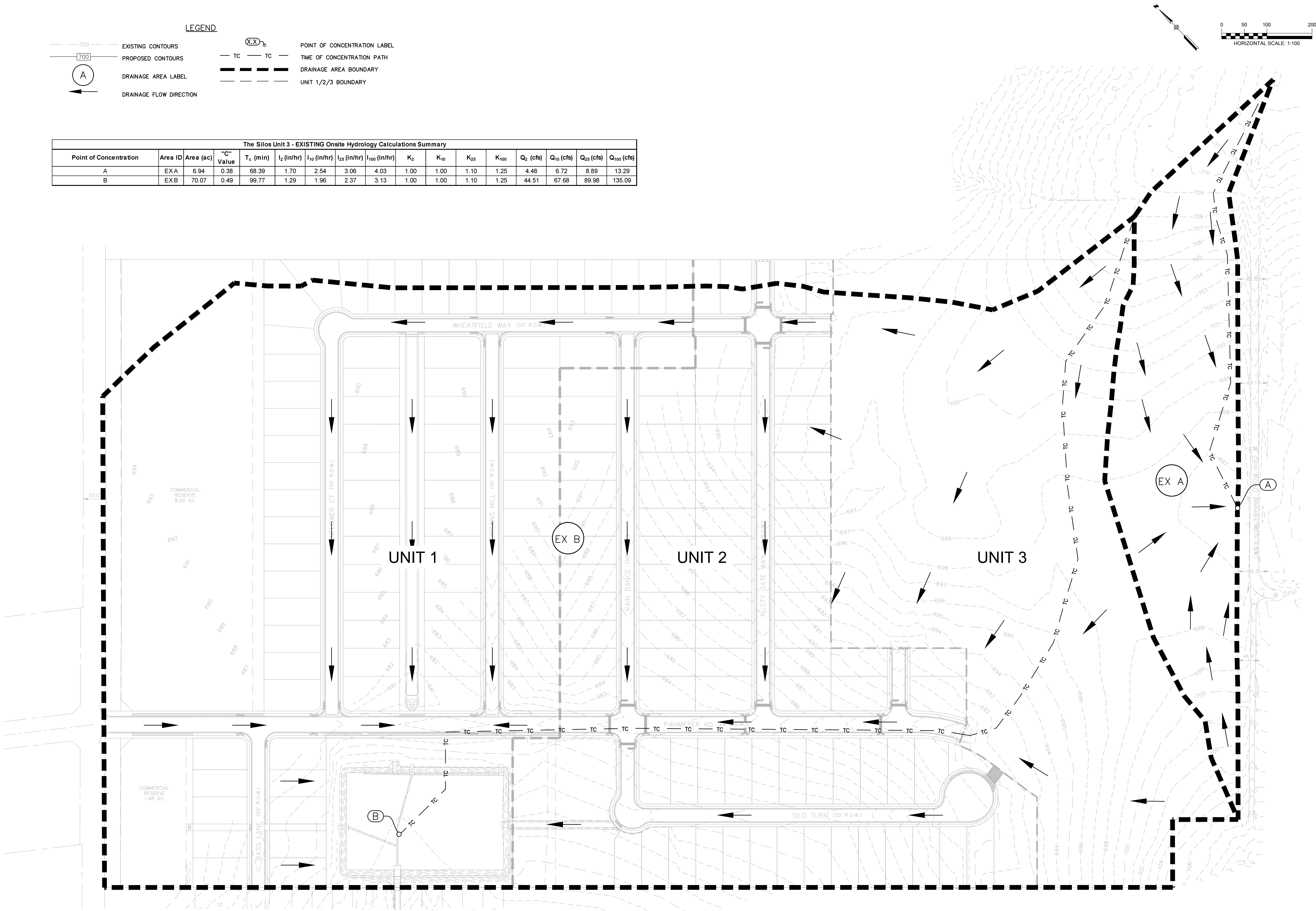


05/10/2018

Drawing Name: N:\Projects\056 - Milestone Properties\056.013 - The Silos Unit 3\056.013.C1.0 - EXISTING.Dwg User: mato May 14, 2018 9:35am



The Silos Unit 3 - EXISTING Onsite Hydrology Calculations Summary																
Point of Concentration	Area ID	Area (ac)	"C" Value	T _c (min)	I ₂ (in/hr)	I ₁₀ (in/hr)	I ₂₅ (in/hr)	I ₁₀₀ (in/hr)	K ₂	K ₁₀	K ₂₅	K ₁₀₀	Q ₂ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
A	EXA	6.94	0.38	68.39	1.70	2.54	3.06	4.03	1.00	1.00	1.10	1.25	4.48	6.72	8.89	13.29
B	EXB	70.07	0.49	99.77	1.29	1.96	2.37	3.13	1.00	1.00	1.10	1.25	44.51	67.68	89.98	135.09



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.

EXISTING DRAINAGE AREA MAP

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C1.0

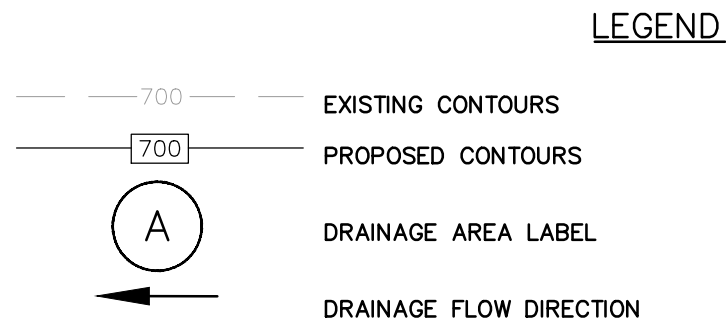
THE SILOS
UNIT 3

05/10/2018

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Drawing Name: N:_Projects\056 - Milestone Properties\056.013 - The Silos Unit 3\CH\056.013_C1.1 - PROPOSED Dwg User: matta May 14, 2018 - 9:35am



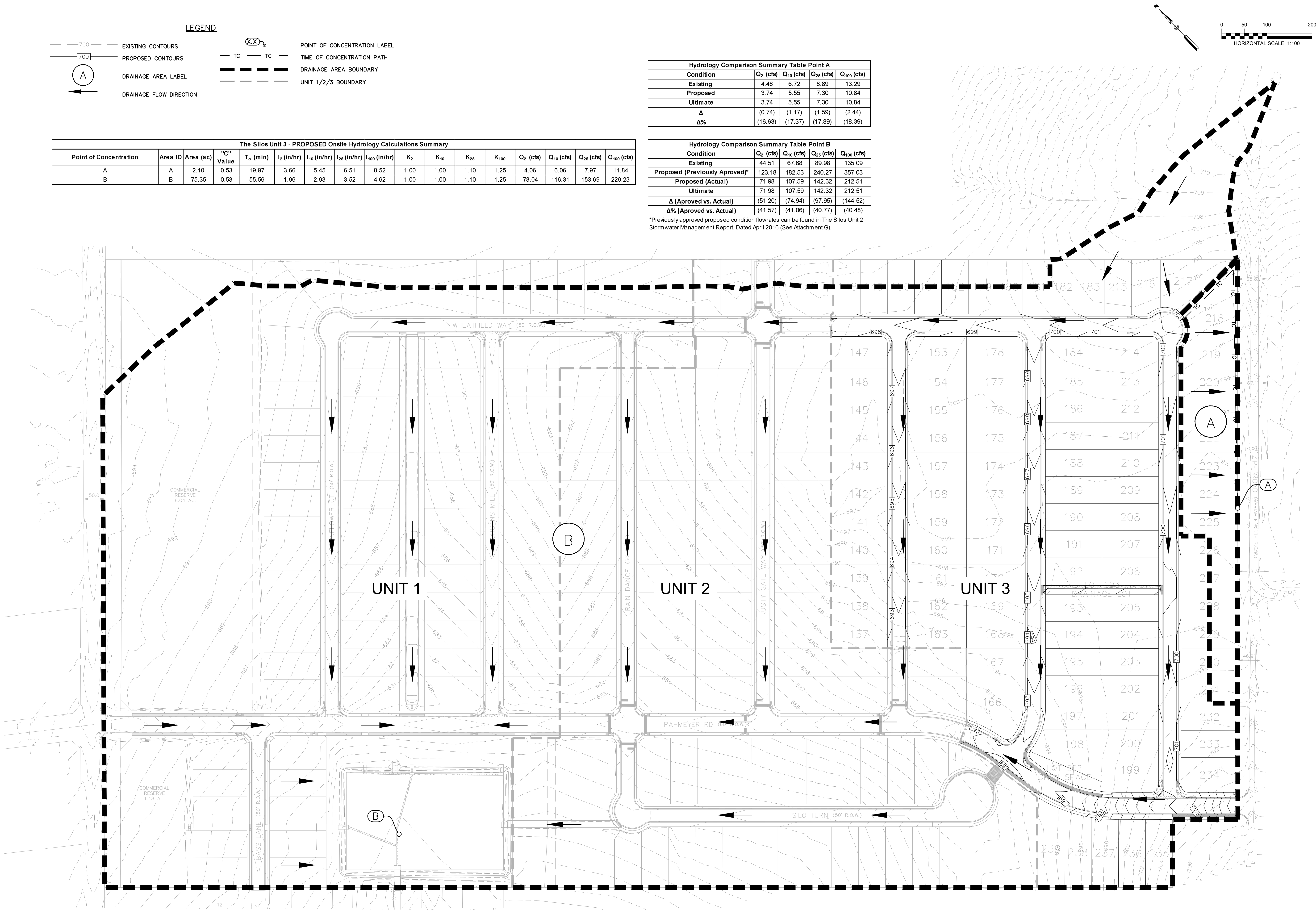
The Silos Unit 3 - PROPOSED Onsite Hydrology Calculations Summary												
Point of Concentration	Area ID	Area (ac)	"C" Value	T _c (min)	I ₂ (in/hr)	I ₁₀ (in/hr)	I ₂₅ (in/hr)	I ₁₀₀ (in/hr)	K ₂	K ₁₀	K ₂₅	K ₁₀₀
A	A	2.10	0.53	19.97	3.66	5.45	6.51	8.52	1.00	1.00	1.10	1.25
B	B	75.35	0.53	55.56	1.96	2.93	3.52	4.62	1.00	1.00	1.10	1.25

Q ₂ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
4.06	6.06	7.97	11.84
78.04	116.31	153.69	229.23

Hydrology Comparison Summary Table Point A				
Condition	Q ₂ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
Existing	4.48	6.72	8.89	13.29
Proposed	3.74	5.55	7.30	10.84
Ultimate	3.74	5.55	7.30	10.84
Δ	(0.74)	(1.17)	(1.59)	(2.44)
Δ%	(16.63)	(17.37)	(17.89)	(18.39)

Hydrology Comparison Summary Table Point B				
Condition	Q ₂ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
Existing	44.51	67.68	89.98	135.09
Proposed (Previously Approved)*	123.18	182.53	240.27	357.03
Proposed (Actual)	71.98	107.59	142.32	212.51
Ultimate	71.98	107.59	142.32	212.51
Δ (Approved vs. Actual)	(51.20)	(74.94)	(97.95)	(144.52)
Δ% (Approved vs. Actual)	(41.57)	(41.06)	(40.77)	(40.48)

*Previously approved proposed condition flowrates can be found in The Silos Unit 2 Stormwater Management Report, Dated April 2016 (See Attachment G).



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PROPOSED/ULTIMATE DRAINAGE

AREA MAP

**THE SILOS
UNIT 3**

NO.	REVISION	DESCRIPTION	DATE

DATE:	MAY 2018
DRAWN BY:	MM
DESIGNED BY:	AM/MM
REVIEWED BY:	SWH/SCH
HMT PROJECT NO.:	056.013

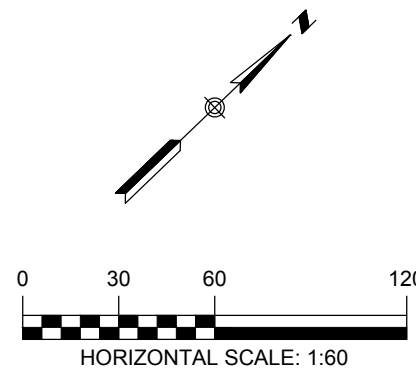
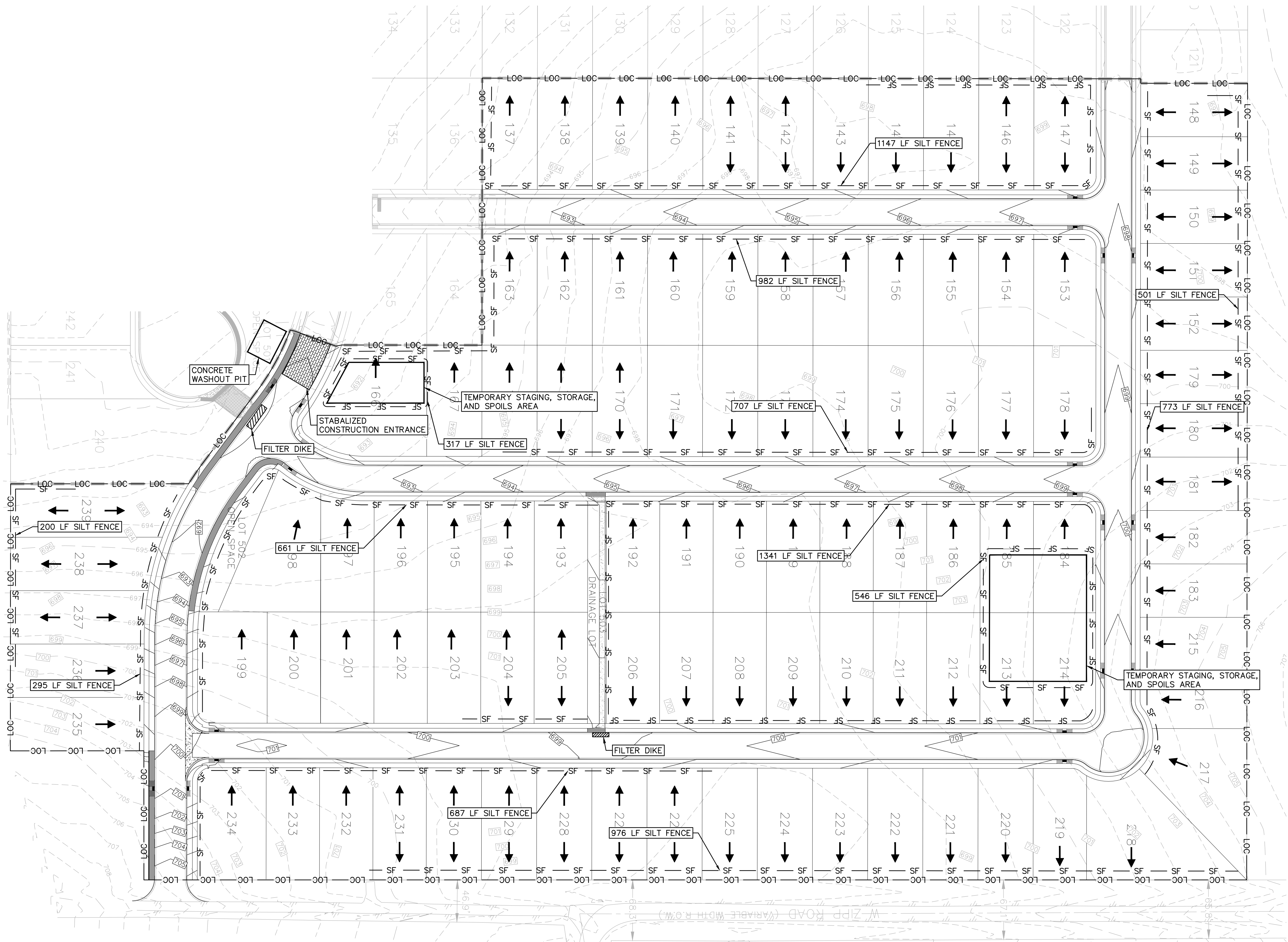
**SHEET
C1.1**

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- LEGEND**
- 700 — EXISTING CONTOURS
 - 700 — PROPOSED CONTOURS
 - B.L. — BUILDING SETBACK LINE
 - U.E. — UTILITY EASEMENT
 - D.E. — DRAINAGE EASEMENT
 - — DRAINAGE FLOW DIRECTION
 - SF — SILT FENCE
 - 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. 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.

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.

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.

EROSION CONTROL PLAN

NO.	REVISION DATE	REVISION DESCRIPTION

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

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C2.0

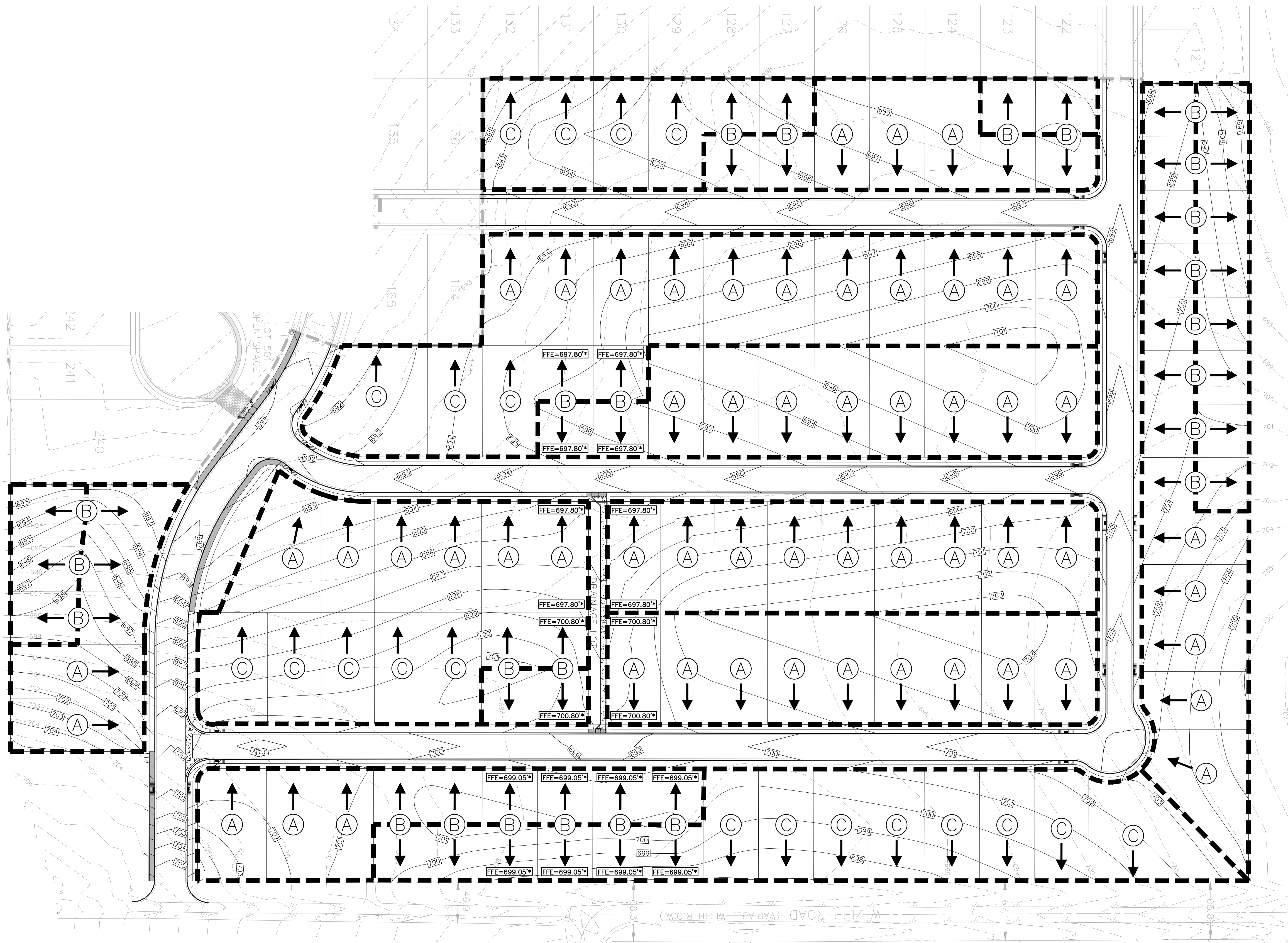
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THE SILOS
UNIT 3

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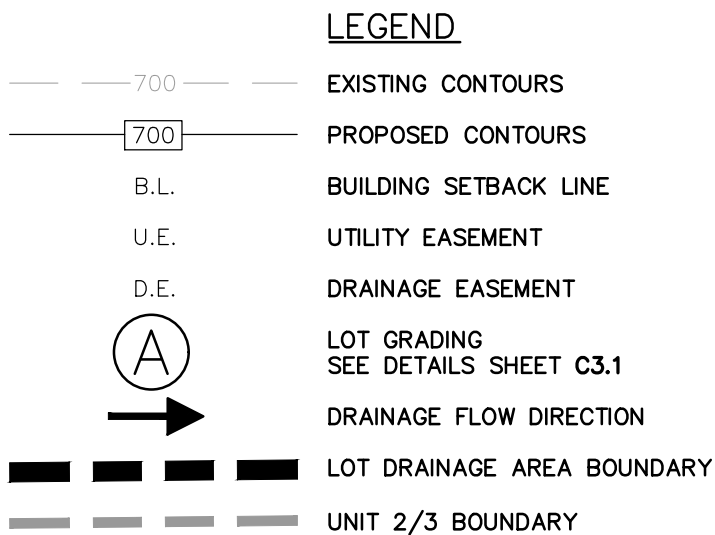
NOTES:

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 10 ON PLAT SHEET **C0.2**.
 - 2.B. HUD DETAILS SHOWN ON SHEET **C3.1**.
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.

*MINIMUM FINISH FLOOR ELEVATIONS ARE BASED ON FREEBOARD ABOVE WATER SURFACE ELEVATIONS OF NEARBY DRAINAGE IMPROVEMENTS. CONTRACTOR TO REFER TO HUD REQUIREMENTS TO ENSURE ALL OTHER FINISH FLOOR ELEVATION REQUIREMENTS ARE MET.

REFER TO THE COVER SHEET
FOR BENCHMARK INFORMATION.

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OVERALL LOT GRADING PLAN

NO.	REVISION DATE	REVISION DESCRIPTION

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C3.0

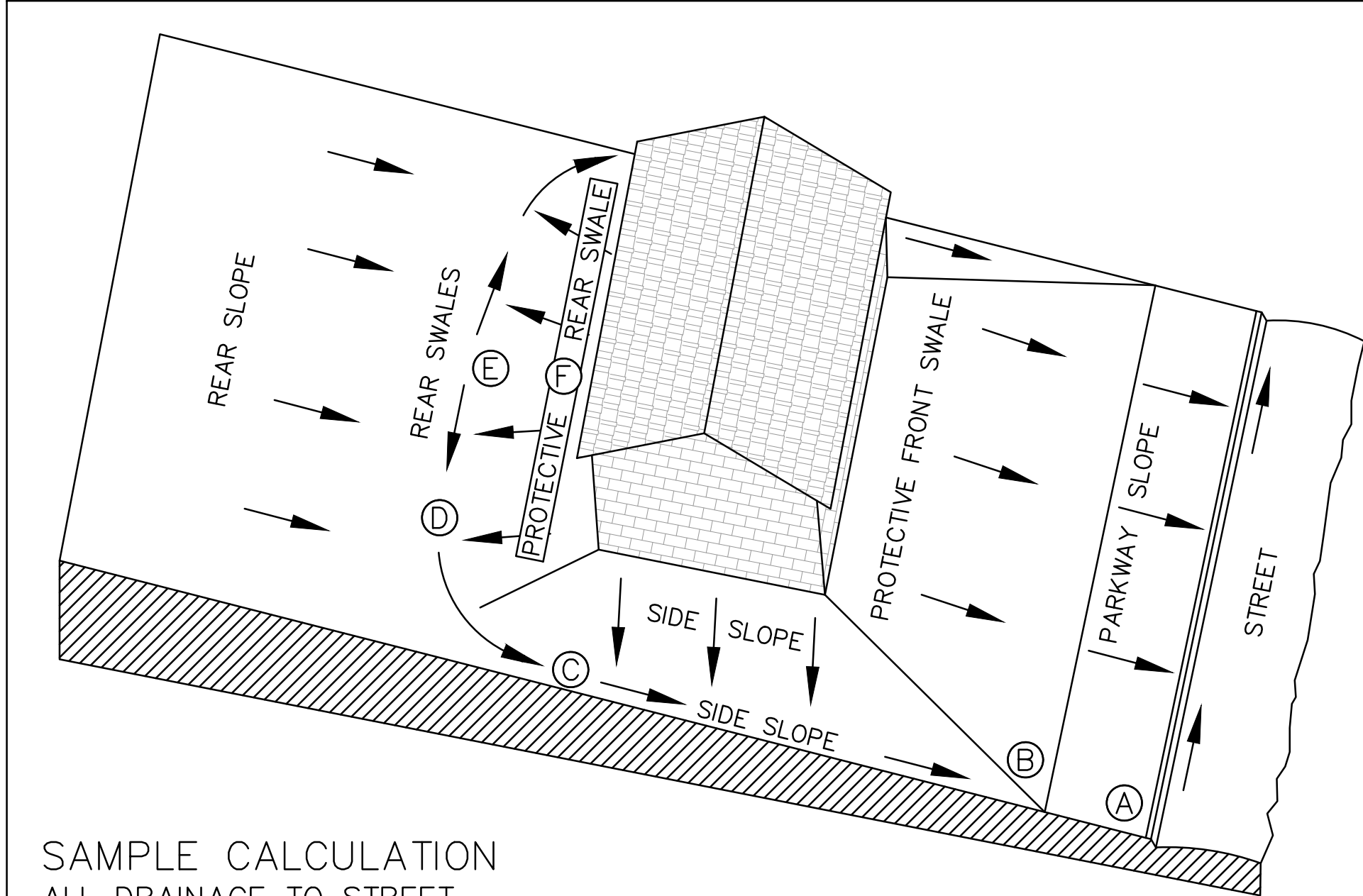
THE SILOS
UNIT 3

05/10/2018

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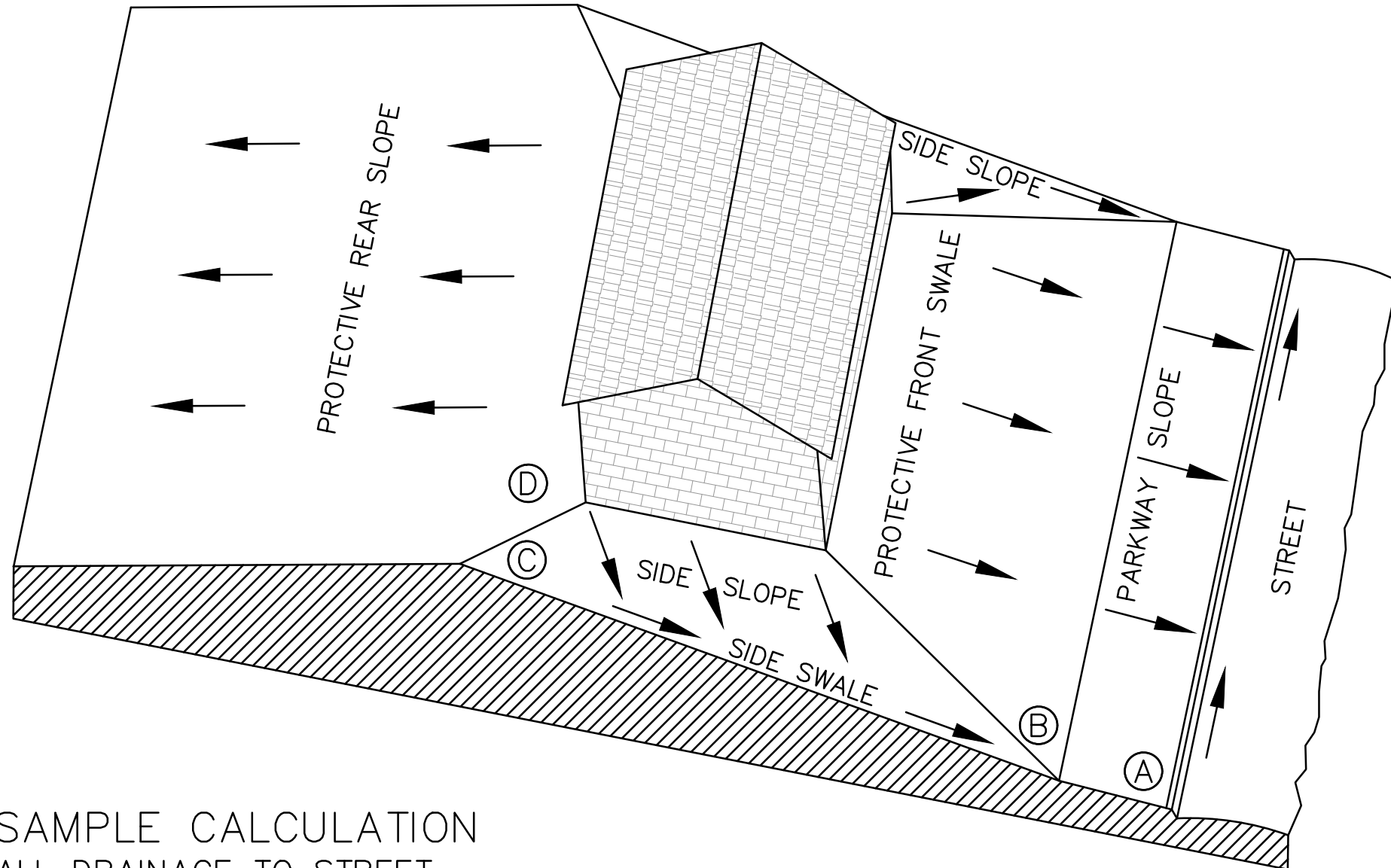
Drawing Name: N:_Projects\056 - Milestone Properties\056.013 - The Silo Unit_3\Cha\056.013_C3.1 - GRADING DETAILS.dwg User: malto May 14, 2018 - 9:36am



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						<u>CALCULATIONS FOR 2% SWALES</u> 15 x 0.25' = 3½" 85 x 0.25' = 21½" 16 x 0.25' = 4" 13 x 0.25' = 3½" 10 x 0.25' = 2½"
AB	PARKWAY SLOPE: 15' GRASS AND WALK AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')		
BC	SIDE SWALE: 85' GRASS AT 1/4"/FT. (2%)	21"	(1.8')	11"	(0.9')		
CD	SWALE TURN WITH 10' RADIUS:16' GRASS AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')		
DE**	REAR SWALE: 13' GRASS AT 1/4"/FT. (2%)	3"	(0.3')	2"	(0.2')		13 x 0.25' = 3½"
EF*	PROTECTIVE REAR SLOPE UP FROM HIGH POINT OF SWALES	3"	(0.3')	3"	(0.3')		10 x 0.25' = 2½"
SUB-TOTAL AF FROM CURB TOP TO GROUND AT REAL BLDG WALL		35"	(3.0')	20"	(1.7')		34½"
MINIMUM RISE FROM CURB TOP TO SLAB FLOOR: 35" + 8"		43"	(3.6')	28"	(2.3')		CALCULATIONS USE 0.25" PER FOOT GRADIENT FOR A 2% SWALE.
MINIMUM RISE FOR WOOD FLOOR USING 8" JOISTS: 35" + 9"		54"	(4.5')	39"	(3.3')		
* WHERE THERE IS A HIGH BANK NEARBY OR A LONG SLOPE TOWARD HOUSE, A MINIMUM 6" PROTECTIVE SLOPE IS REQUIRED.							
** LENGTH DE = [1/2(LOT WIDTH - (2x SWALE TURN RADIUS))] - [LOT WIDTH x (STREET GRADIENT x SWALE GRADIENT)]							

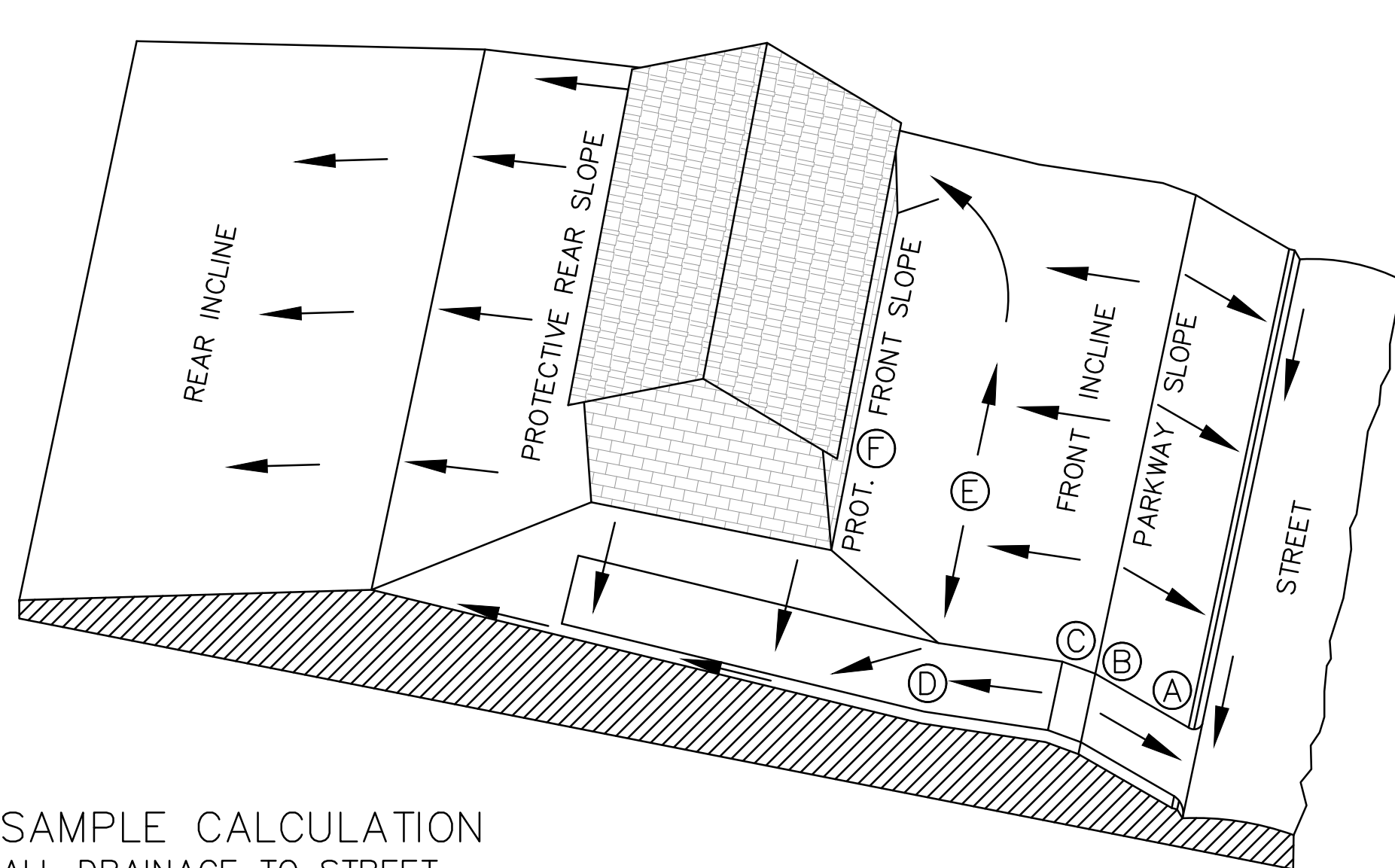
LOT TYPE A



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		<div>CALCULATIONS FOR 2% SWALES</div> <div>15 x 0.25' = 3½"</div> <div>85 x 0.25' = 21½"</div> <div>6 x 0.25' = 1½"</div> <div>26½"</div> <div>CALCULATIONS USE 0.25" PER FOOT GRADIENT FOR A 2% SWALE.</div>
A	CURB-TOP ON LOT LINE EXTENSION AT HIGH LOT CORNER					
AB	PARKWAY SLOPE: 15' GRASS AND WALK AT 1/4"/FT. (2%)	4"	(0.3')	2"	(0.2')	
BC	SIDE SWALE: 85' GRASS AT 1/4"/FT. (2%)	21"	(1.8')	11"	(0.9')	
CD*	PROTECTIVE SIDE SLOPE @ REAR BLDG. WALL EXTENSION	3"	(0.3')	3"	(0.3')	
SUB-TOTAL 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')	
* WHERE THERE IS A HIGH BANK NEARBY OR A LONG SLOPE TOWARD HOUSE, A MINIMUM 6" PROTECTIVE SLOPE IS REQUIRED.						

LOT TYPE B



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		CALCULATIONS FOR SWALES
A	CURB-TOP HIGH SIDE OF DRIVE NEAR LOW LOT CORNER					$15 \times 0.25' = 3\frac{3}{4}"$
\overline{AB}	PARKWAY SLOPE: 15' GRASS AND WALK AT $1/4"/\text{FT.}$ (2%)	4" (0.3')	2" (0.2')			$0 \times 0.25' = 0"$
\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')			$-11 \times 1.625' = -17\frac{3}{4}"$
\overline{CD}	DRIVEWAY DOWN-GRADE TO POINT 10 FEET OUT FROM FRONT OF BUILDING: $-11'$ AT $18"/\text{FT}$ (13.5%)	-18" (-1.5')	-18" (-1.5')			$16 \times 0.25' = 4"$
\overline{DE}	FRONT SWALE: 16' GRASS AT $1/4"/\text{FT.}$ (2%)	4" (0.3')	2" (0.2')			$10 \times 0.25' = 2\frac{1}{2}"$
\overline{EF}^*	PROT. FRONT SLOPE UP FROM HIGH POINT OF SWALES	3" (0.3')	3" (0.3')			$-7\frac{1}{2}"$
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')			
* WHERE THERE IS A HIGH BANK NEARBY OR A LONG SLOPE TOWARD HOUSE, A MINIMUM 6" PROTECTIVE SLOPE IS REQUIRED.						

LOT TYPE C

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 FHWA/HD 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 COMPACTION 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.

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05/10/2018

GRADING DETAILS

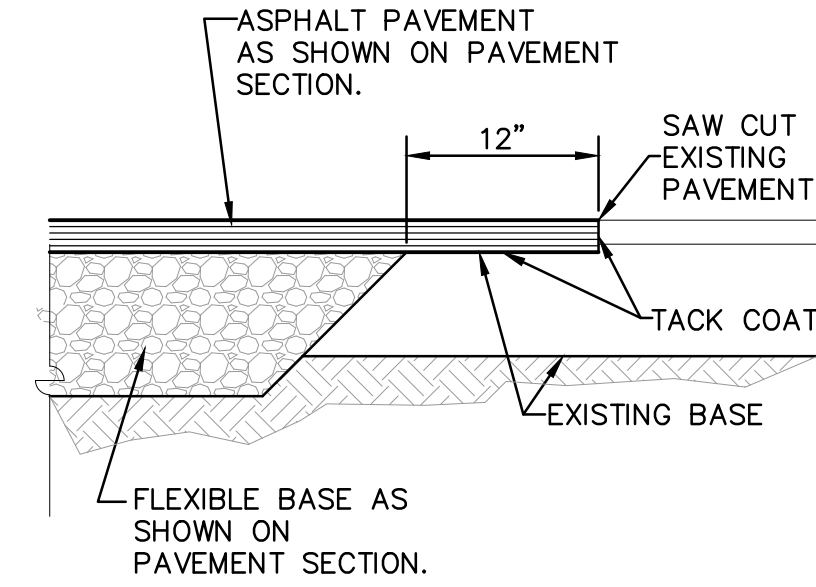
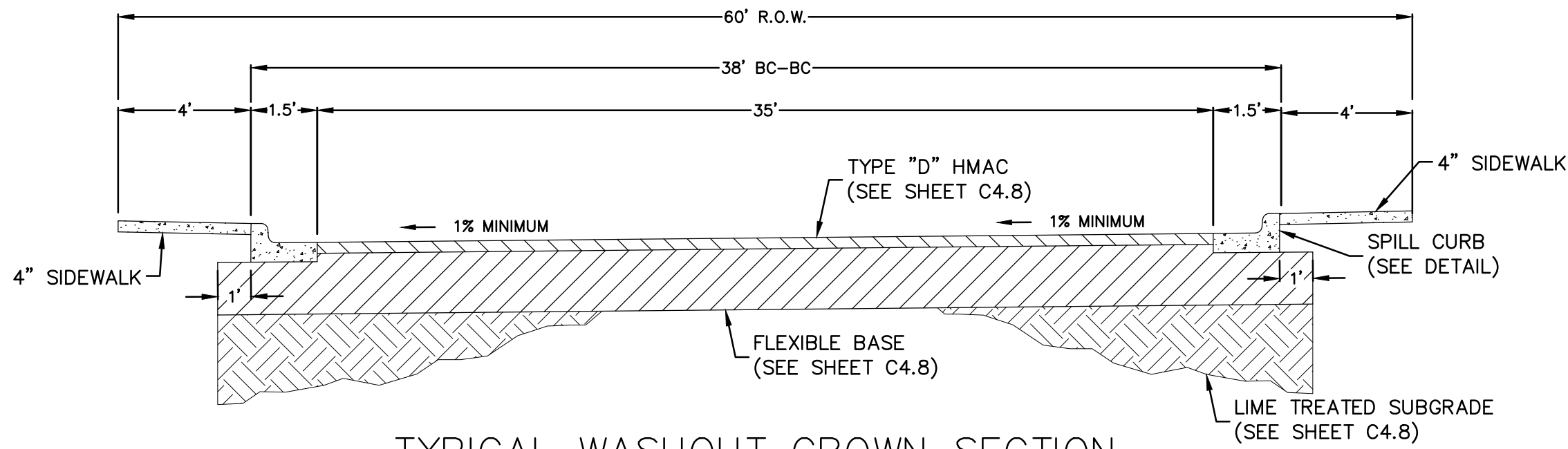
THE SILOS
UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE				

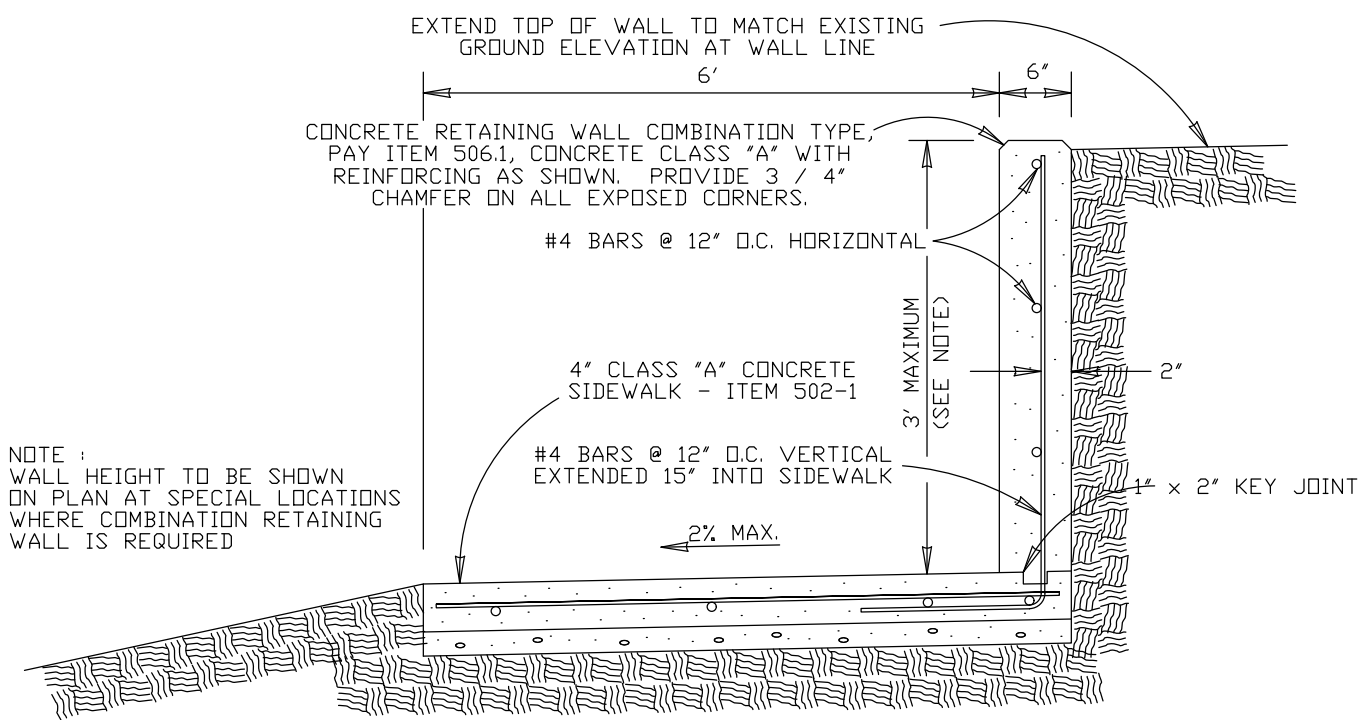
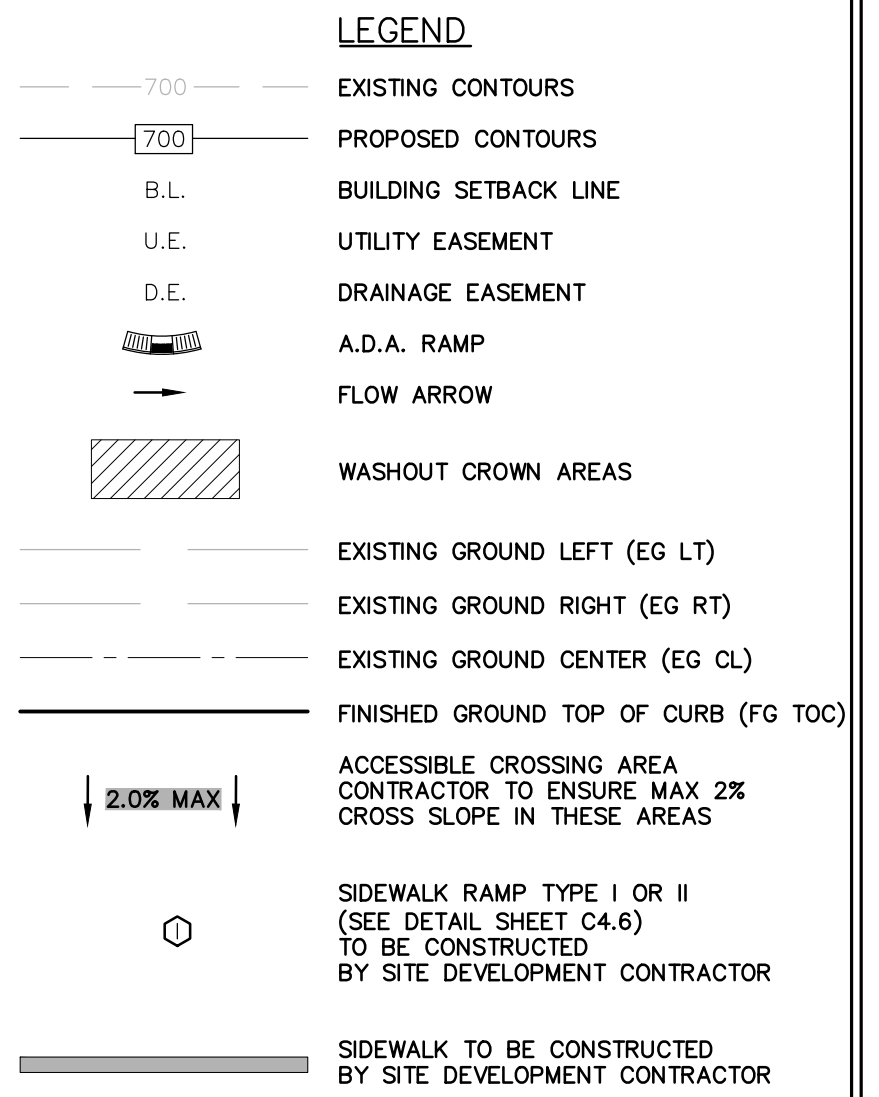
DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C3.1

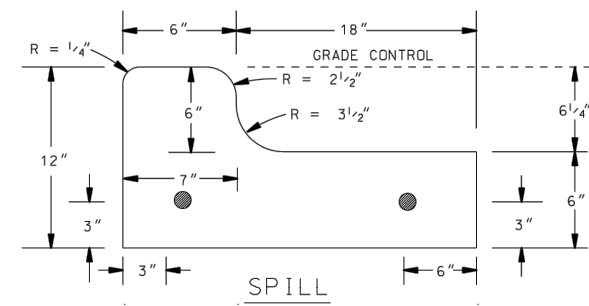
FLEXIBLE PAVEMENTS - COLLECTOR - 60' R.O.W.	
PAVEMENT MATERIAL	MECHANICALLY STABILIZED LAYER
TYPE "D" HMAC	2.5"
TYPE "C" BINDER COURSE	3.0"
TYPE "B" BASE COURSE	-
FLEXIBLE (GRANULAR) BASE	21"
COMPACTED SUBGRADE	-
FLEX BASE WITH GEOGRID BELOW	-
LIME TREATED SUBGRADE	8"
ACTUAL STRUCTURAL NUMBER	5.36



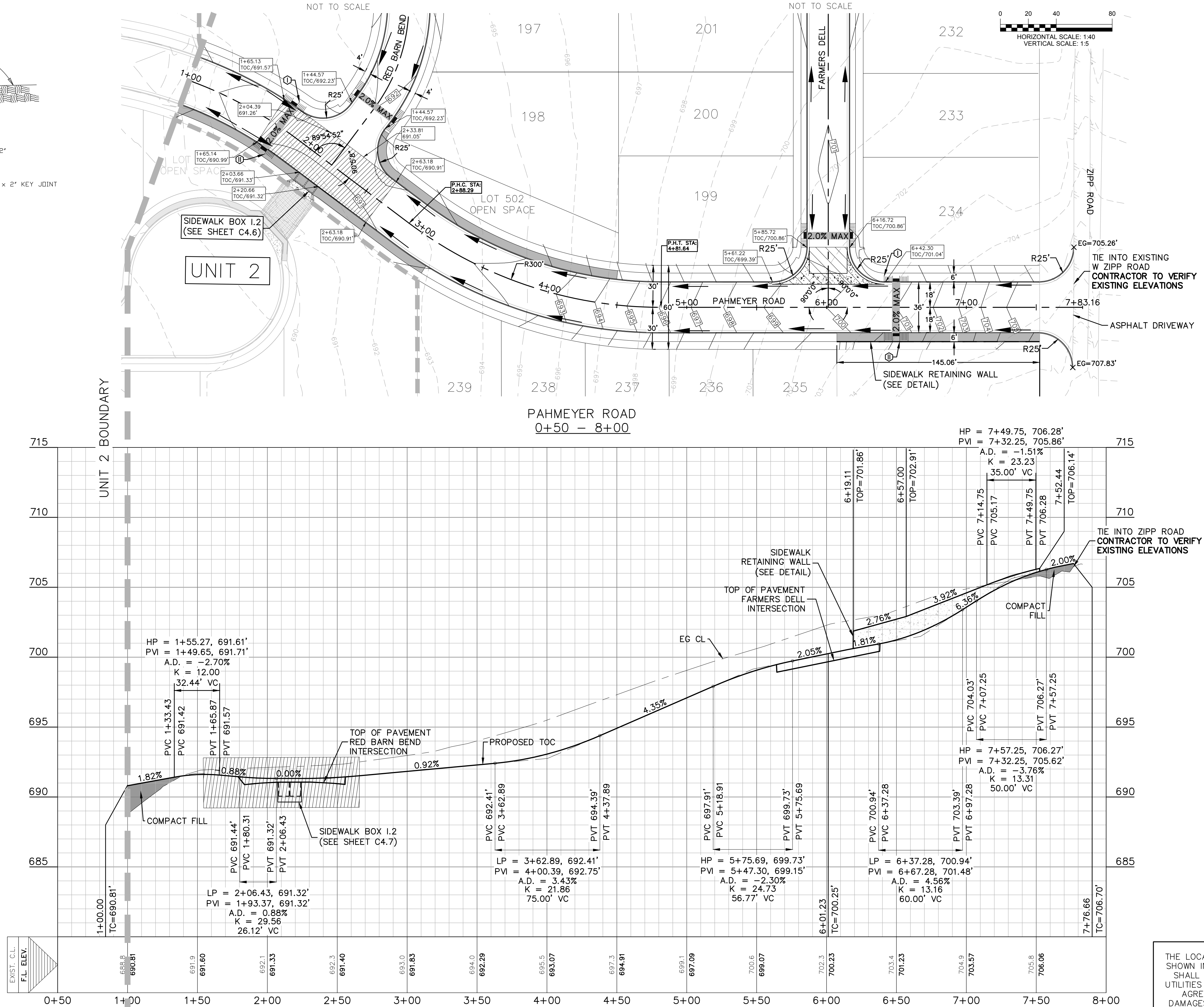
- NOTES
- STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF 25 MPH.
 - IN WASHOUT CROWN AREAS, THE CURB ON THE HIGH SIDE OF THE STREET SHOULD BE SPILL CURB AS DESIGNATED ON THE PLANS.
 - CONTRACTOR TO CONSTRUCT SIDEWALK RAMPS WITH STREETS.
 - CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM STREET STUD OUT ENDS SO THAT NO "PONDING" OF WATER OCCURS.



SIDEWALK RETAINING WALL
NOT TO SCALE



SPILL CURB DETAIL
NOT TO SCALE



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.

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05/10/2018

**PAHMEYER ROAD
PLAN & PROFILE**
THE SILOS
UNIT 3

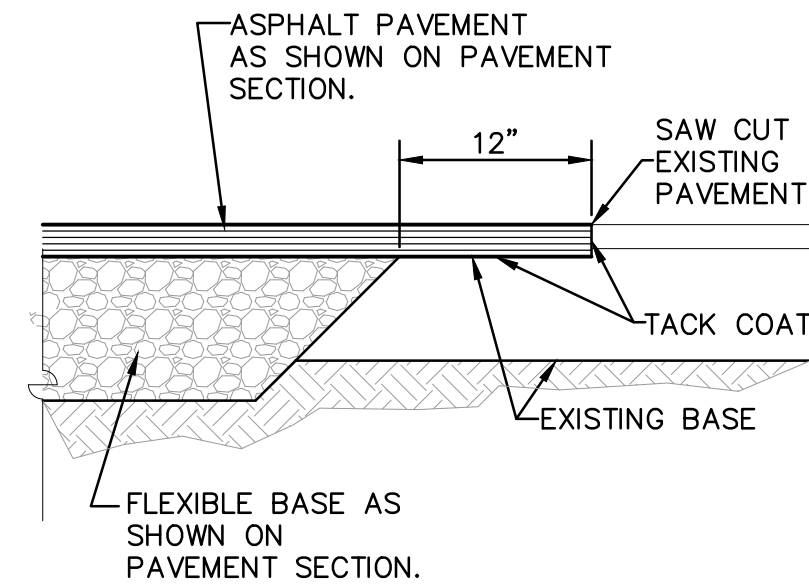
NO.	REVISION DESCRIPTION	DATE

DATE: **MAY 2018**
DRAWN BY: **MM**
DESIGNED BY: **AM/MM**
REVIEWED BY: **SWH/SCH**
HMT PROJECT NO.:
056.013

SHEET
C4.0

Drawing Name: N:_Projects\056 - Milestone Properties\056.013 - The Silos Unit 3\056.013_C4.1 - WHEATFIELD.dwg User: motta May 14, 2018 - 9:35am

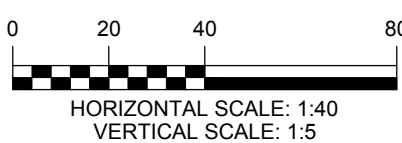
FLEXIBLE PAVEMENTS - LOCAL ROAD - 50' R.O.W.	
PAVEMENT MATERIAL	MECHANICALLY STABILIZED LAYER
TYPE "D" HMA	1.5"
TYPE "C" BINDER COURSE	2.5"
TYPE "B" BASE COURSE	-
FLEXIBLE (GRANULAR) BASE	17"
COMPACTED SUBGRADE	-
FLEX BASE WITH GEOGRID BELOW	-
LIME TREATED SUBGRADE	8"
ACTUAL STRUCTURAL NUMBER	4.14



NEW PAVEMENT TO EXISTING
NOT TO SCALE

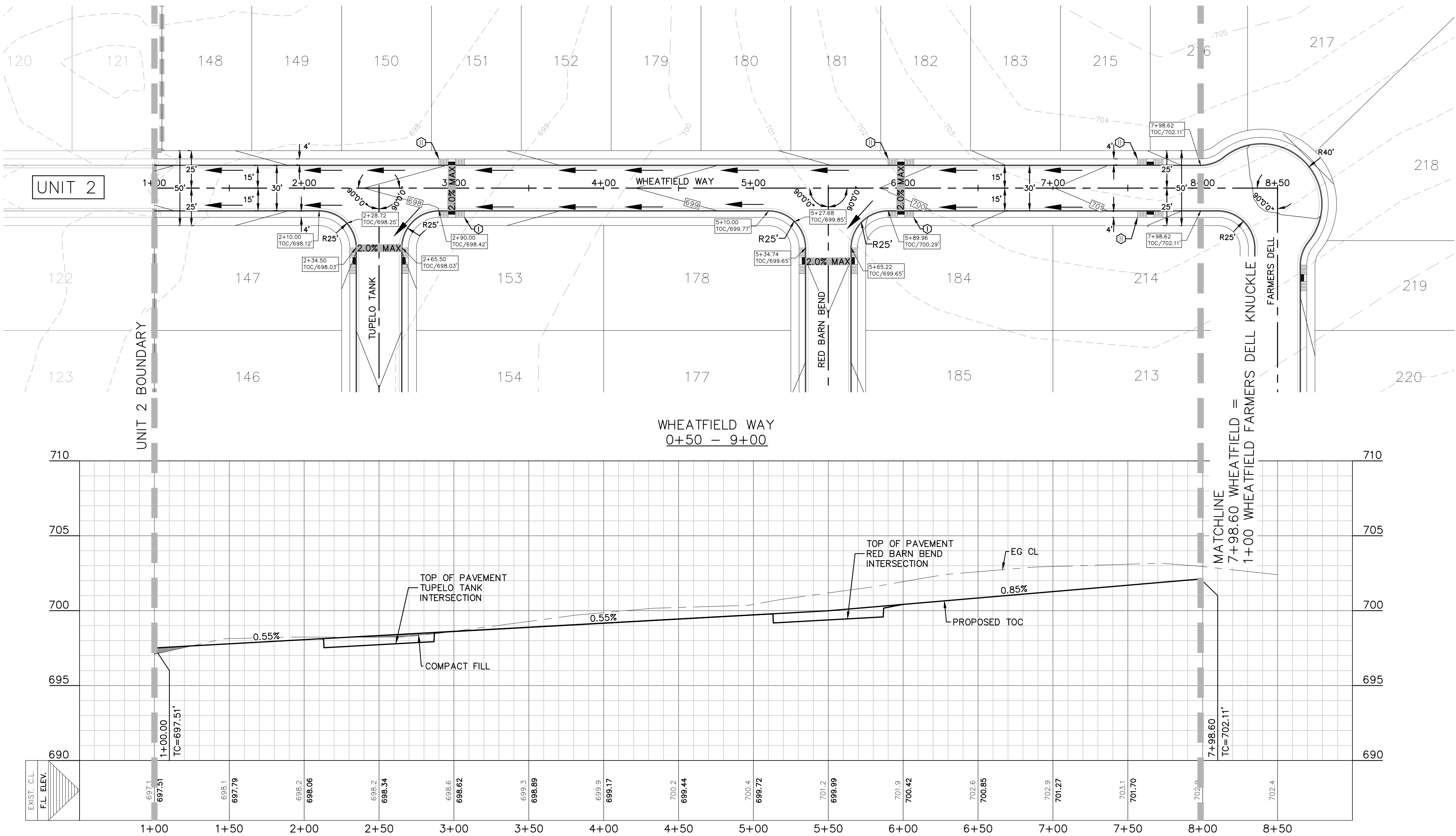
NOTES

- STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF 25 MPH.
- IN WASHOUT CROWN AREAS, THE CURB ON THE HIGH SIDE OF THE STREET SHOULD BE SPILL CURB AS DESIGNATED ON THE PLANS.
- CONTRACTOR TO CONSTRUCT SIDEWALK RAMPS WITH STREETS.
- CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM STREET STUB OUT ENDS SO THAT NO "PONDING" OF WATER OCCURS.



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- UTILITY EASEMENT
- DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CL)
- FINISHED GROUND TOP OF CURB (FG TOC)
- ACCESSIBLE CROSSING AREA
CONTRACTOR TO ENSURE MAX 2%
CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE I OR II
(SEE DETAIL SHEET C4.6)
TO BE CONSTRUCTED
BY SITE DEVELOPMENT CONTRACTOR
- SIDEWALK TO BE CONSTRUCTED
BY SITE DEVELOPMENT CONTRACTOR



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WHEATFIELD WAY
PLAN & PROFILE
THE SILOS
UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C4.1

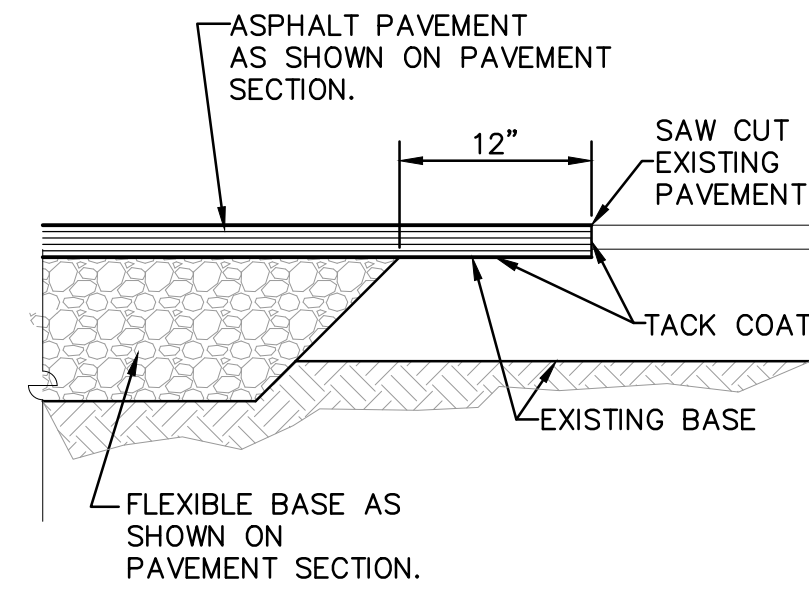
410 N. SEGUN AVE.
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TBPB FIRM F-10961
TBPB FIRM 10153600

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ENGINEERING & SURVEYING

05/10/2018

Drawing Name: N:_Projects\056 - Milestone Properties\056.013 - The Silo Unit 3\056.013_C4.2 - TUPELO TANK.dwg User: matia May 14, 2018 - 9:36am

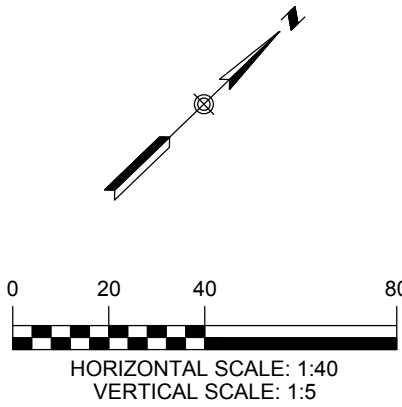
FLEXIBLE PAVEMENTS - LOCAL ROAD - 50' R.O.W.	
PAVEMENT MATERIAL	MECHANICALLY STABILIZED LAYER
TYPE "D" HMAC	1.5"
TYPE "C" BINDER COURSE	2.5"
TYPE "B" BASE COURSE	-
FLEXIBLE (GRANULAR) BASE	17"
COMPACTED SUBGRADE	-
FLEX BASE WITH GEOGRID BELOW	-
LIME TREATED SUBGRADE	8"
ACTUAL STRUCTURAL NUMBER	4.14



NEW PAVEMENT TO EXISTING
NOT TO SCALE

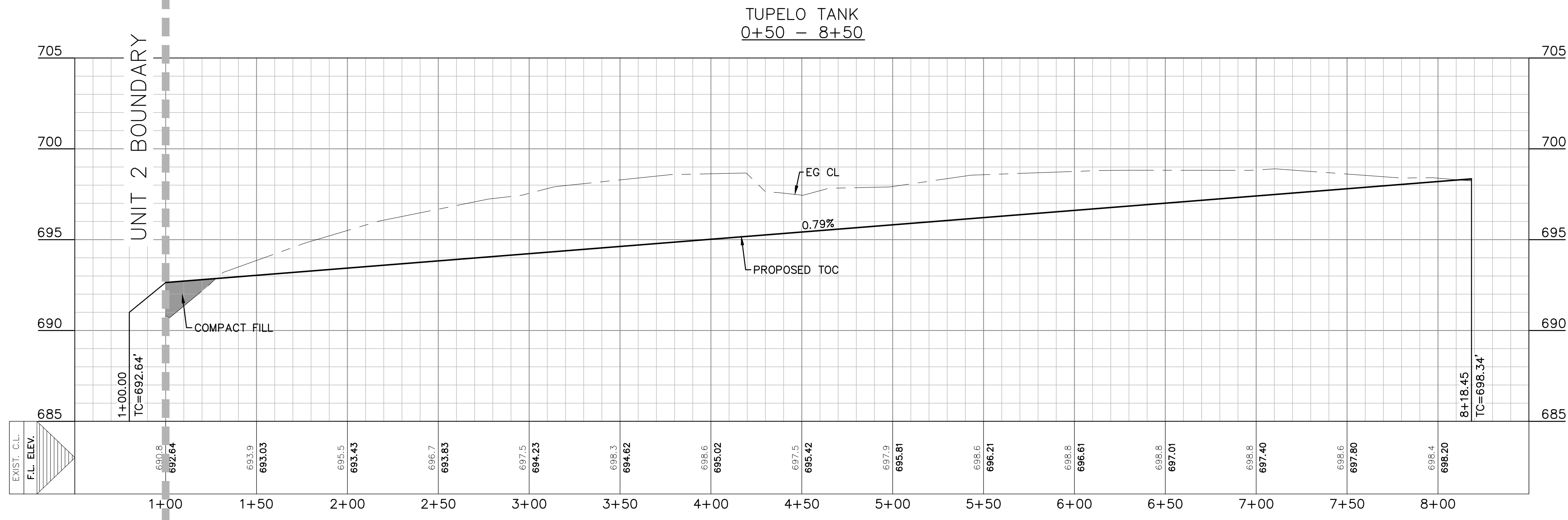
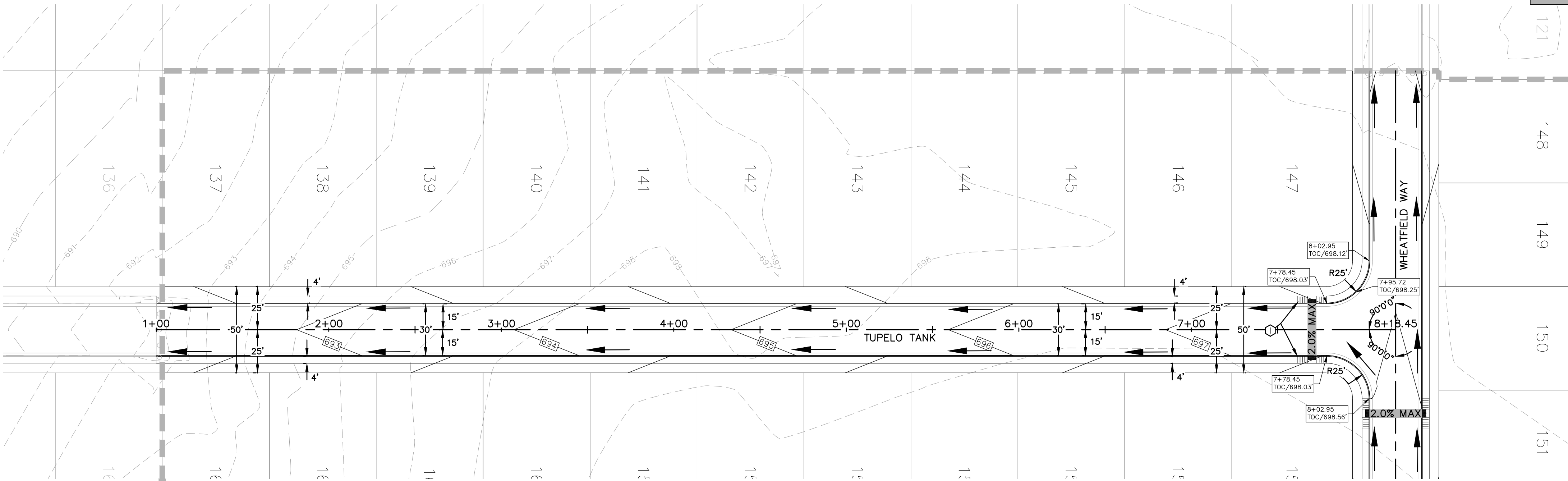
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LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- UTILITY EASEMENT
- DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CL)
- FINISHED GROUND TOP OF CURB (FG TOC)
- ACCESSIBLE CROSSING AREA
CONTRACTOR TO ENSURE MAX 2%
CROSS SLOPE IN THESE AREAS
- 2.0% MAX
- SIDEWALK RAMP TYPE I OR II
(SEE DETAIL SHEET C4.6)
TO BE CONSTRUCTED
BY SITE DEVELOPMENT CONTRACTOR
- SIDEWALK TO BE CONSTRUCTED
BY SITE DEVELOPMENT CONTRACTOR



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TUPELO TANK
PLAN & PROFILE
THE SILOS
UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C4.2

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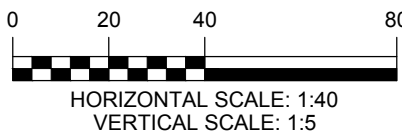
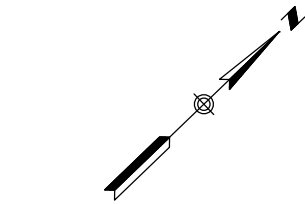
05/10/2018

Drawing Name: N:_Projects\056 - Milestone Properties\056.013 - The Silos Unit 3\056.013_C4.3 - RED BARN BEND.dwg User: matia May 14, 2018 - 9:37am

FLEXIBLE PAVEMENTS - LOCAL ROAD - 50' R.O.W.	
PAVEMENT MATERIAL	MECHANICALLY STABILIZED LAYER
TYPE "D" HMAC	1.5"
TYPE "C" BINDER COURSE	2.5"
TYPE "B" BASE COURSE	-
FLEXIBLE (GRANULAR) BASE	17"
COMPACTED SUBGRADE	-
FLEX BASE WITH GEOGRID BELOW	-
LIME TREATED SUBGRADE	8"
ACTUAL STRUCTURAL NUMBER	4.14

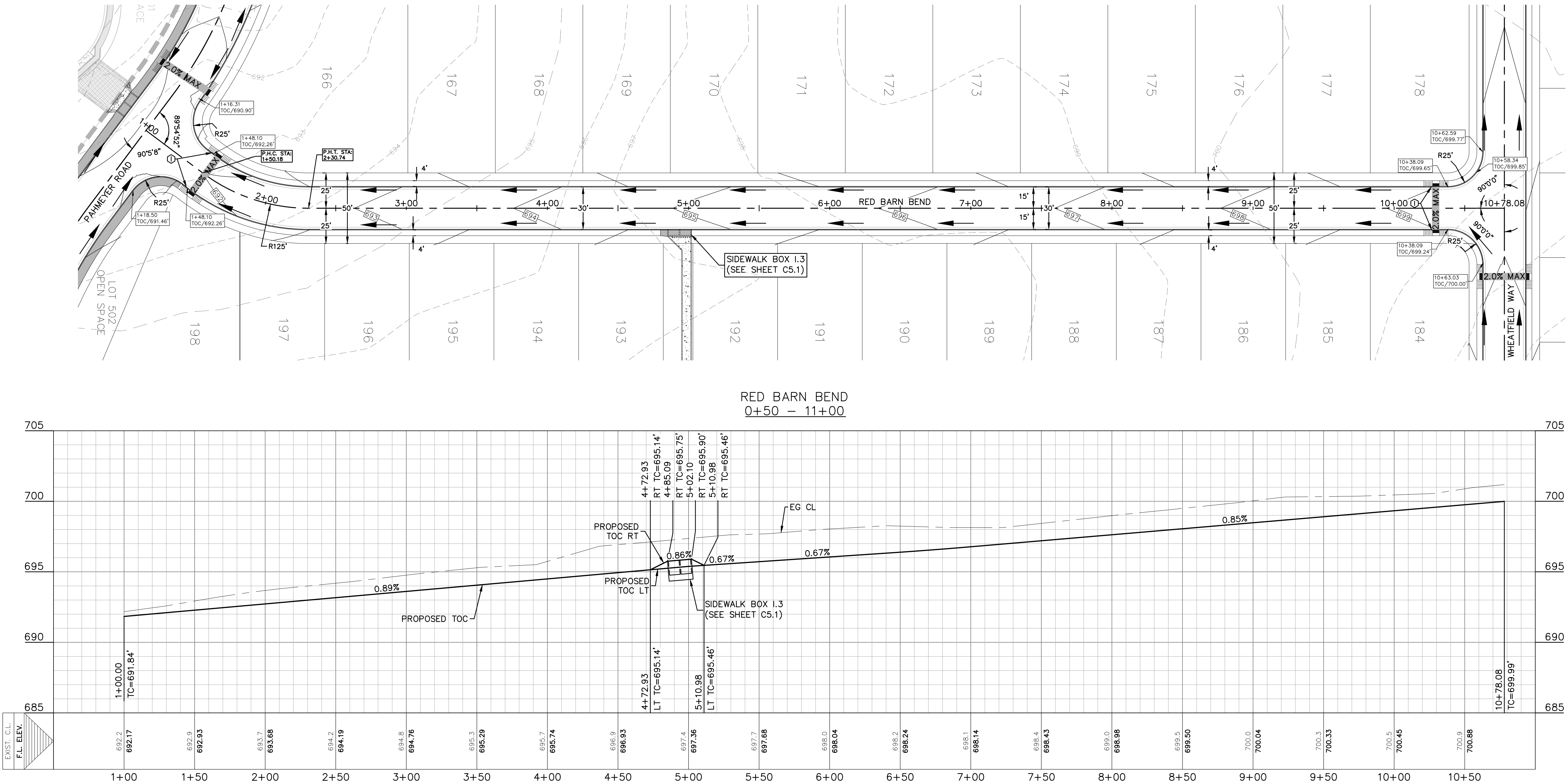
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LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- UTILITY EASEMENT
- DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CL)
- FINISHED GROUND TOP OF CURB (FG TOC)
- ACCESSIBLE CROSSING AREA
CONTRACTOR TO ENSURE MAX 2%
CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE I OR II
(SEE DETAIL SHEET C4.6)
TO BE CONSTRUCTED
BY SITE DEVELOPMENT CONTRACTOR
- SIDEWALK TO BE CONSTRUCTED
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RED BARN BEND
PLAN & PROFILE
THE SILOS
UNIT 3

NO.	REVISION	DATE

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

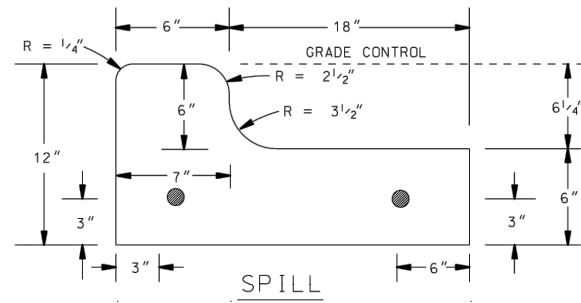
SHEET
C4.3

410 N. SEGUN AVE.
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HMTNB.COM
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TBPE FIRM F-10961
TBPLS FIRM 10153600

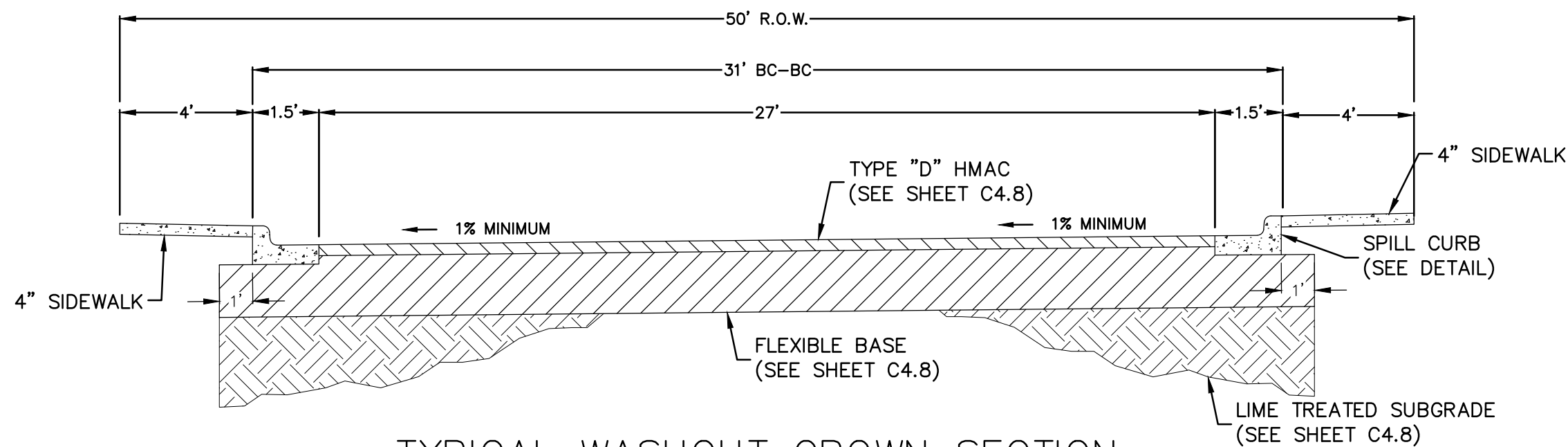


05/10/2018

FLEXIBLE PAVEMENTS - LOCAL ROAD - 50' R.O.W.	
PAVEMENT MATERIAL	MECHANICALLY STABILIZED LAYER
TYPE "D" HMAC	1.5"
TYPE "C" BINDER COURSE	2.5"
TYPE "B" BASE COURSE	-
FLEXIBLE (GRANULAR) BASE	17"
COMPACTED SUBGRADE	-
FLEX BASE WITH GEOGRID BELOW	-
LIME TREATED SUBGRADE	8"
ACTUAL STRUCTURAL NUMBER	4.14



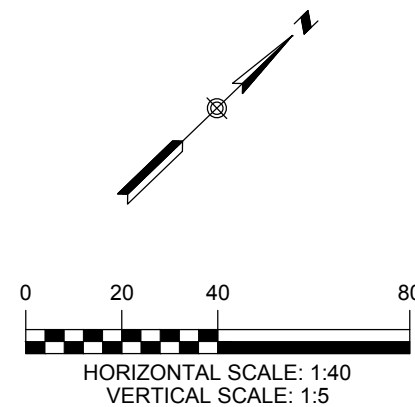
SPILL CURB DETAIL
NOT TO SCALE



TYPICAL WASHOUT CROWN SECTION
NOT TO SCALE

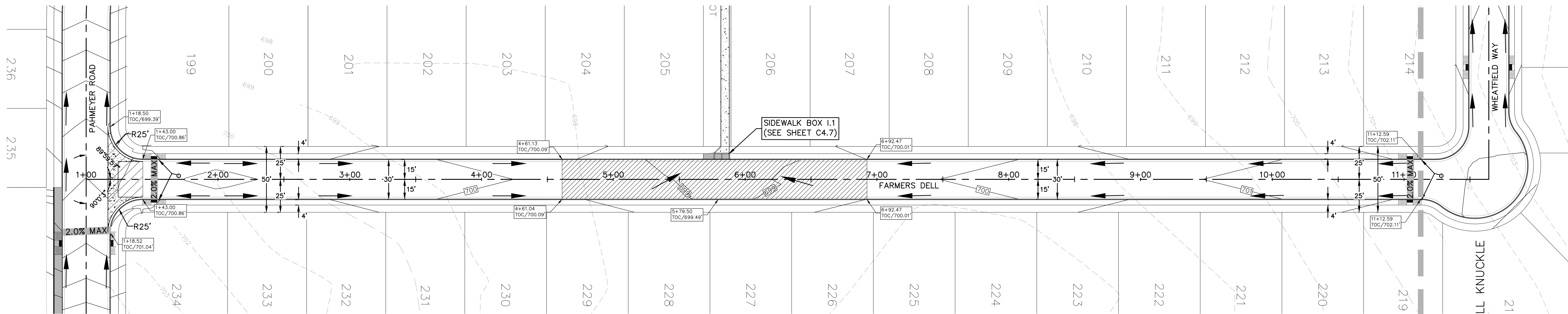
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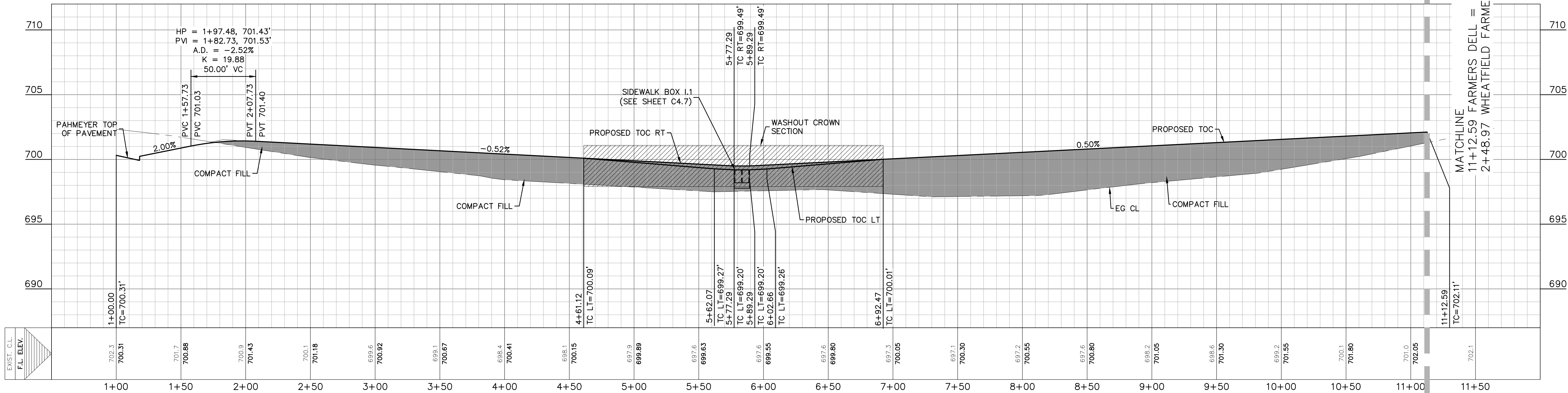


LEGEND

- 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
- EXISTING GROUND LEFT (EG LT)
- EXISTING GROUND RIGHT (EG RT)
- EXISTING GROUND CENTER (EG CL)
- FINISHED GROUND TOP OF CURB (FG TOC)
- ACCESSIBLE CROSSING AREA CONTRACTOR TO ENSURE MAX 2% CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE I OR II (SEE DETAIL SHEET C4.6) TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR



FARMERS DELL
0+50 - 12+00



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05/10/2018

FARMERS DELL PLAN & PROFILE THE SILOS UNIT 3

NO.	REVISION DATE	REVISION DESCRIPTION

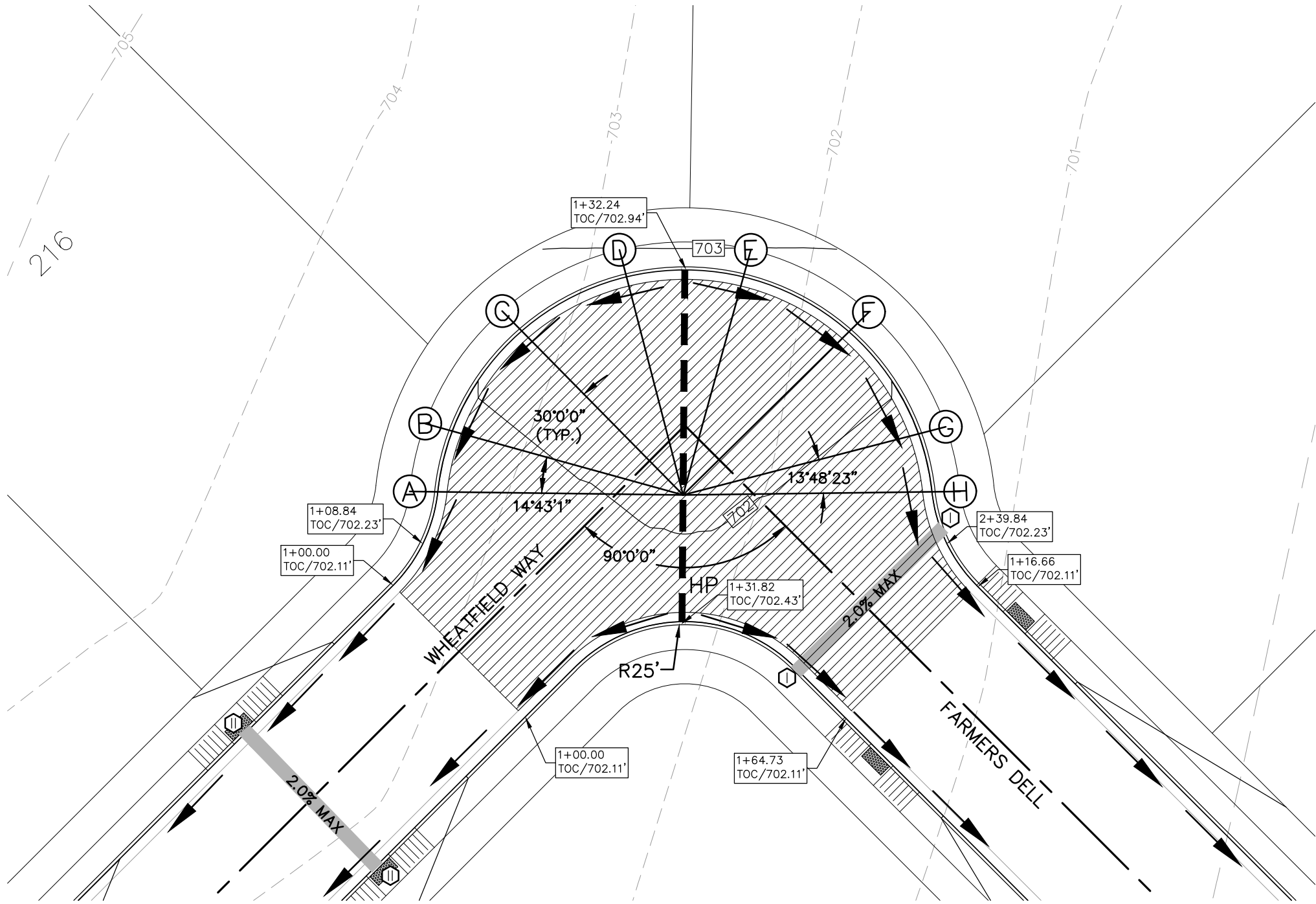
DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C4.4

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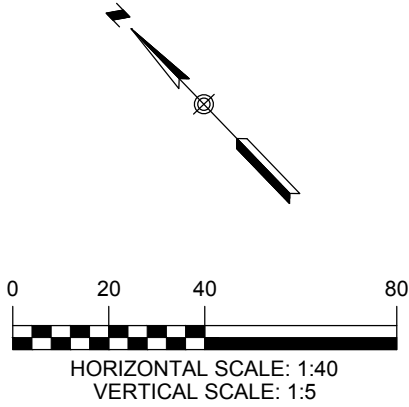
HMT
ENGINEERING & SURVEYING

FLEXIBLE PAVEMENTS - LOCAL ROAD - 50' R.O.W.	
PAVEMENT MATERIAL	MECHANICALLY STABILIZED LAYER
TYPE "D" HMAC	1.5"
TYPE "C" BINDER COURSE	2.5"
TYPE "B" BASE COURSE	-
FLEXIBLE (GRANULAR) BASE	17"
COMPACTED SUBGRADE	-
FLEX BASE WITH GEOGRID BELOW	-
LIME TREATED SUBGRADE	8"
ACTUAL STRUCTURAL NUMBER	4.14



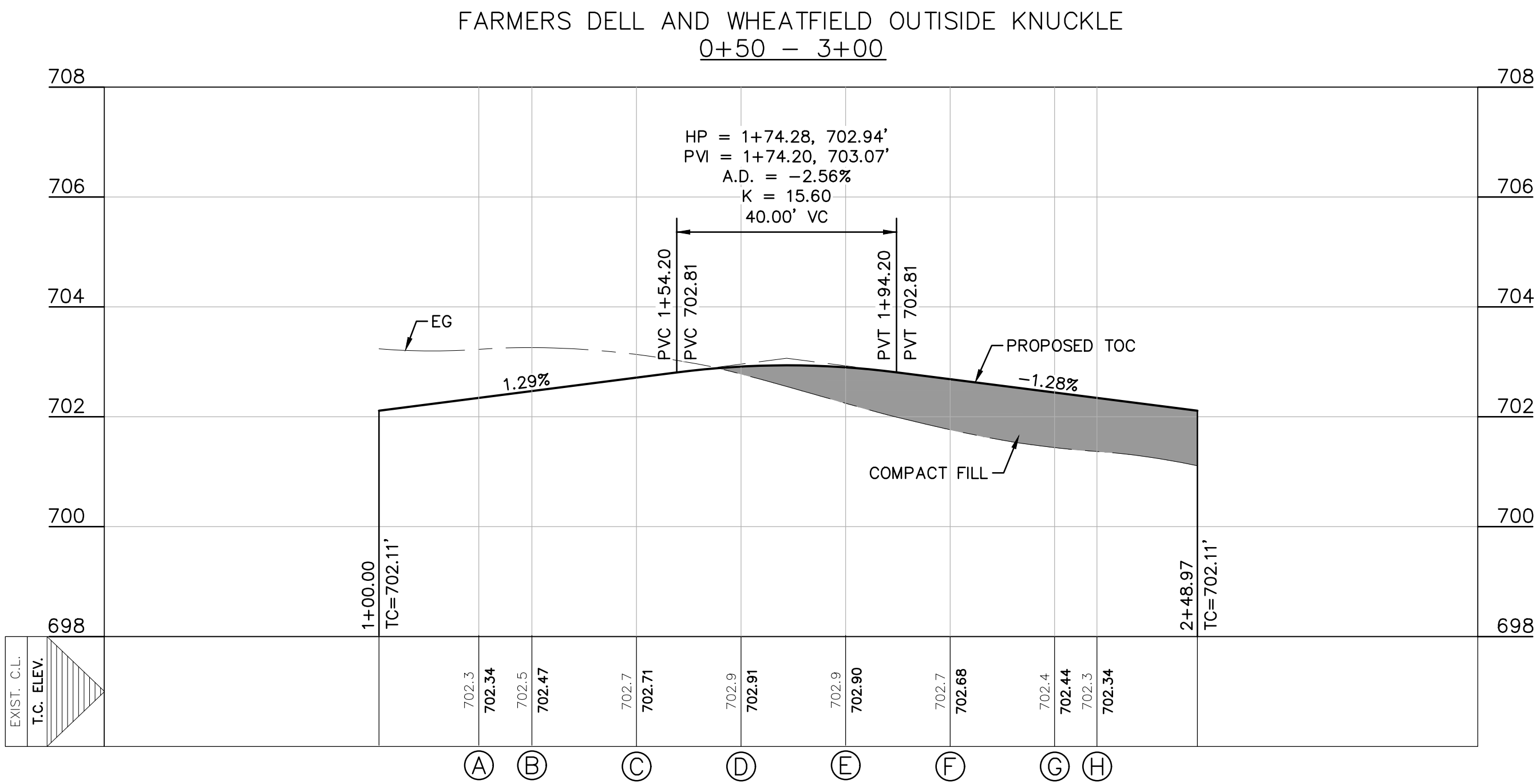
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LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- A.D.A. RAMP
- FLOW ARROW
- WASHOUT CROWN AREAS
- EXISTING GROUND LEFT (EG LT)
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- EXISTING GROUND CENTER (EG CL)
- FINISHED GROUND TOP OF CURB (FG TOC)
- ACCESSIBLE CROSSING AREA
CONTRACTOR TO ENSURE MAX 2%
CROSS SLOPE IN THESE AREAS
- SIDEWALK RAMP TYPE I OR II
(SEE DETAIL SHEET C4.6)
TO BE CONSTRUCTED
BY SITE DEVELOPMENT CONTRACTOR
- SIDEWALK TO BE CONSTRUCTED
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WHEATFIELD FARMERS DELL
KNUCKLE PLAN & PROFILE
THE SILOS
UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE

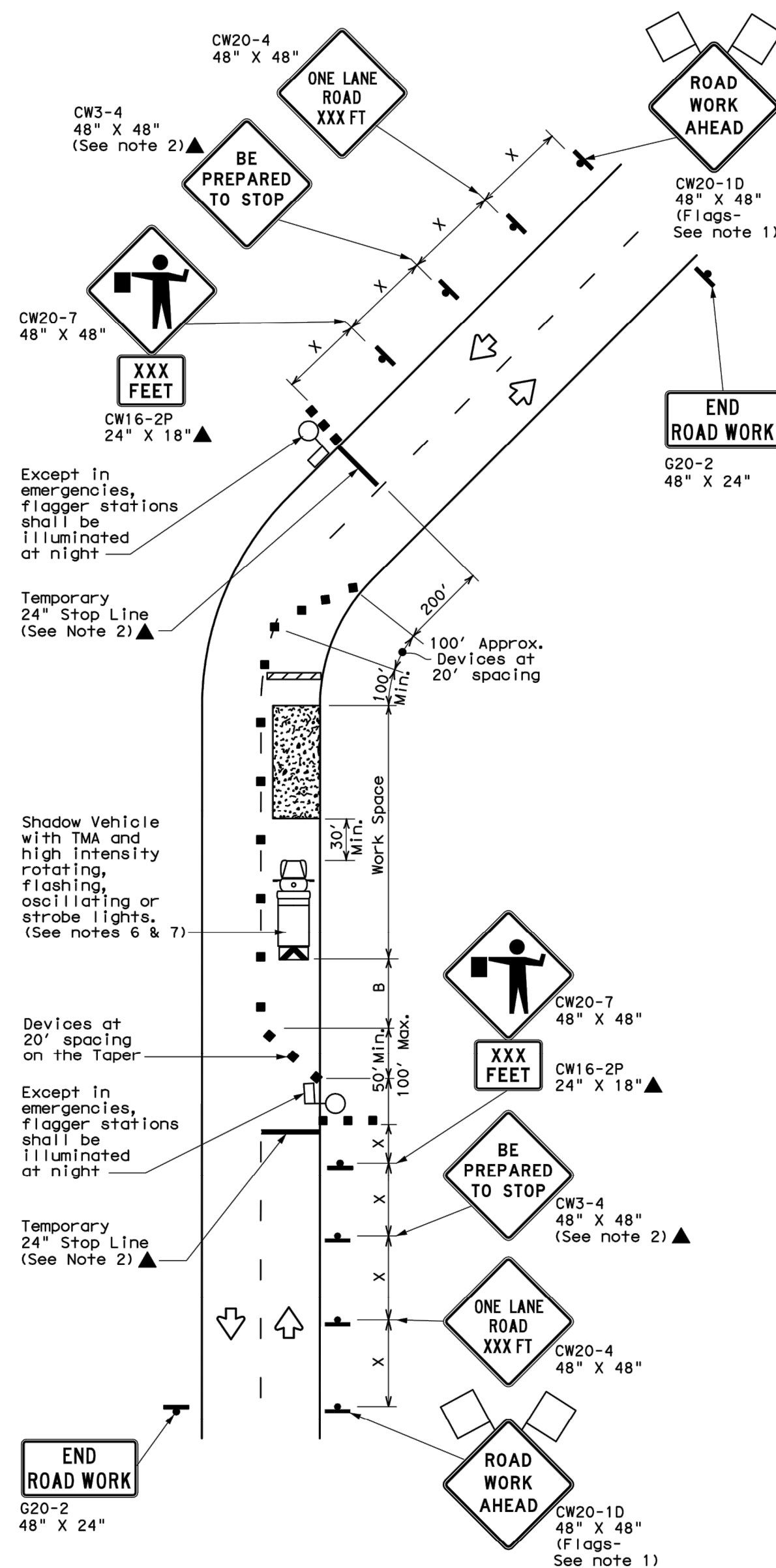
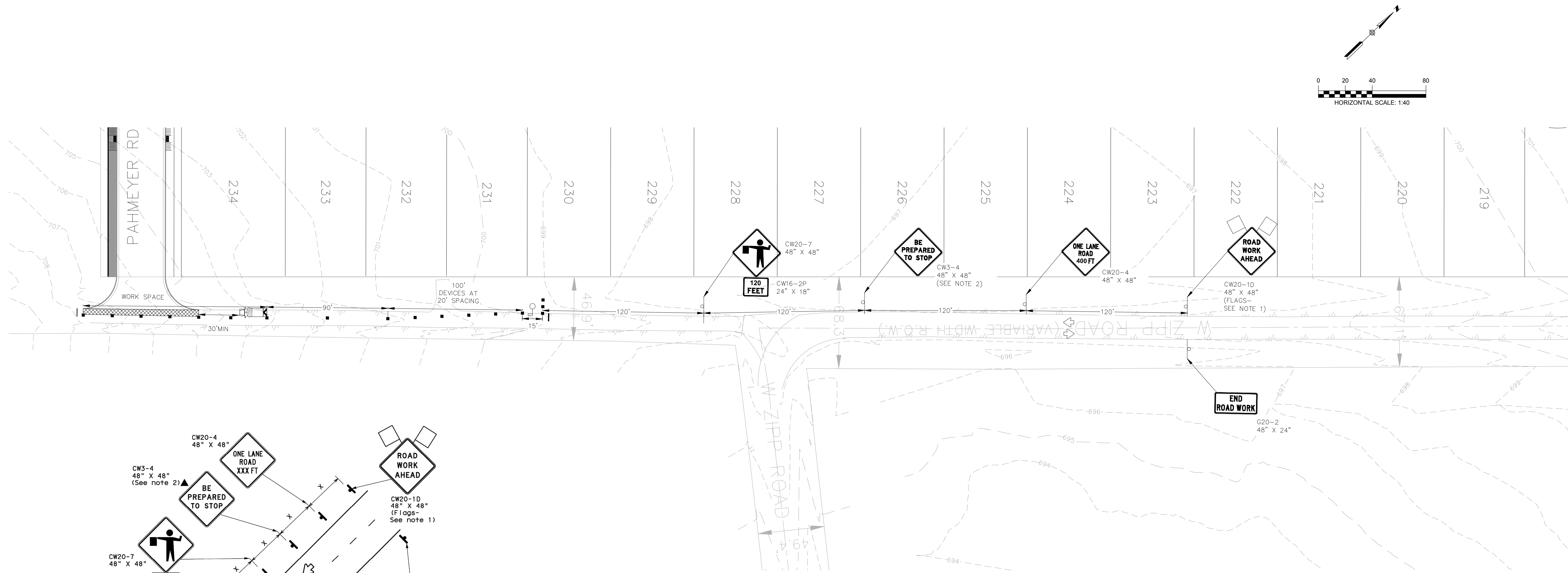
DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C4.5











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NEW BRAUNFELS, TX 78130
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TBPB FIRM 10153600



05/10/2018



TCP (2-2b)
2-LANE ROADWAY WITHOUT PAVED SHOULDERS
ONE LANE TWO-WAY
CONTROL WITH FLAGGERS

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed X	Formula	Minimum Desirable Taper Lengths X X			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	L = $\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L = WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

* Conventional Roads Only
 **Taper lengths have been rounded off.
 L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
4. Flaggers should use two-way radios or other methods of communication to control traffic.
5. Length of work space should be based on the ability of flaggers to communicate.
6. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
7. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-2b)

10. Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
11. If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See table above).
12. Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

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SIGNAGE NOTES

INSTALLATION

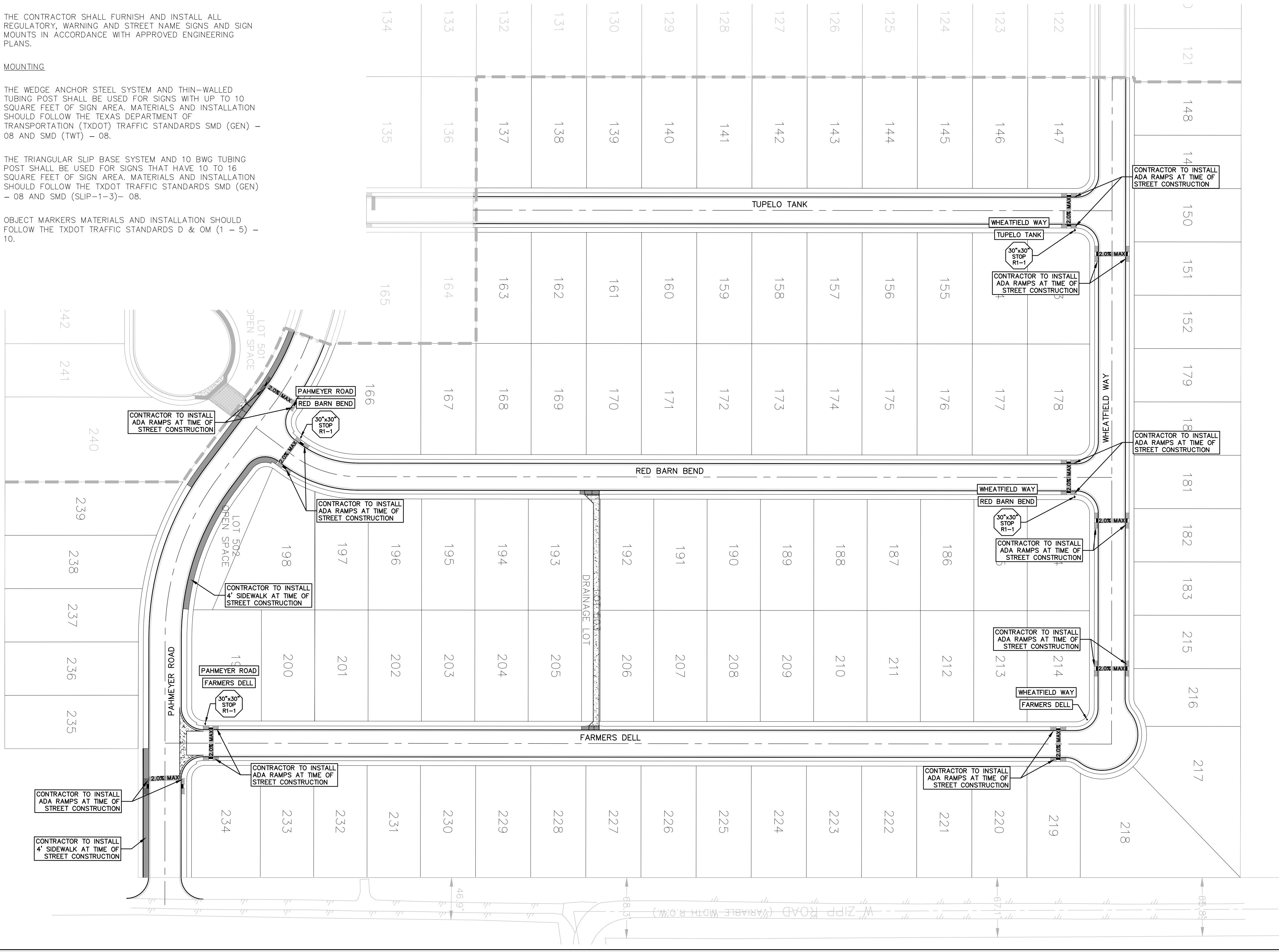
THE CONTRACTOR SHALL FURNISH AND INSTALL ALL REGULATORY, WARNING AND STREET NAME SIGNS AND SIGN MOUNTS IN ACCORDANCE WITH APPROVED ENGINEERING PLANS.

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.



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- SIDEWALK RAMP TYPE I OR II (SEE DETAIL SHEET C4.6) TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR
- SIDEWALK TO BE CONSTRUCTED BY SITE DEVELOPMENT CONTRACTOR

NOTES:

- STREETS WERE DESIGNED TO POSTED SPEED LIMIT OF 25 MPH.
- ALL A.D.A. RAMPS ARE TO BE CONSTRUCTED BY THE SITE DEVELOPMENT CONTRACTOR AT THE TIME OF STREET CONSTRUCTION.

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SINGAGE PLAN

THE SILOS UNIT 3

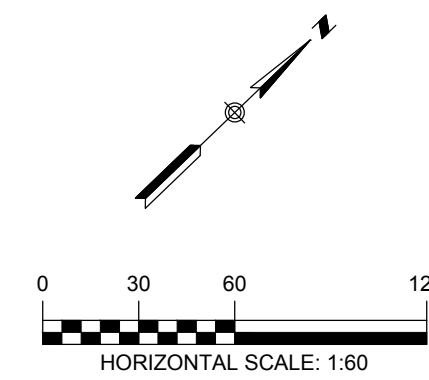
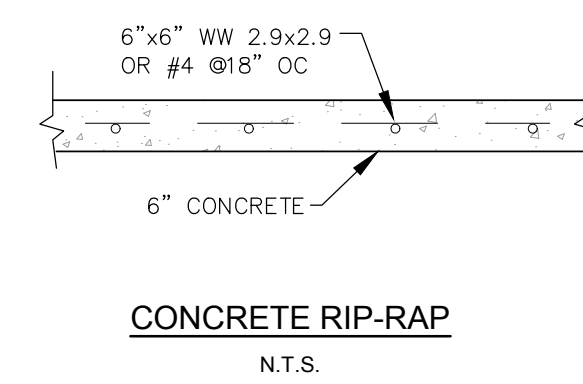
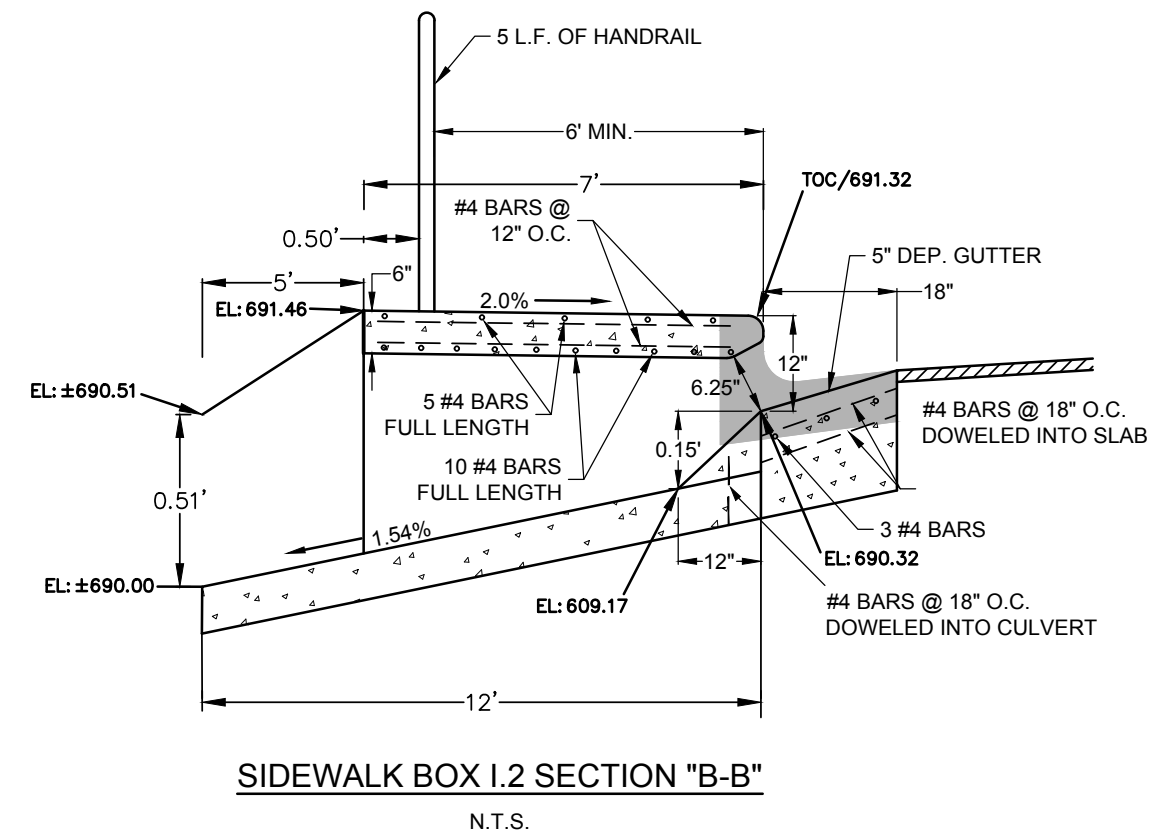
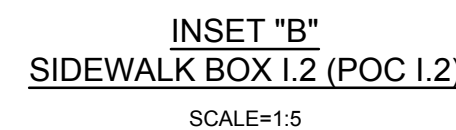
NO.	REVISION	DESCRIPTION	DATE







DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET C4.7

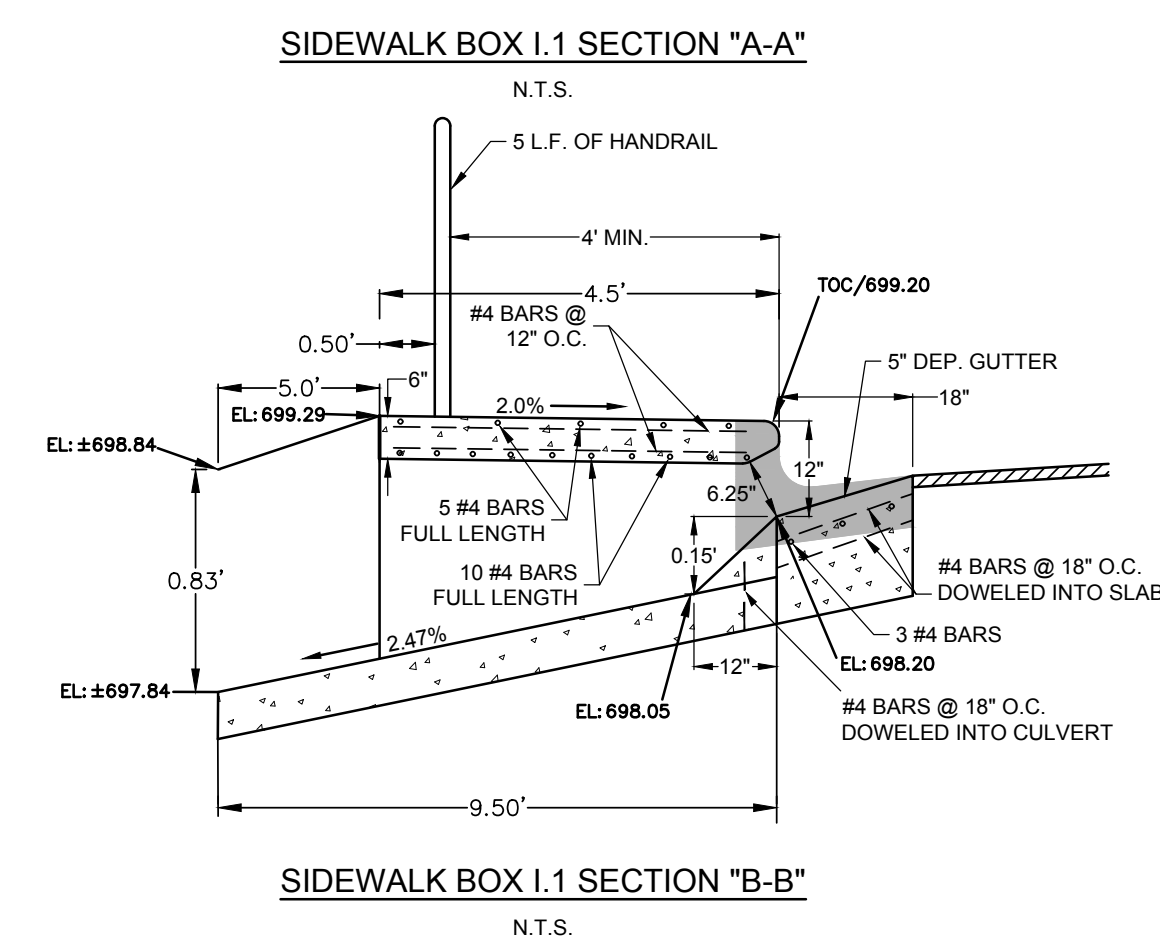
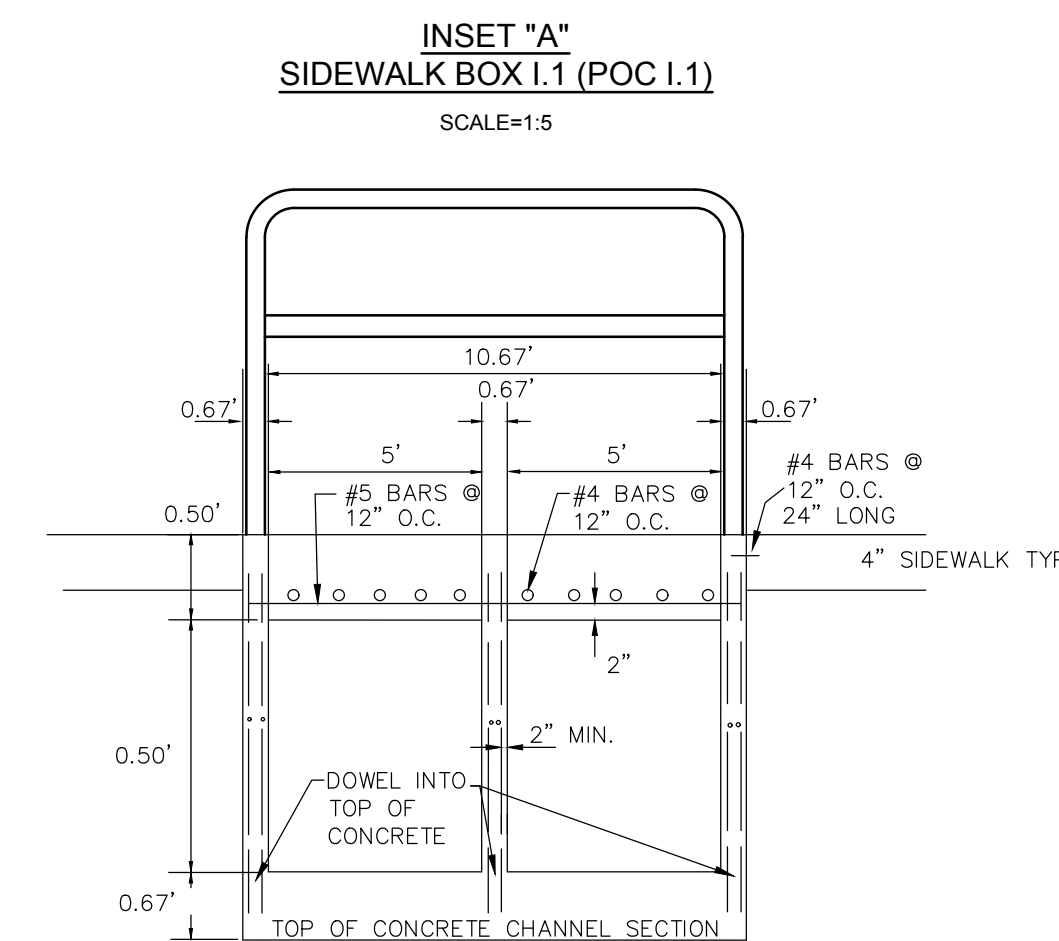
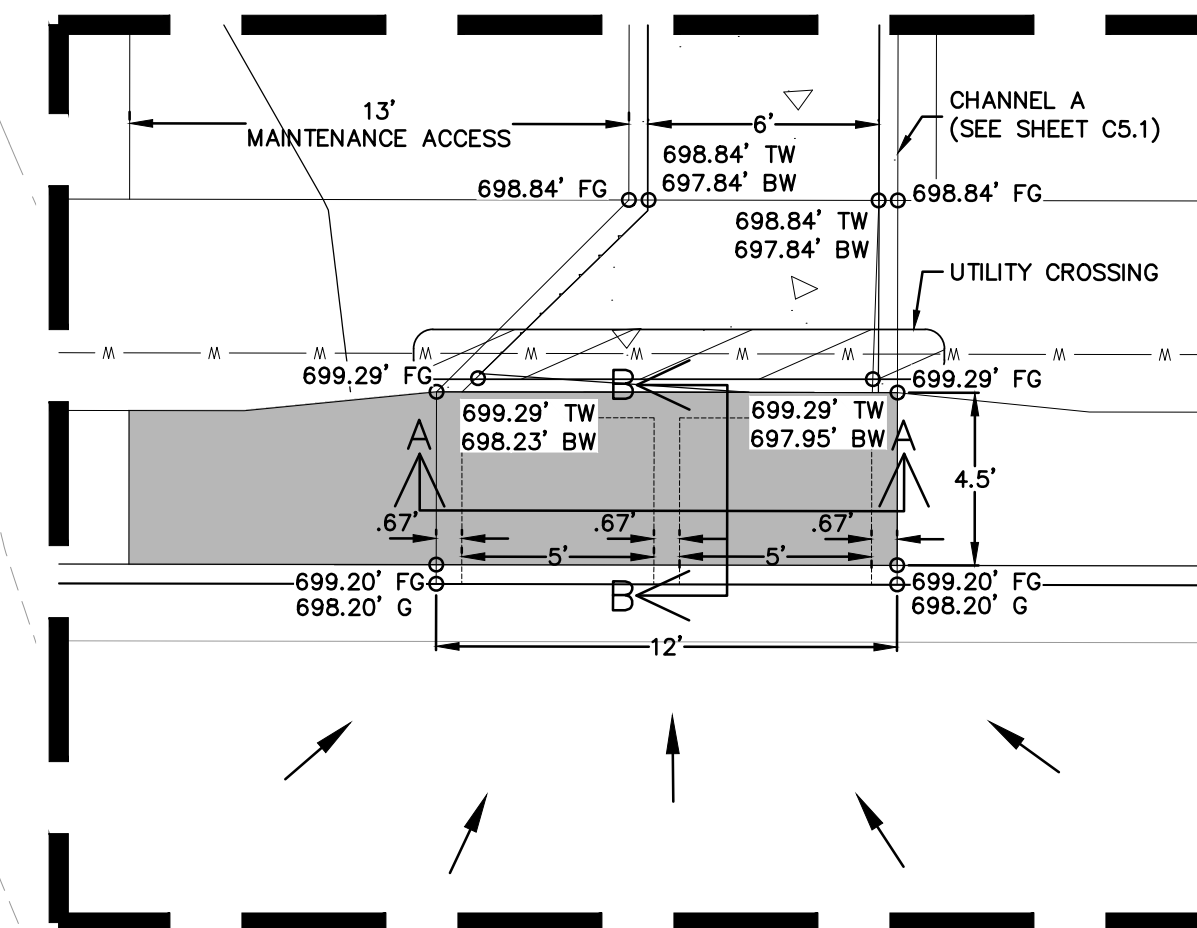
410 N. SEQUIN AVE.
NEW BRAUNFELS, TX 78130
HMTNB.COM
P(830)625-8555-F(830)625-8556
TBP&E FIRM F-10961
TBP&E FIRM 10153600



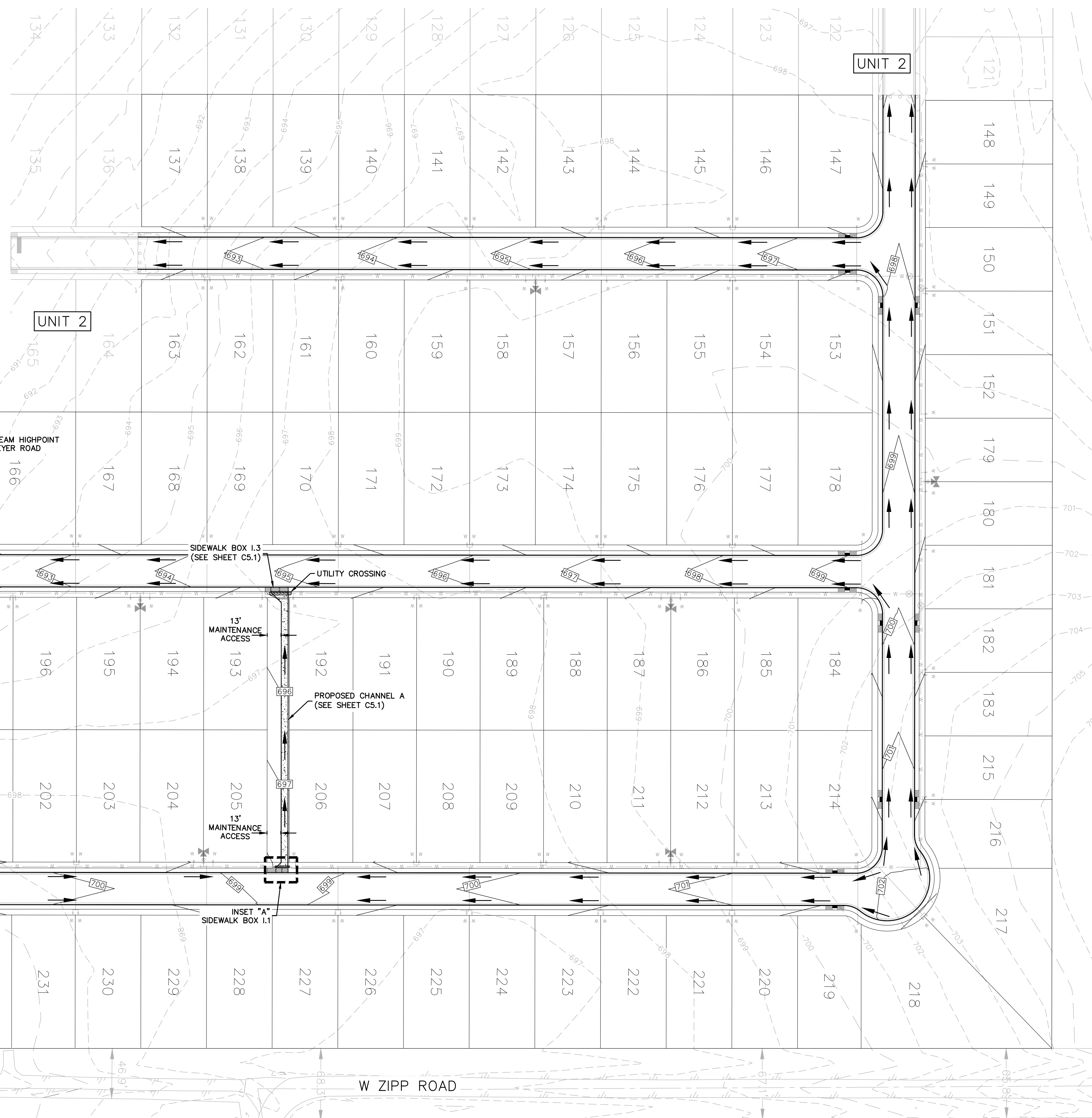


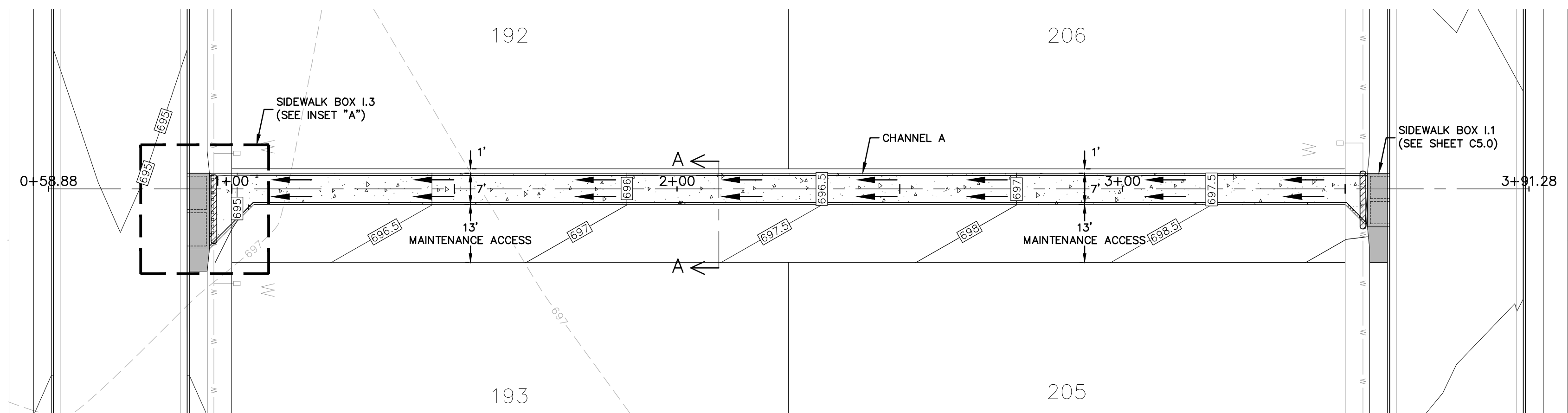
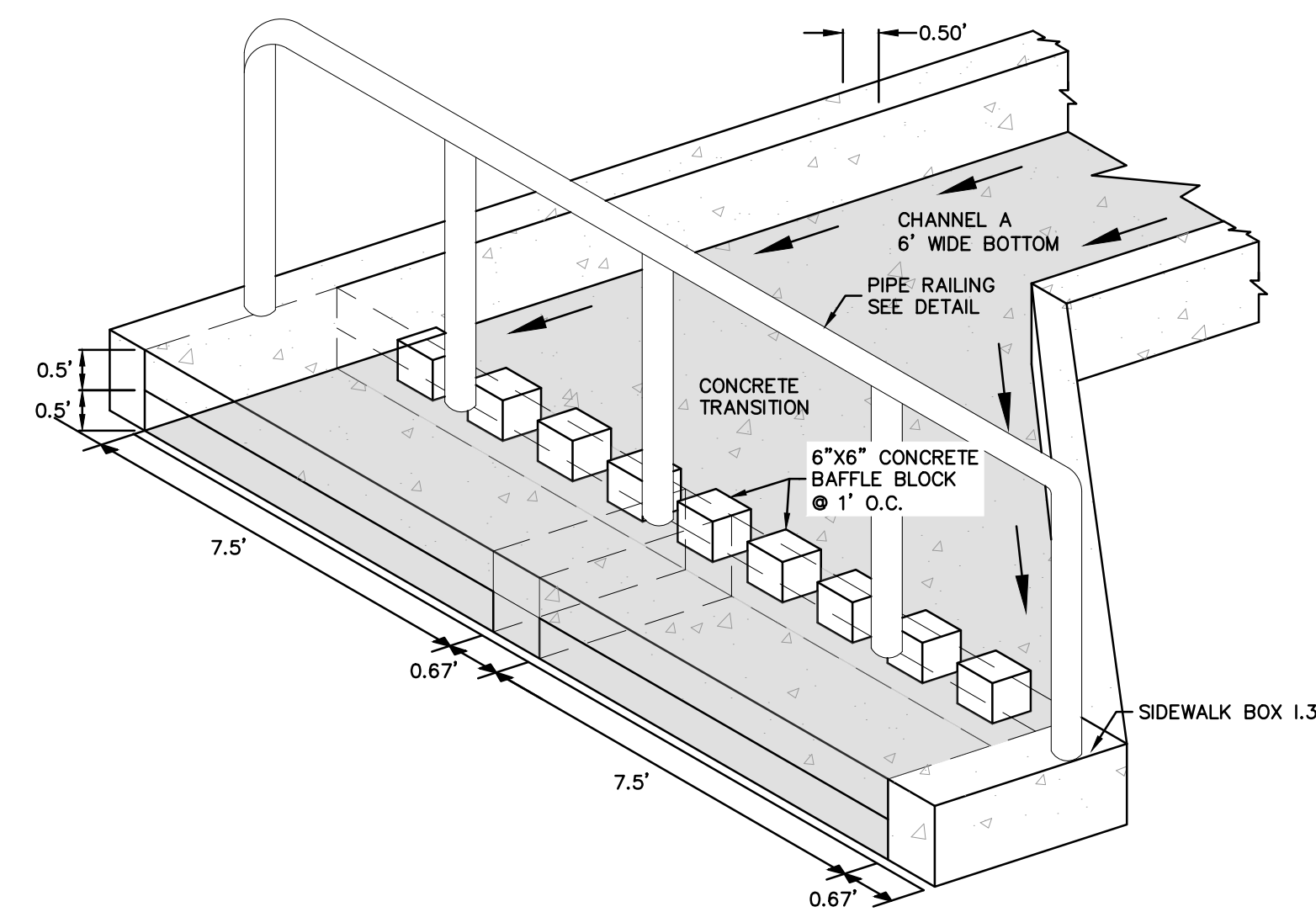
- | <u>LEGEND</u> | |
|-------------------------------------------------------------------------------------|----------------------|
|  | EXISTING CONTOURS |
|  | PROPOSED CONTOURS |
|  | WATERLINE |
|  | UTILITY CROSSING |
|  | FLOW DIRECTION ARROW |
|  | SPOT ELEVATION |
| FG | FINISHED GRADE |
| G | GUTTER |
| TW | TOP OF WALL |
| BW | BOTTOM OF WALL |

- 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:
 - A. PER NOTE 11 ON PLAT SHEET C0.03.
 - B. HUD DETAILS SHOWN ON SHEET C4.01.
 3. CONTRACTOR TO VEGETATE POND ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN OF 75% VEGETATION PRIOR TO COMPLETION

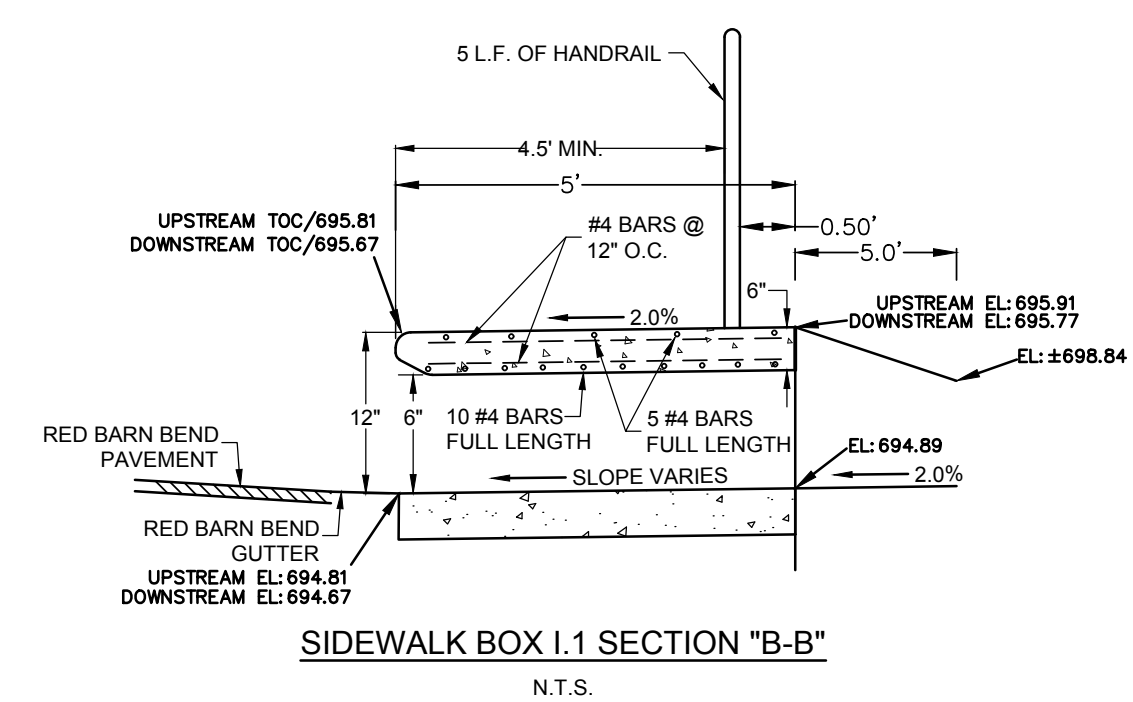
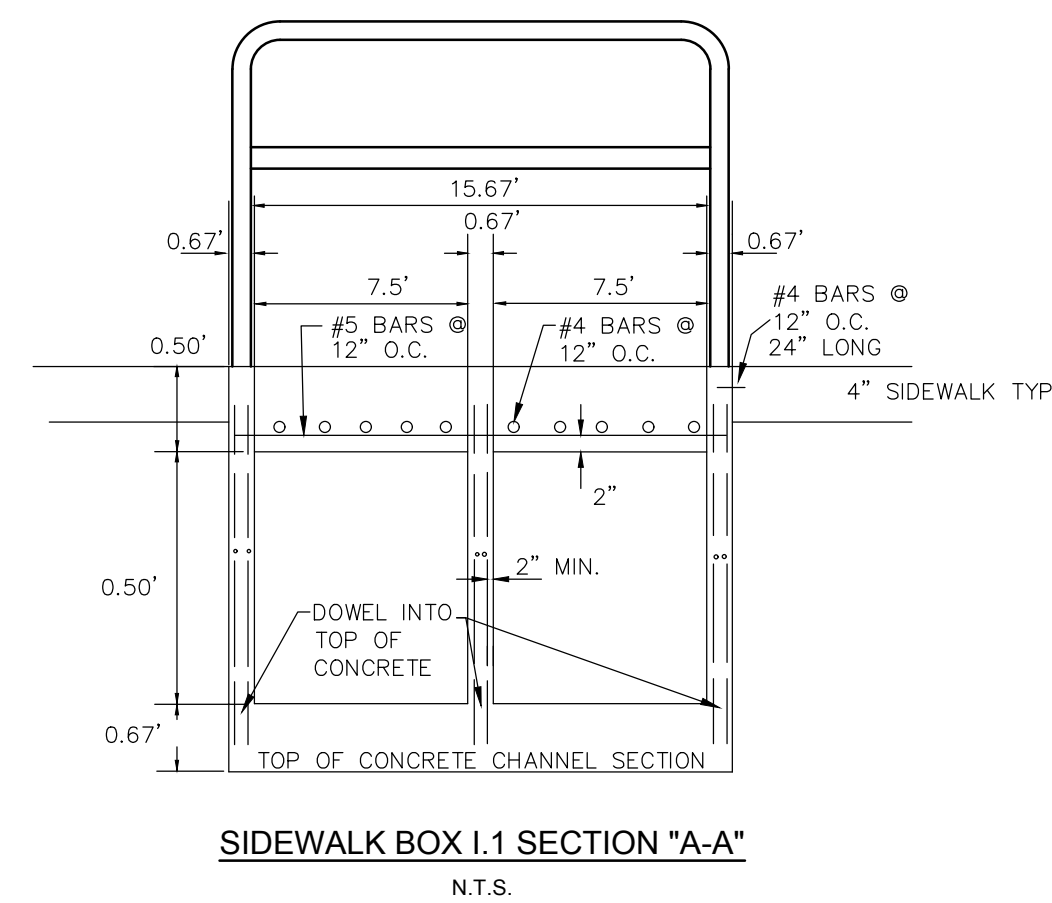
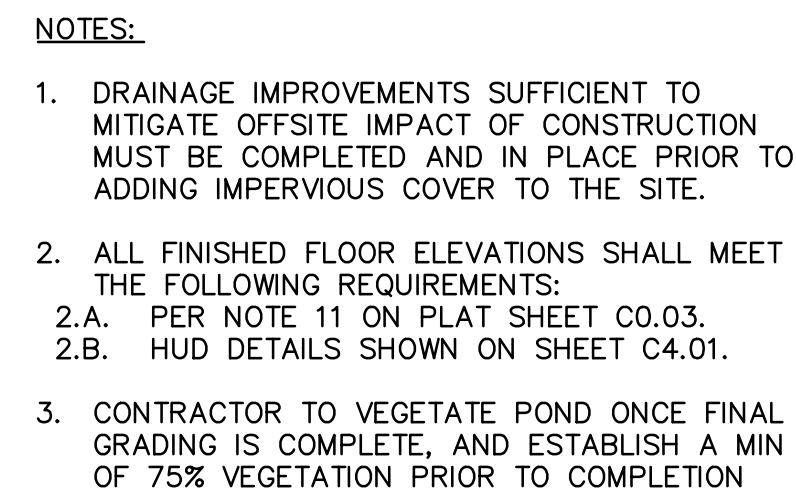
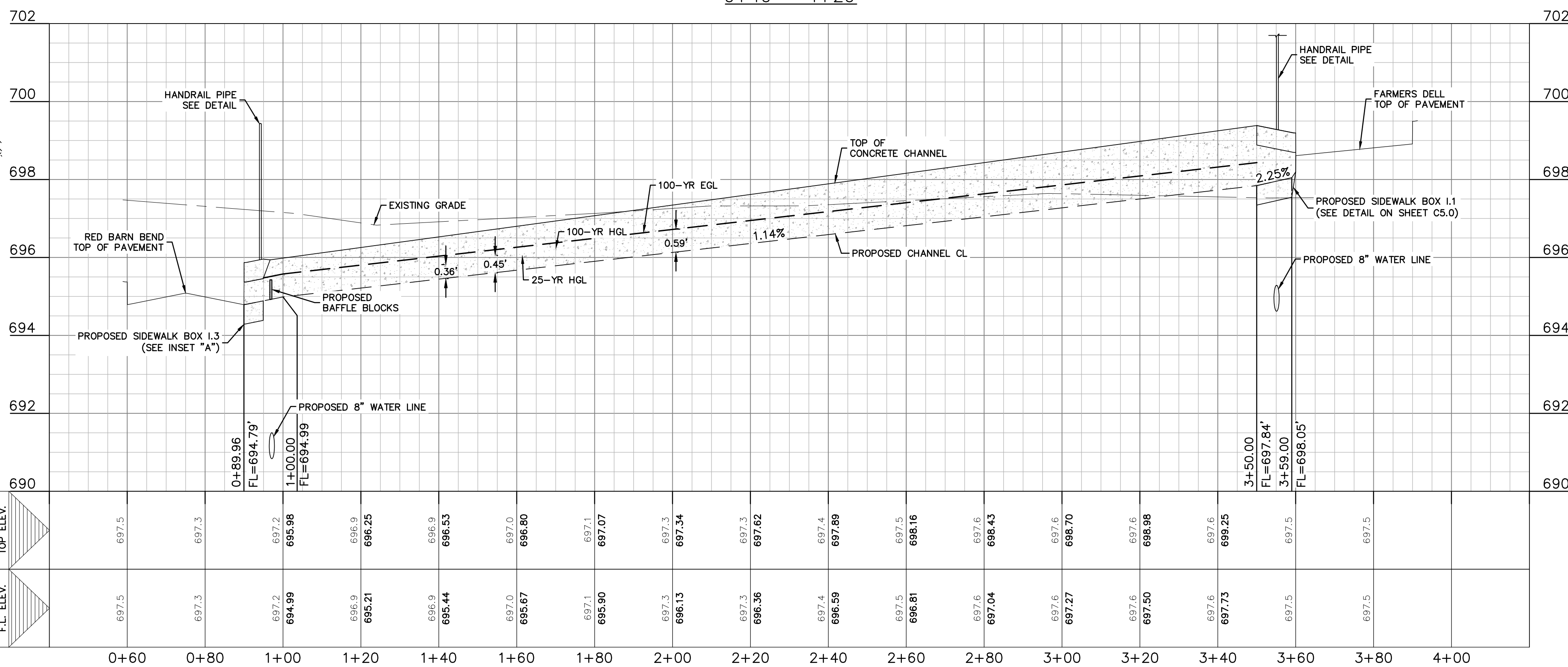
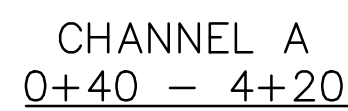


THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE
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 UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES.
 CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES
 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.





H = 1FT MIN.	H = 1FT MIN.	H = 1FT MIN.
Q ₂ = 6.16 CFS	Q ₂₅ = 12.01 CFS	Q ₁₀₀ = 17.86 CFS
BW = 6FT	BW = 6FT	BW = 6FT
n = 0.013	n = 0.013	n = 0.013
S = 1.14%	S = 1.14%	S = 1.14%
Dn = 0.23FT	Dn = 0.35FT	Dn = 0.45FT
Vn = 4.40 FPS	Vn = 5.67 FPS	Vn = 6.56 FPS



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410 N. SEGUN AVE.
NEW BRAUNFELS, TX 78130
HMTNB.COM
P(830)625-8555 • F(830)625-8556
TBPE FIRM F-10961
TBPLS FIRM 10153600



HMT
ENGINEERING & SURVEYING

05/10/2018

CHANNEL A

PLAN & PROFILE

THE SILOS

UNIT 3

[illegible]

DATE: MAY 2018

DRAWN BY: MM

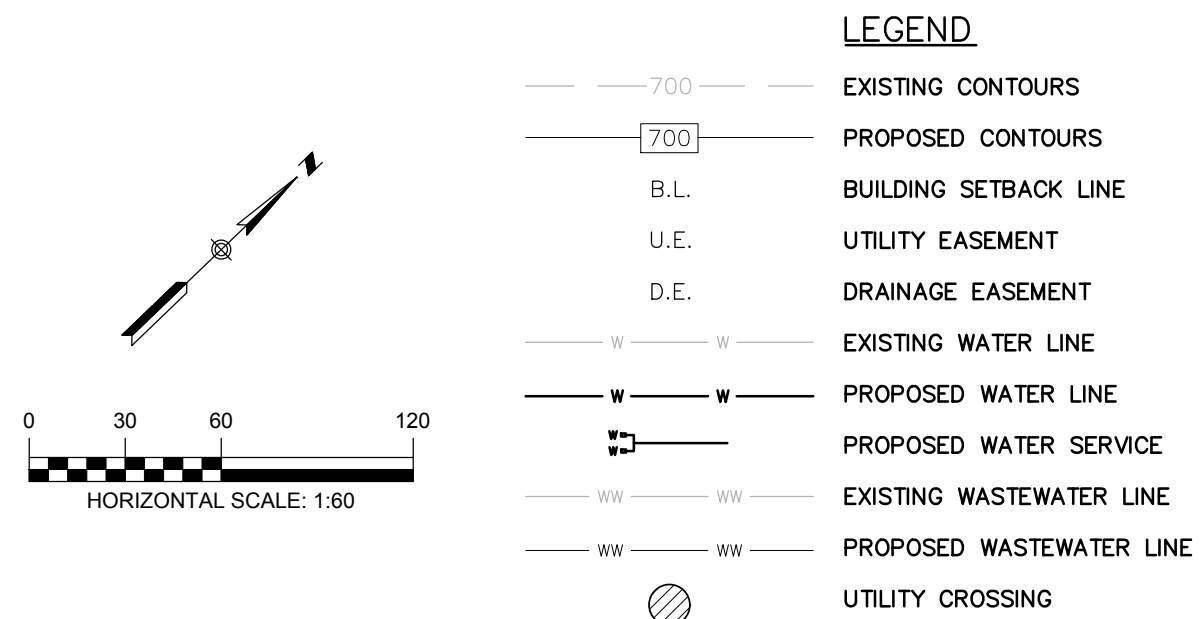
DESIGNED BY: **AM/MM**

REVIEWED BY: SWH/SC

HMT PROJECT NO.

SHEET

C5.1



1. All workmanship and Materials for the Water System shall conform to the Construction Standards of Green Valley S.U.D.
2. Six inch, 8", 12" and 16" water pipe shall be PVC AWWA approved C-909/C-905, pressure class 235. Services shall be Type "KC" soft copper. All fittings shall be domestic Ductile Iron Mechanical Joint. Foster Adapter, Anchor nipple or Ford Uni-Flange retain glands and thrust blocks shall be used on all fittings and valves. Water Mains shall have an absolute minimum 36" depth under street and 42" in all other areas. ALL WATERLINES MUST BE BEDDED; ALL BEDDING MATERIAL SHALL BE A "PIT RUN OR SCREEN FIELD SAND. Submittal approval by Green Valley. A tracer wire shall be installed on the pipe line and brought up into valve boxes for local purposes and 12" wide tracer tape 1ft. above the pipe.
3. Streets will be excavated down to sub-grade and the street contractor prior to construction of the sewer and water mains will cut down the parkways to the top of curb.
4. All sewer pipes crossing the water distribution system will be held in strict accordance with TNRCRC Rules and Regulations. Proposed subgrade limits and dimensions must be shown on the plans and construction procedures will be inspected to verify that TNRCRC section 290.44(c)(5/8) are met.
5. Contractor shall provide "as-built" water line plans before final inspection. The plans shall list material manufacturers, line length from fitting to fitting and tap locations.
6. The existence and location of underground utilities indicated are taken from records available and are not guaranteed, but shall be investigated and verified by the contractor before starting work. The contractor will be held responsible for any damage to and for maintenance protection of the existing utilities whether they are shown on the plans or not.
7. A preconstruction meeting shall be held before construction begins. The Green Valley inspector shall be notified at least forty-eight hours prior to back filling or testing.
8. No valves in the Green Valley SUD water distribution system shall be operated by the contractor without prior permission of the District. The contractor shall notify Green Valley SUD when a valve is to be operated and shall only operate the valve in the presence of the Green Valley SUD representative.
9. All water pipe, fittings, and valves shall be laid in sand embankment. The sand shall fully encase all pipes including fittings and valves a minimum of twelve (12) inches. All fittings and valves are to receive thrust blocking and Foster Adapter, anchor nipple, Ford Uni-Flan retains gland joint restraints. Bell joint restraints specified by Green Valley staff or the Districts engineer.
10. New water mains shall pass the pressure testing and the Minimum Public Health Standards for Bacteriological Quality prior to any tie in to existing water mains and service line transfers. The contractor shall make all ties to existing mains required by the plans as soon as pipelaying reaches the designated location except where the plans provide for a tie in to be made after new mains have been approved and accepted for service by the owner.
11. No other utility closer than 3 feet to water main. All services to be 1" Copper.
12. Tapping machines utilized for the purpose of installing tapping valves up to 2", corporations stop, and air release valves will be of the purge type, which at the time of tapping shall expel all chips and residue to atmosphere through an appropriate outlet.
13. Pressure testing shall be every 200 LPI (Max) of line or as approved by the engineer. All errors of workmanship shall be corrected immediately. All parts of the pipeline shall be backfilled and braced sufficiently to prevent movement under pressure.
14. 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.
15. Service taps to be made with single brass strap tapping saddle with one pipe threads.
16. Standard fire hydrant shall include hydrant, 6"resilient gate valve and box, anchor fittings, pipe and all appurtenances. Hydrants shall be limited to those manufactured by Mueller. And the barrel to be silver. With a Storz connection on steamer nozzle. Fittings for plug to be tied to valve.
17. Valves shall be AWWA approved resilient seated gate valve open left and limited to those manufactured by Mueller. Contractor shall install valves as so not to interfere with curb or wheelchair ramps. No water meter services may be set in wheel chair ramps.
18. Contractor shall chlorinate new mains with HTH; the Contractor shall coordinate with the District inspector to witness chlorinating new mains and pressure test. Acceptable test results must be provided to the District.
19. All service crossings to be encased with no less than 3" PVC glued type pipe.
20. No trees may be planted in the areas designated as water or utility easements, or areas where water mains and water service crossings exist or planned to be constructed.
21. The contractor shall furnish the Engineer with all the as-built drawings with final measurements.
22. The locations and depths of any existing utilities, including service laterals, and drainage structures shown on the plans are approximate only. The Contractor shall verify the exact location and depths of underground utilities at least 48 hours prior to construction whether shown on the plans or not, and to protect the same during construction.
23. All garbage or spoil material from this work shall be removed from the site by the contractor, at his expense.
24. Meter box single-DFW36C 16X11" plastic meter box with rebar,AMR and knock out. Meter box Double-DFW38C 17x15" dual plastic meter box with rebar,ARM and knock out.
25. The Ford U branch to be used on all dual services (U48+3R) with the 5/8x3/4 female thread angle head. All other angle heads will be the Ford Q nut. All corp. stops will be IPS x Q nut. NO CC threaded corps shall be accepted.

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"THIS PROJECT INCLUDES UTILITY INSTALLATIONS GREATER THAN 5--FEET IN DEPTH. DEEP TRENCHES POSE COMPACTION TESTING AND CONSTRUCTION CHALLENGES AND CITY METHODS FOR TESTING AND COMPACTION MAY NOT BE ACHIEVABLE. A UTILITY COMPACTION PLAN WILL BE REQUIRED AND MUST BE SUBMITTED FOR APPROVAL TO CITY PRIOR TO UTILITY INSTALLATION."

NOTES:

LENGTHS SHOWN ABOVE WERE COMPUTED BASED ON THE FOLLOWING VALUES

1) SAFETY FACTOR	=	1.5 TO 1
2) TEST PRESSURE	=	200psi.
3) SOIL DESIGNATION	=	IN ORGANIC CLAY OF HIGH PLASTICITY
4) DEPTH OF COVER	=	4 FEET (TYPICAL AND UPPER BEND)
5) DEPTH OF COVER	=	5 FEET (LOWER BEND)



HMT
ENGINEERING & SURVEYING

THE SILOS

UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE
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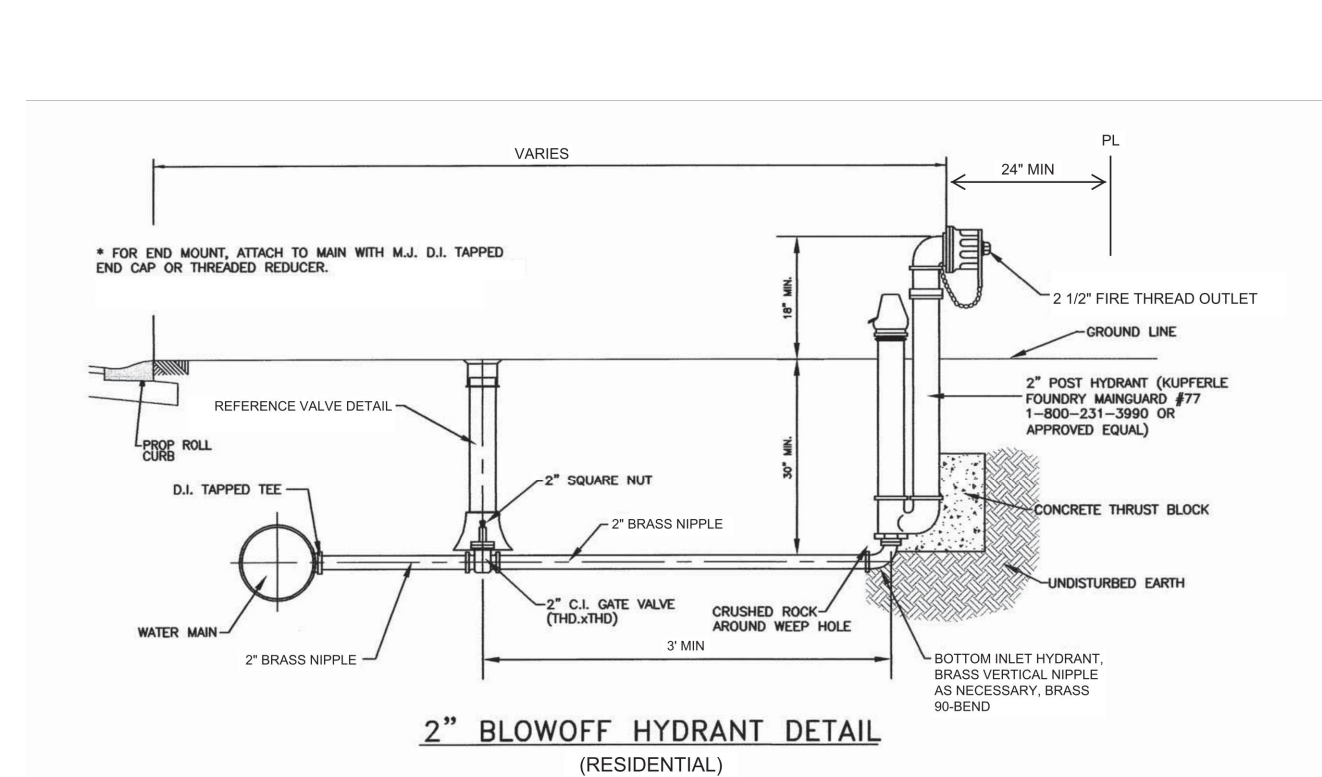
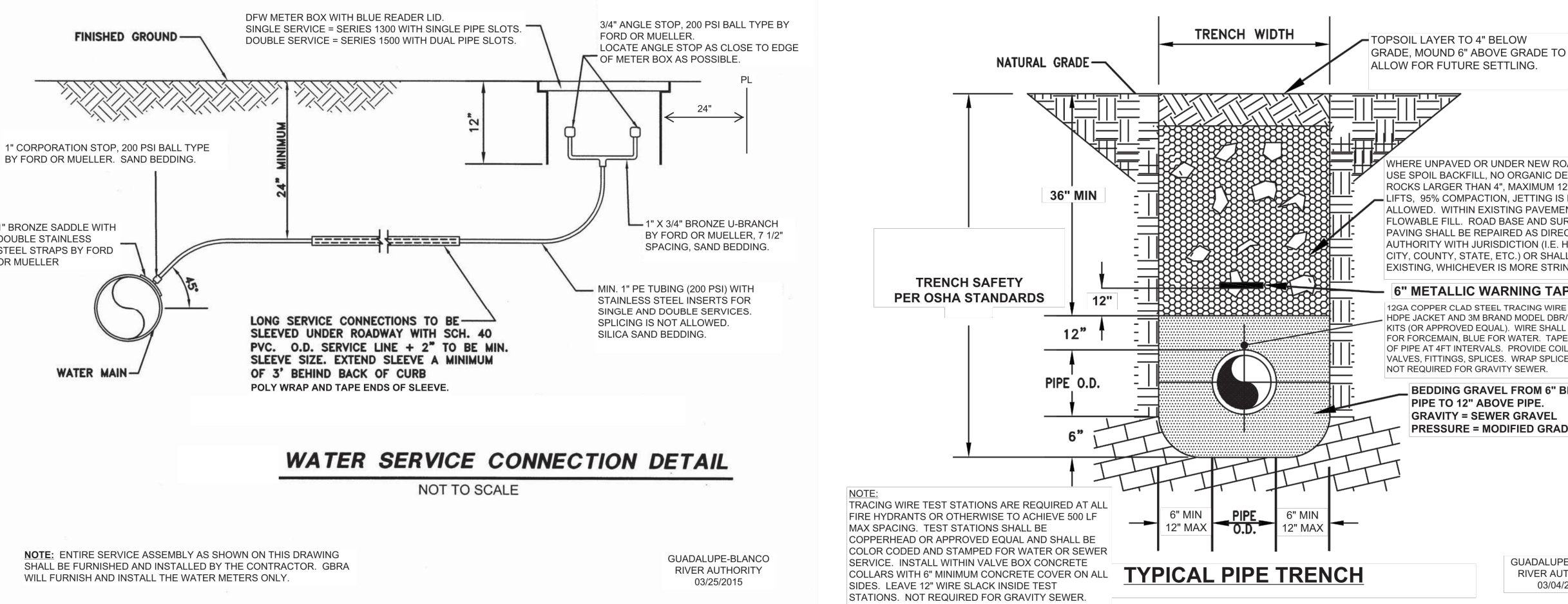
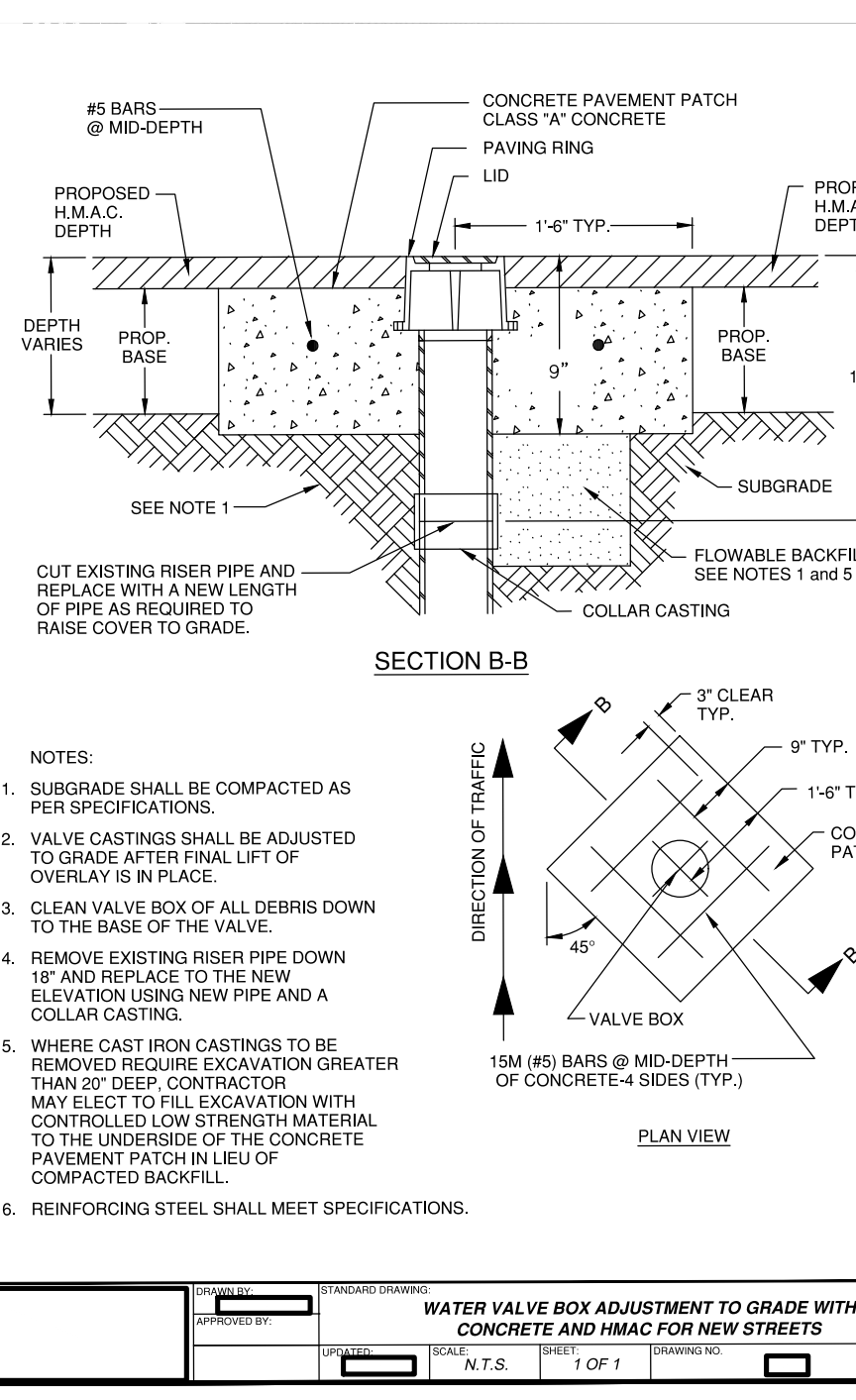
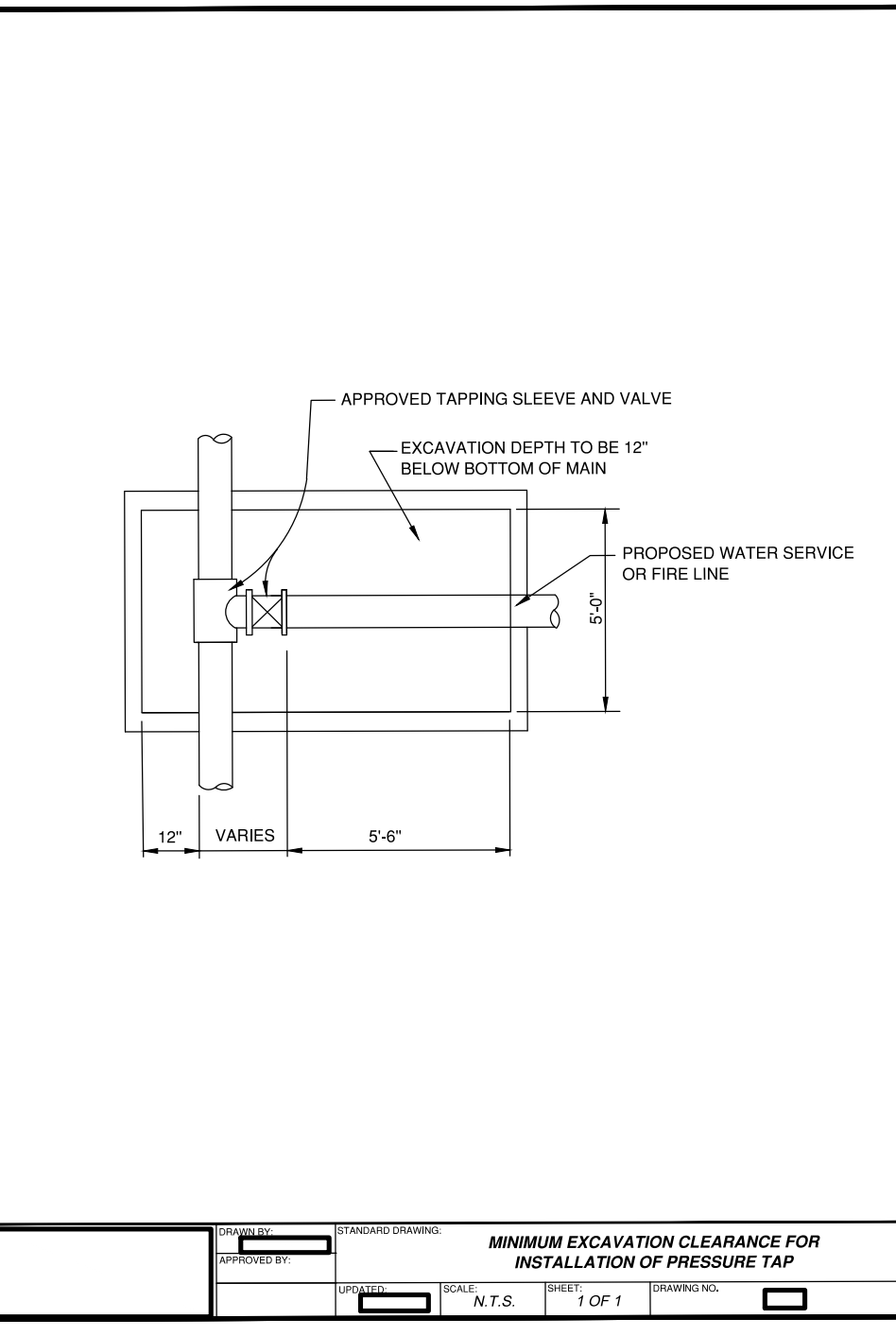
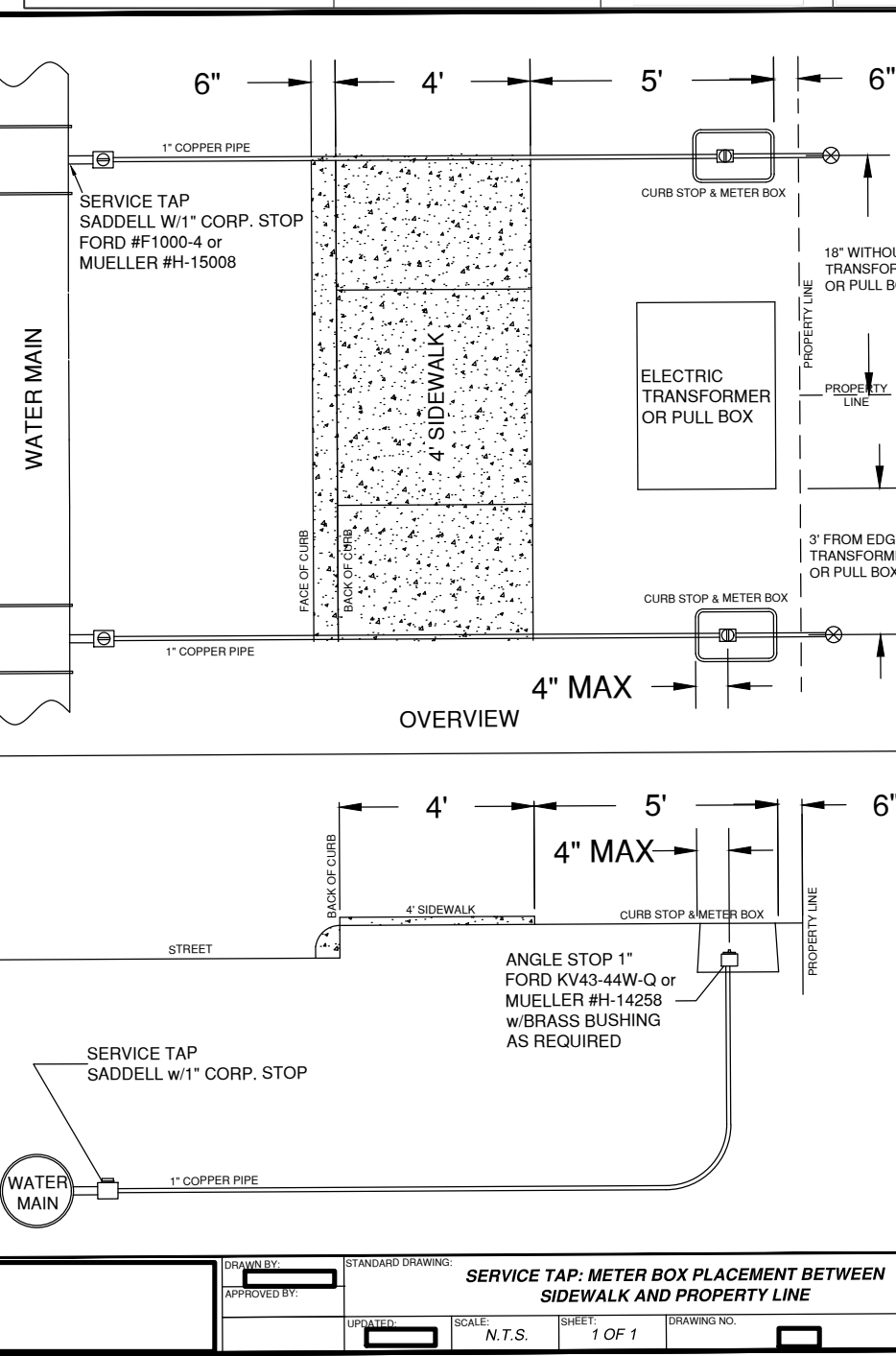
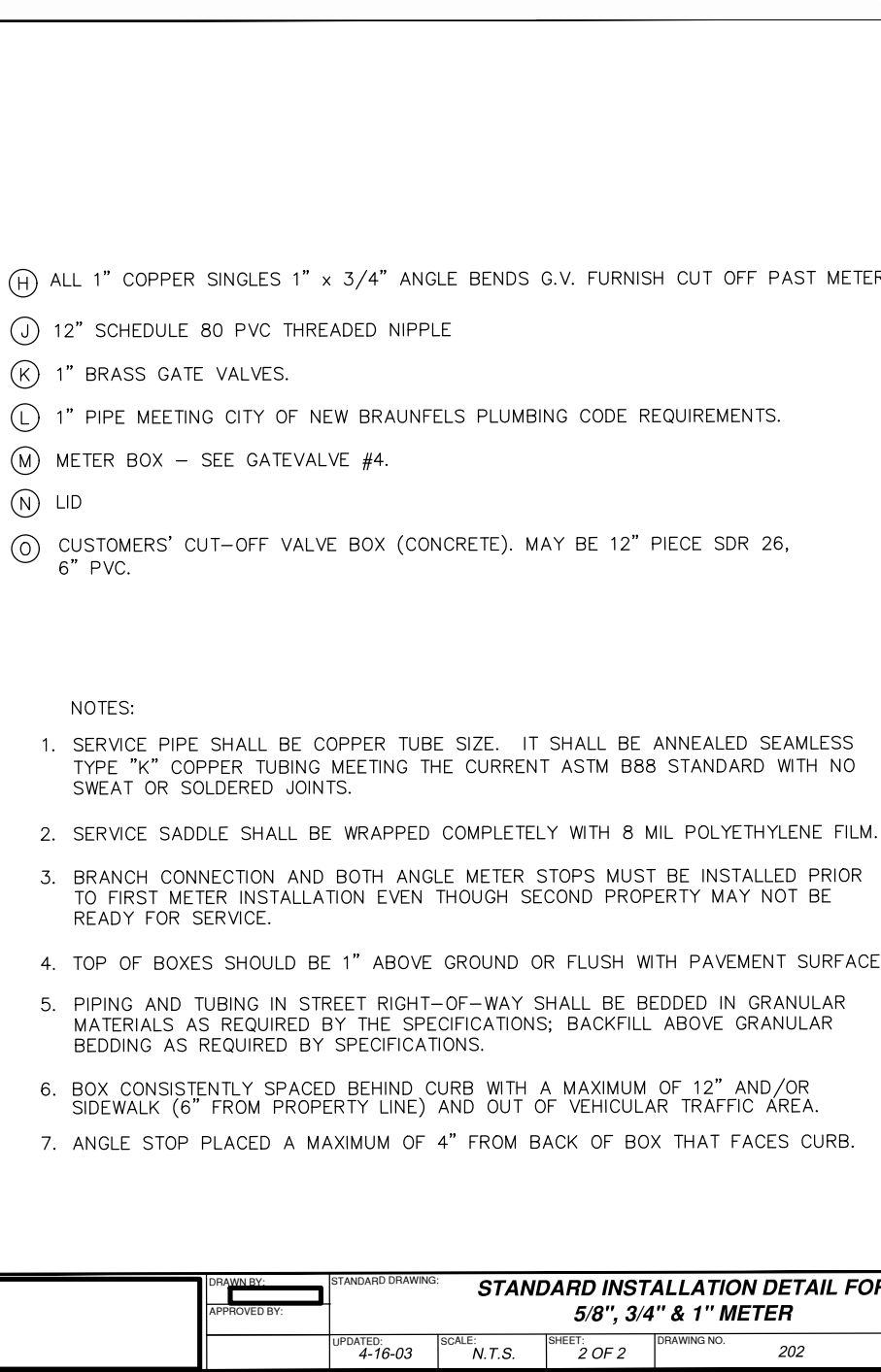
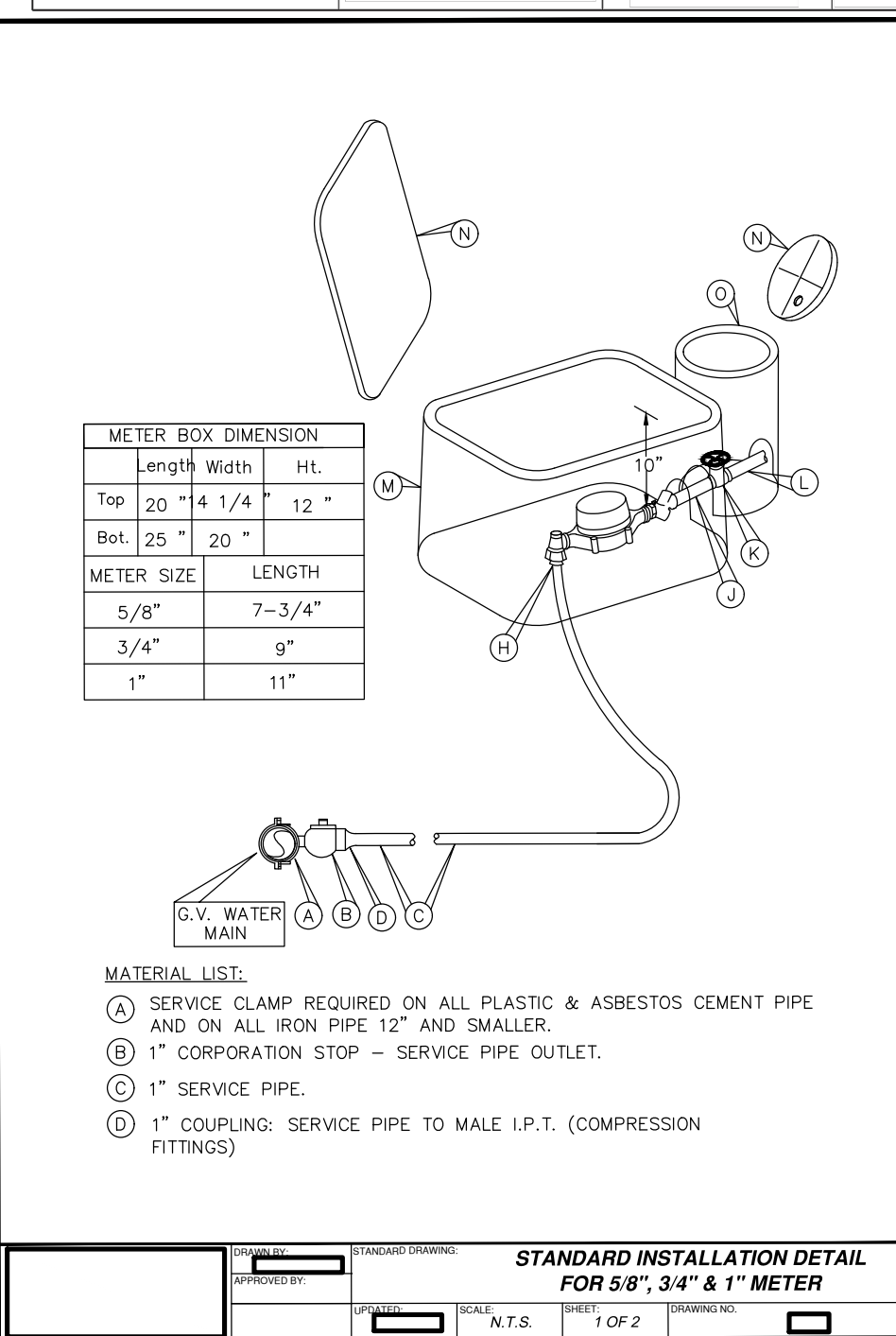
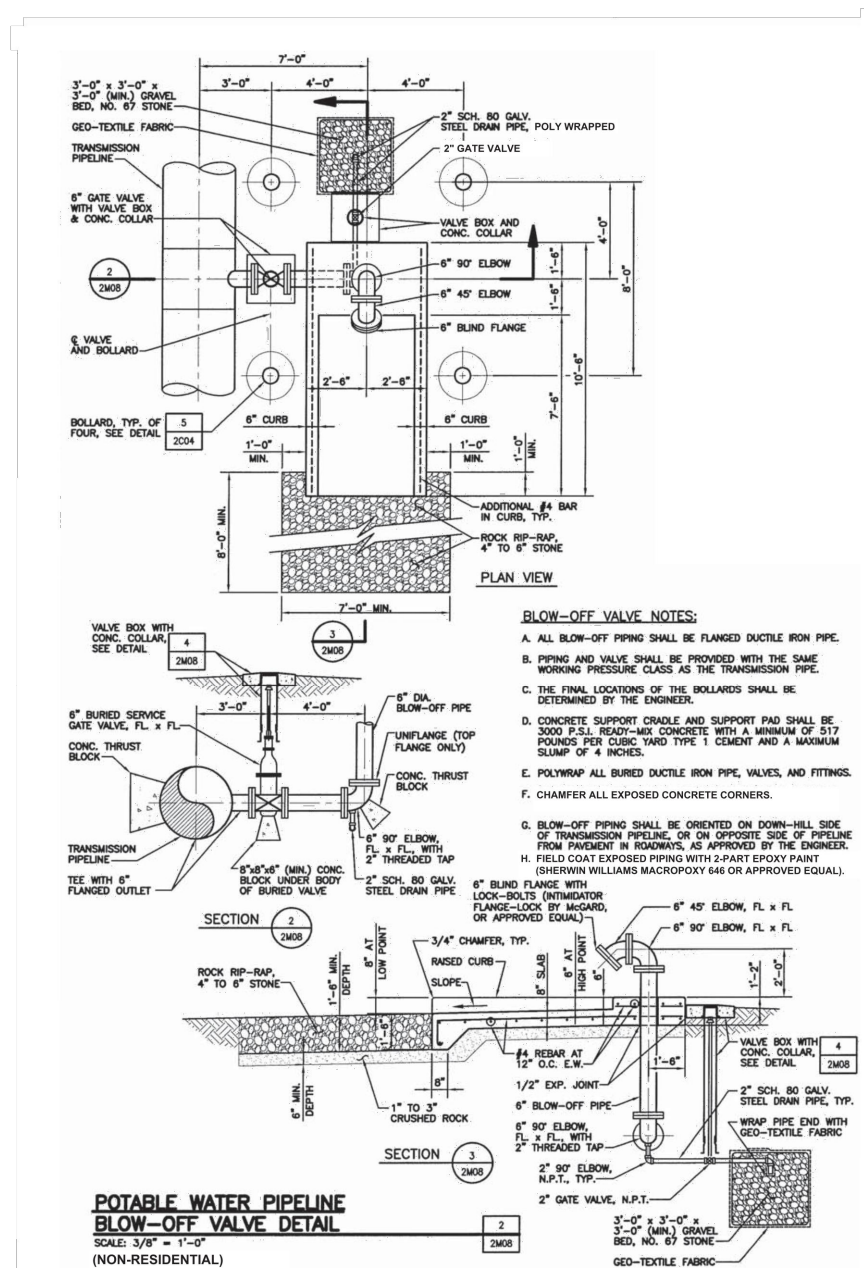
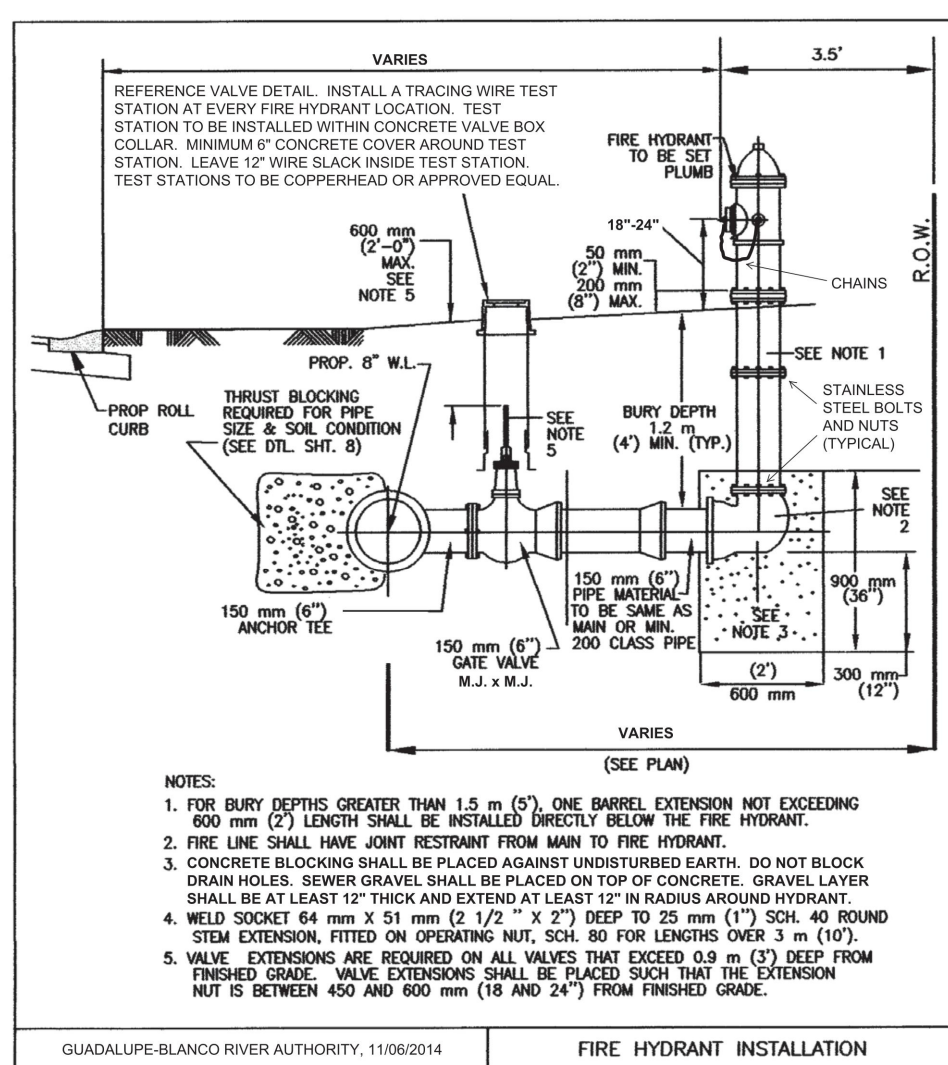
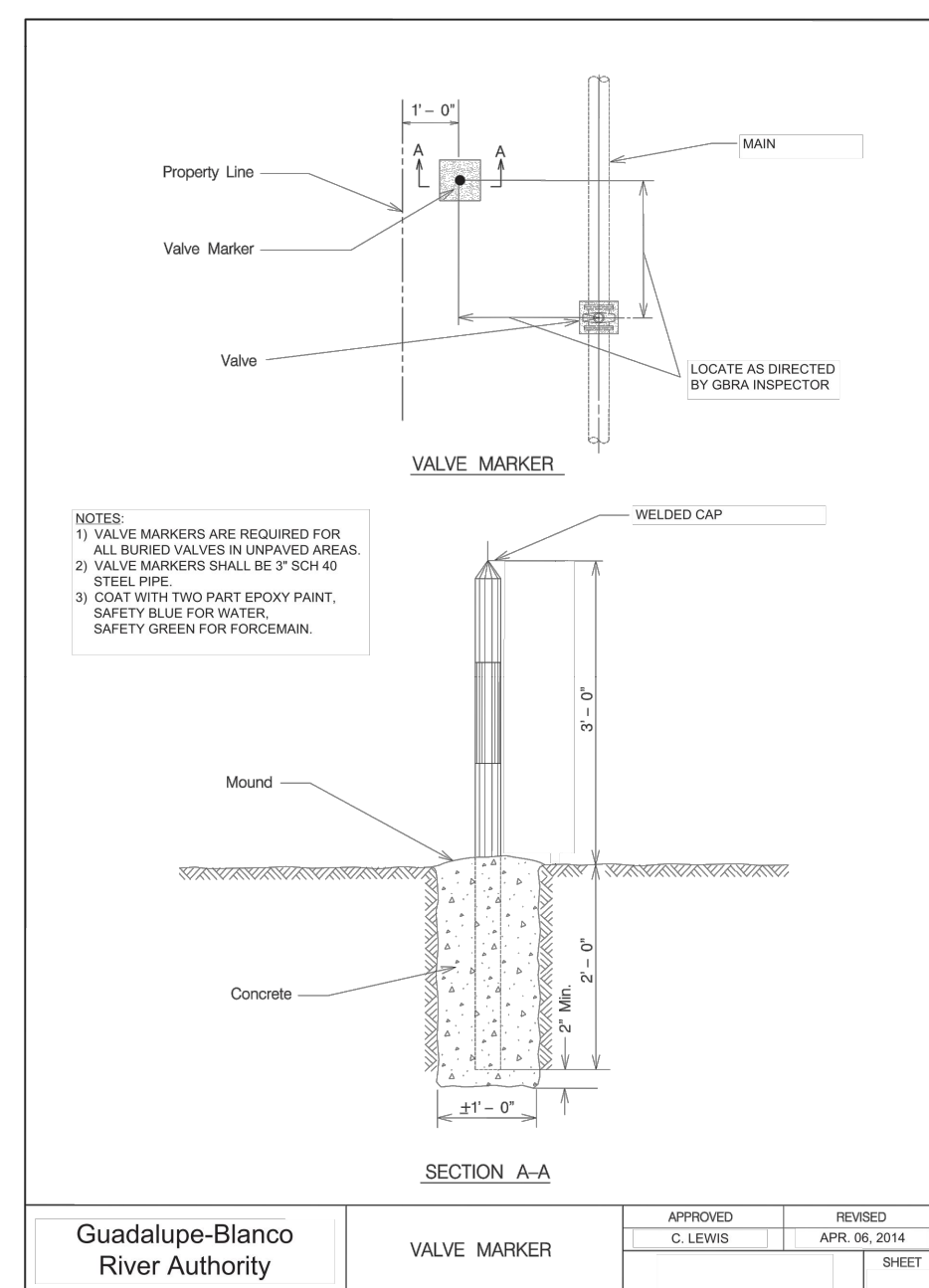
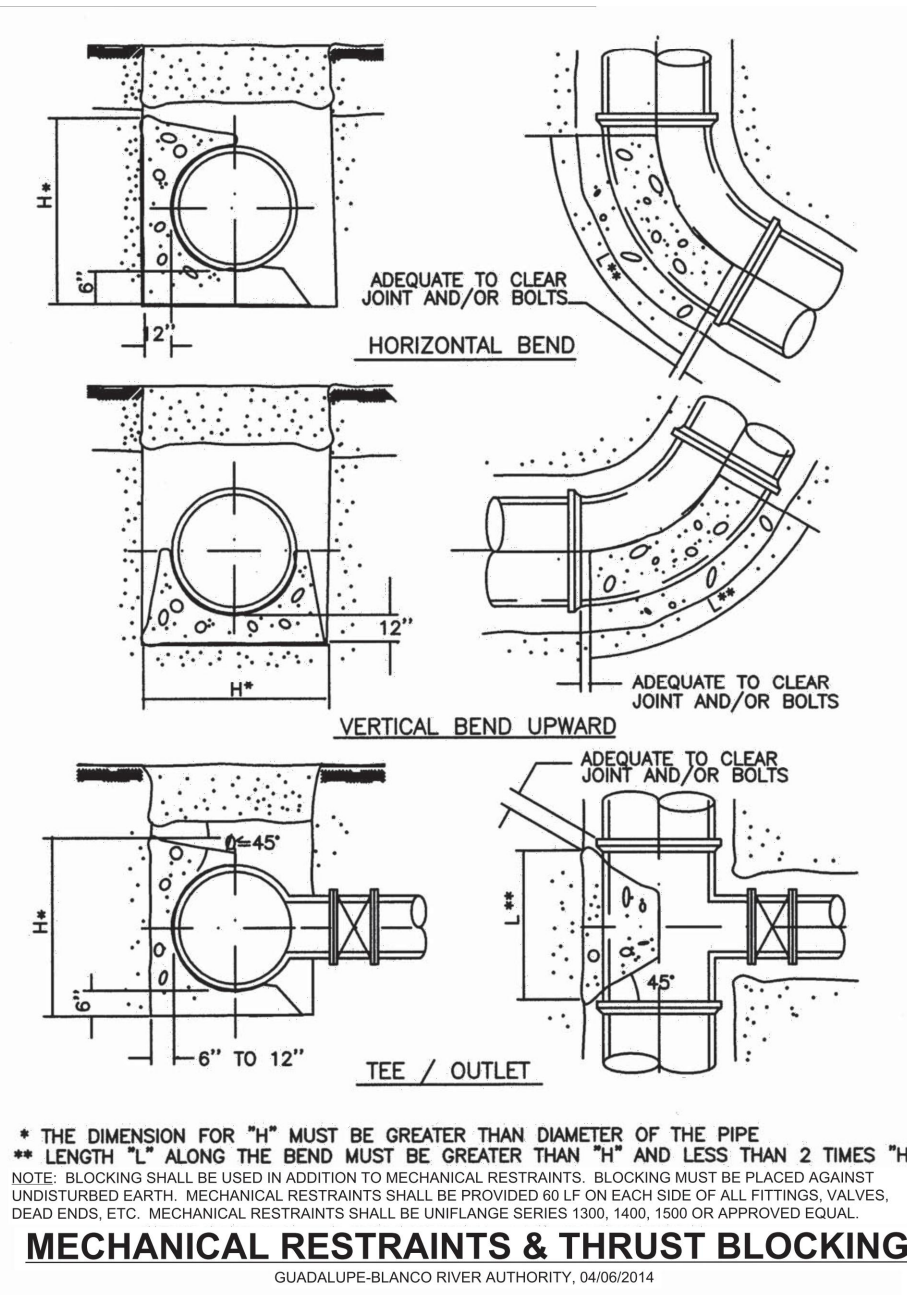
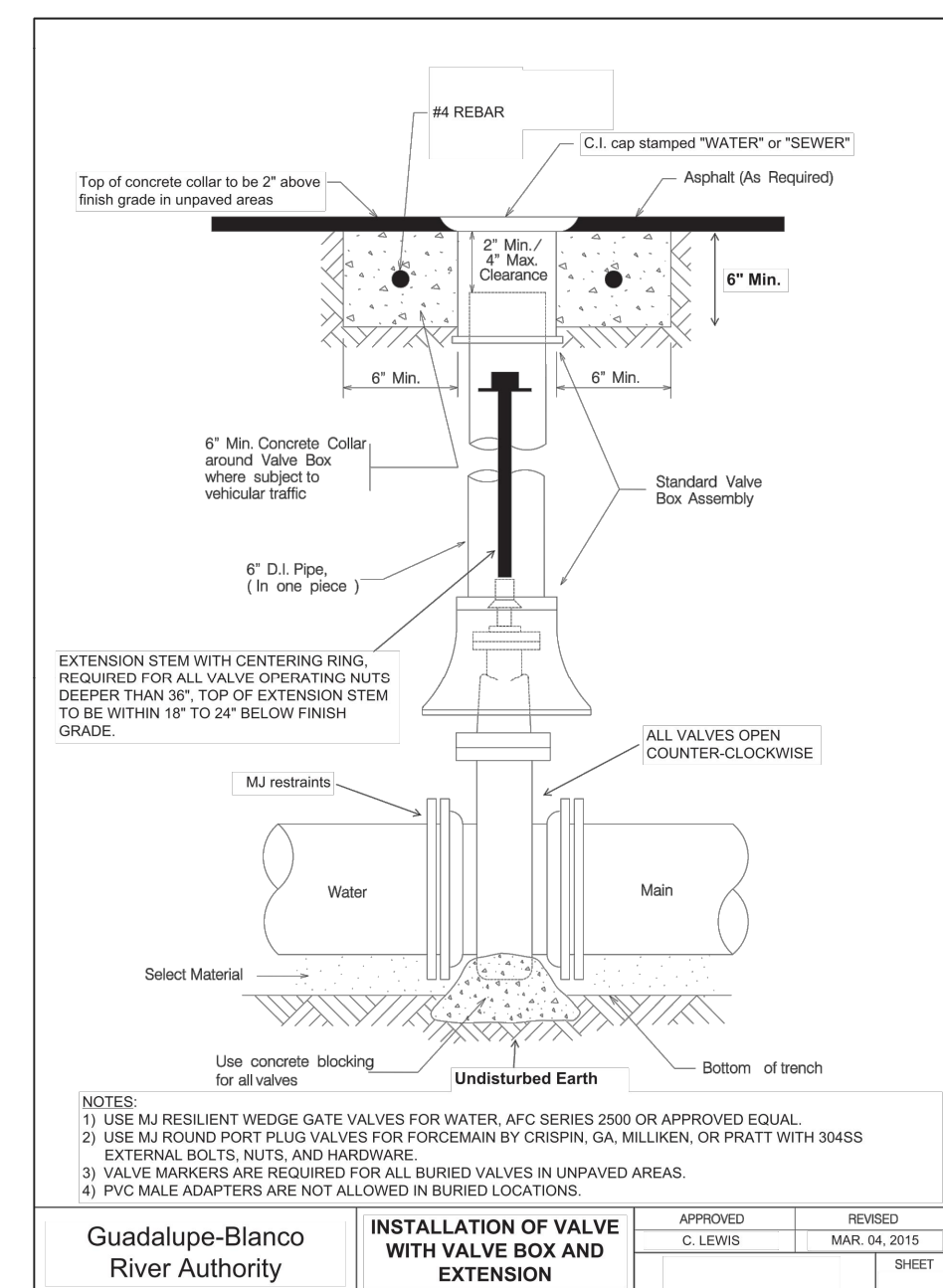
DATE: **MAY 2018**

DRAWN BY: **MM**

DESIGNED BY: **AM/MM**

REVIEWED BY: **SWH/SCH**

SHEET
C6.0



Modified Grade 5
Retained on 1/2" sieve
Retained on 3/8" sieve
Retained on No. 4 sieve
Retained on No. 10 sieve
Retained on No. 20 sieve

Percent
0
0-5
20-80
75-100
98-100

WATER & FORCEMAIN PIPE BEDDING

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

WATER DETAILS

THE SILOS
UNIT 3

[illegible]

DATE: MAY 2018

DRAWN BY: MM

DESIGNED BY: AM/MM

REVIEWED BY: S

PROJECT NO.

SHEET

C6.1

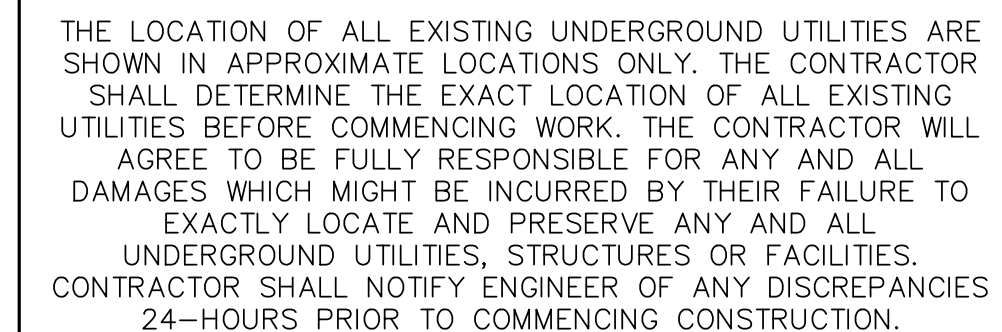
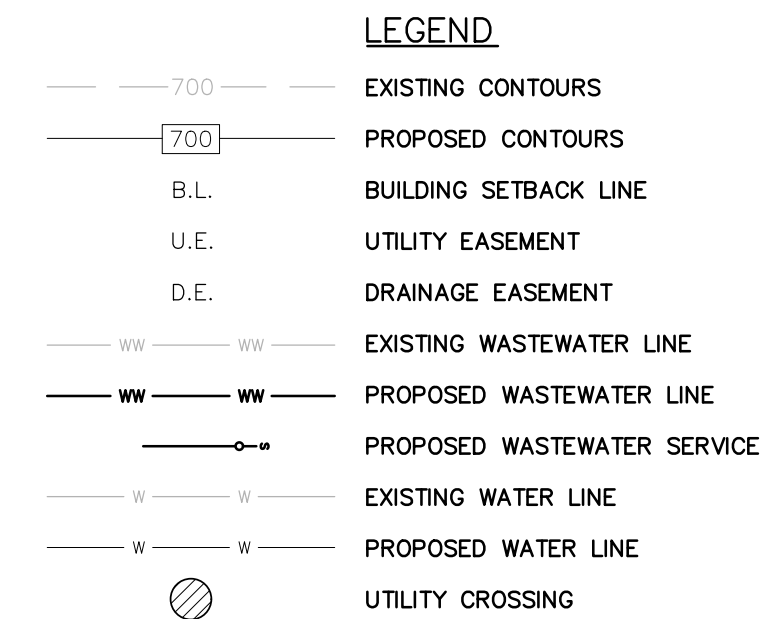


1. NO VALVES, HYDRANTS, CLEAN-OUTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS.
2. ALL SEWER PIPE ASTM 3034 (115 PSI)
3. ALL MANHOLES SHALL BE 48" DIAMETER.
4. ALL RING AND COVER SHALL BE 32" DIAMETER.
5. EXISTING MANHOLES, RIM AND FLOWLINE ELEVATIONS SURVEYED BY HMT ENGINEERING & SURVEYING DATED DECEMBER 23, 2013.

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGNER/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 CONTRACTOR'S 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.

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 GEO-TECHNICAL ENGINEER AND APPROVED BY THE CITY OF NEW BRAUNFELS STREET INSPECTOR. A MINIMUM OF TESTS SHALL BE TAKEN EVERY 100LF FOR EACH LAYER OF COMMON FILL. 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.

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.



HMT
ENGINEERING & SURVEYING

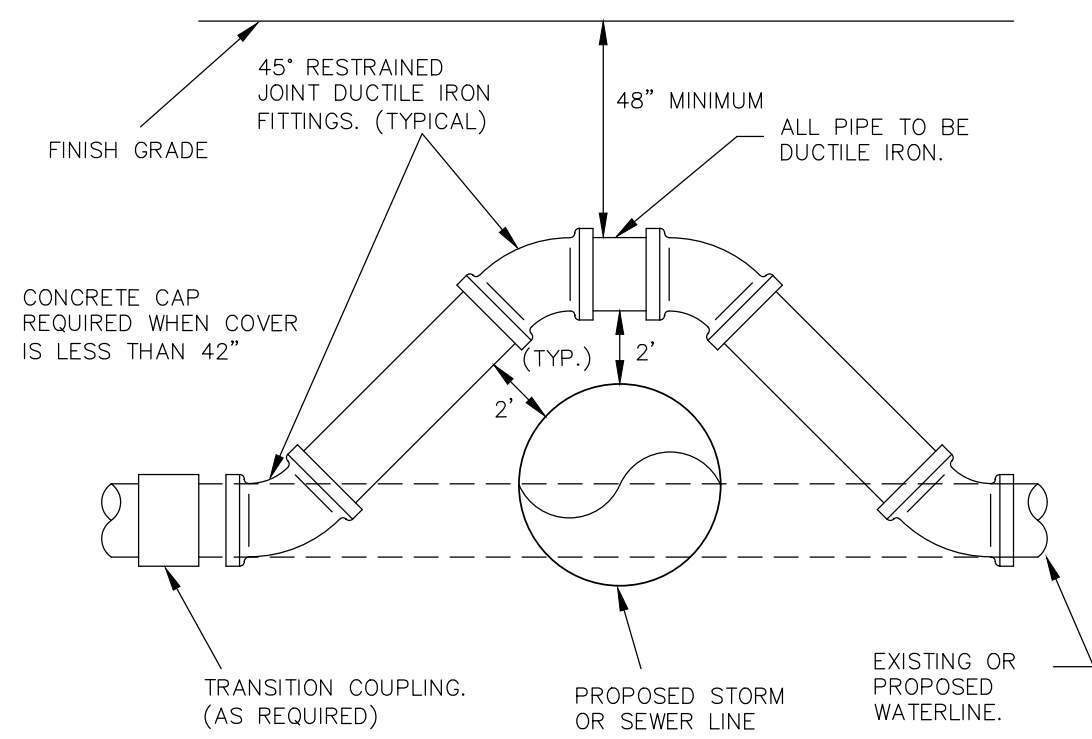
OVERALL WASTEWATER PLAN

UNIT 3

[illegible]

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
MT PROJECT NO.: 056.013

SHEET
C7.0



A WATERLINE ADJUSTMENT DETAIL
ABOVE SEWER OR STORM N.T.S

CONSTRUCTION NOTES:

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2. ALL SEWER PIPE ASTM 3034 (115 PSI)
3. ALL MANHOLES SHALL BE 48" DIAMETER.
4. ALL RING AND COVER SHALL BE 32" DIAMETER.
5. EXISTING MANHOLES, RIM AND FLOWLINE ELEVATIONS SURVEYED BY HMT ENGINEERING & SURVEYING DATED DECEMBER 23, 2013.

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 CONTRACTOR'S 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.

UTILITY TRENCH COMPACTION

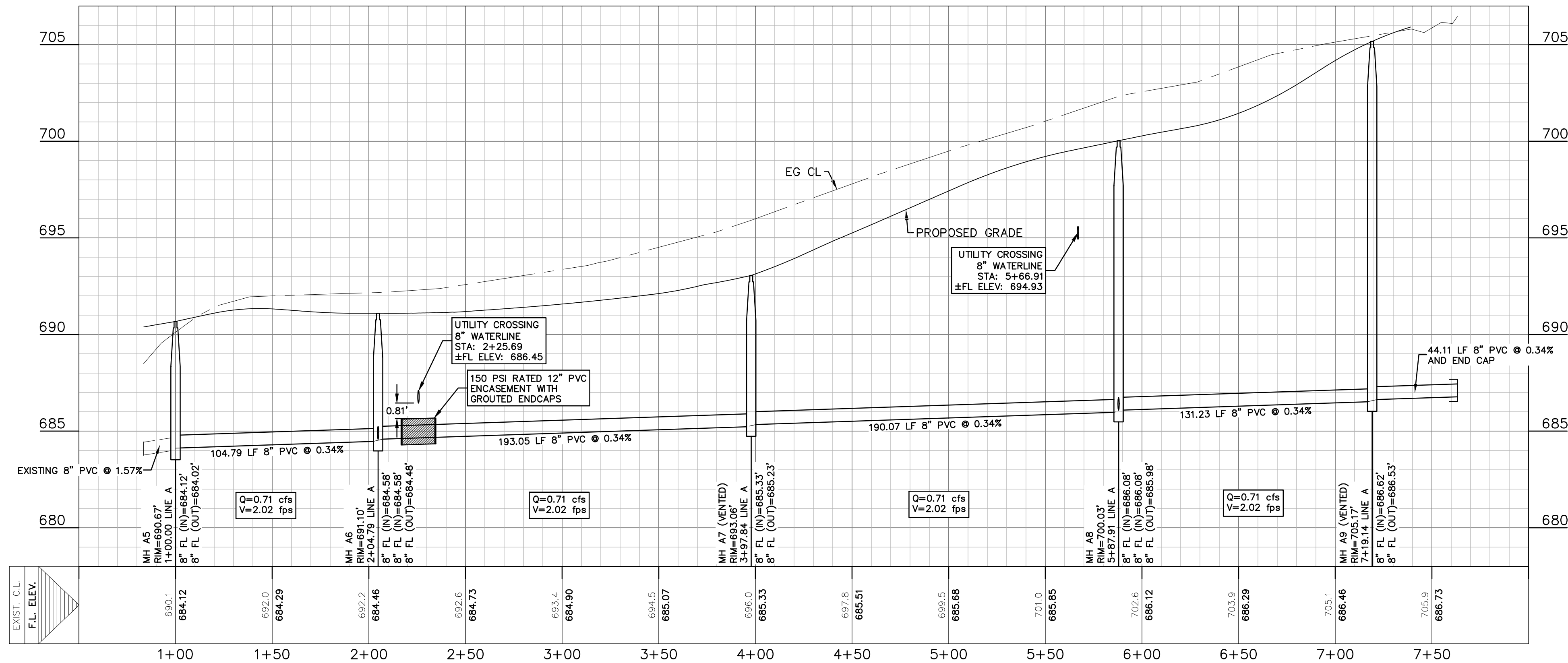
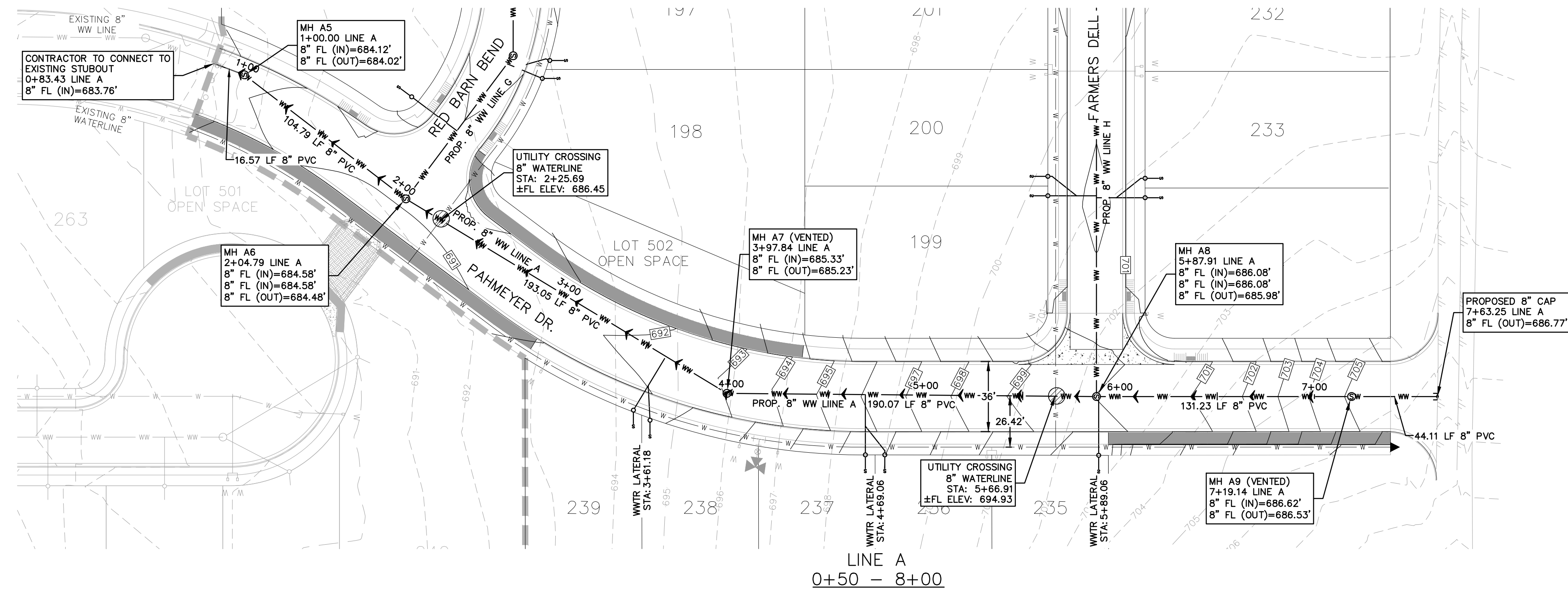
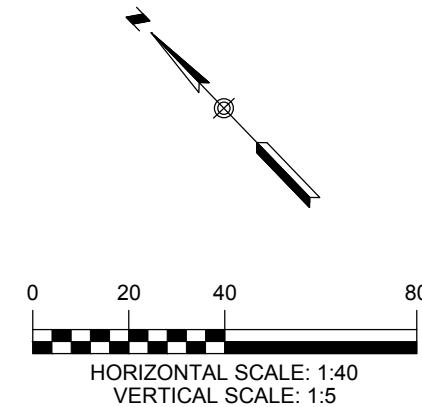
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DEEP TRENCH COMPACTION TESTING

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.

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
- PROPOSED WASTEWATER SERVICE
- W EXISTING WATER LINE
- W PROPOSED WATER LINE
- UTILITY CROSSING



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.

WASTEWATER LINE A PLAN & PROFILE THE SILOS UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: MAY 2018
DRAWN BY: MM
DESIGNED BY: AM/MM
REVIEWED BY: SWH/SCH
HMT PROJECT NO.: 056.013

SHEET
C7.1

05/10/2018

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TBPE FIRM F-10961
TBPLS FIRM 10153600

HMT
ENGINEERING & SURVEYING

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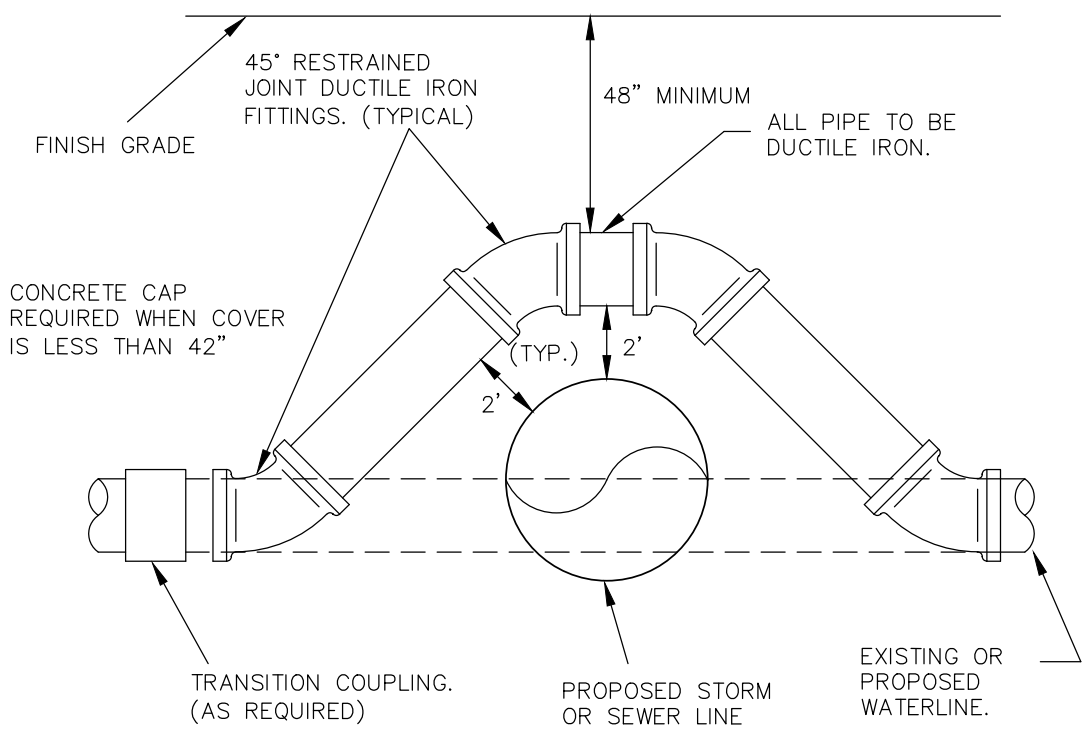
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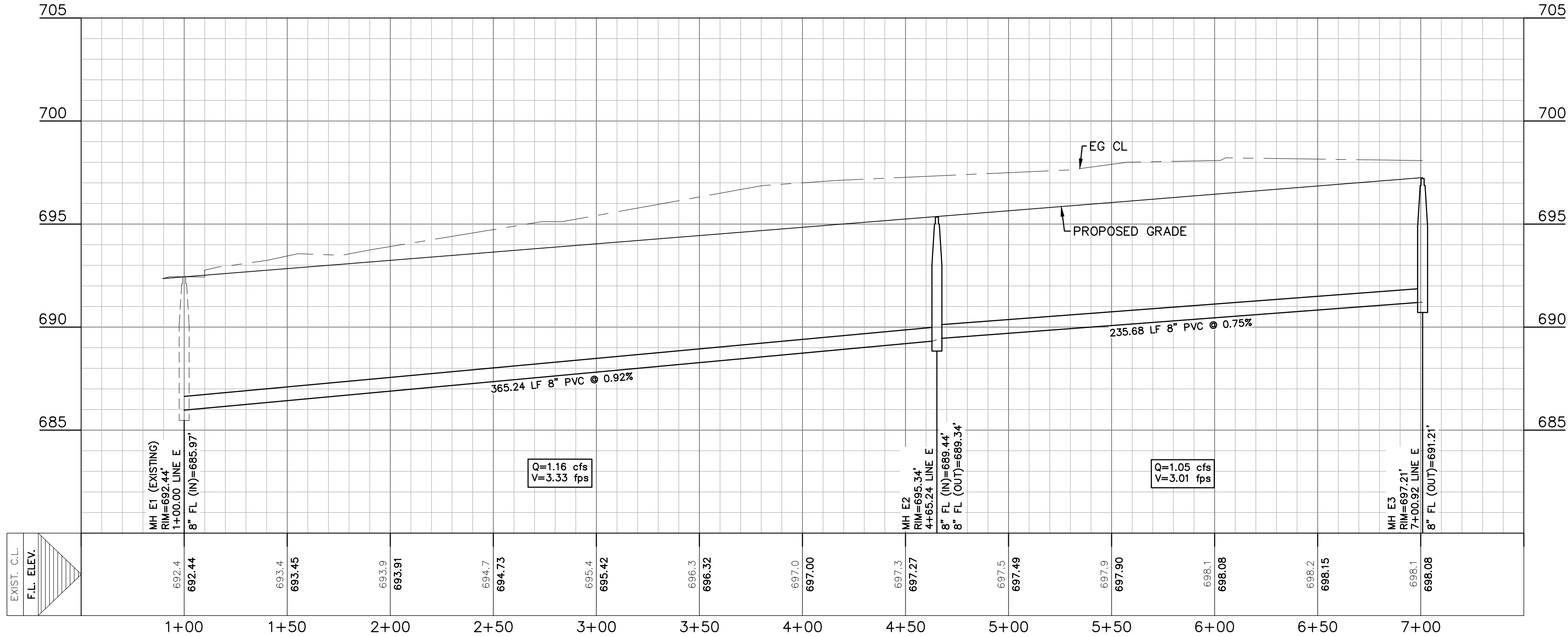
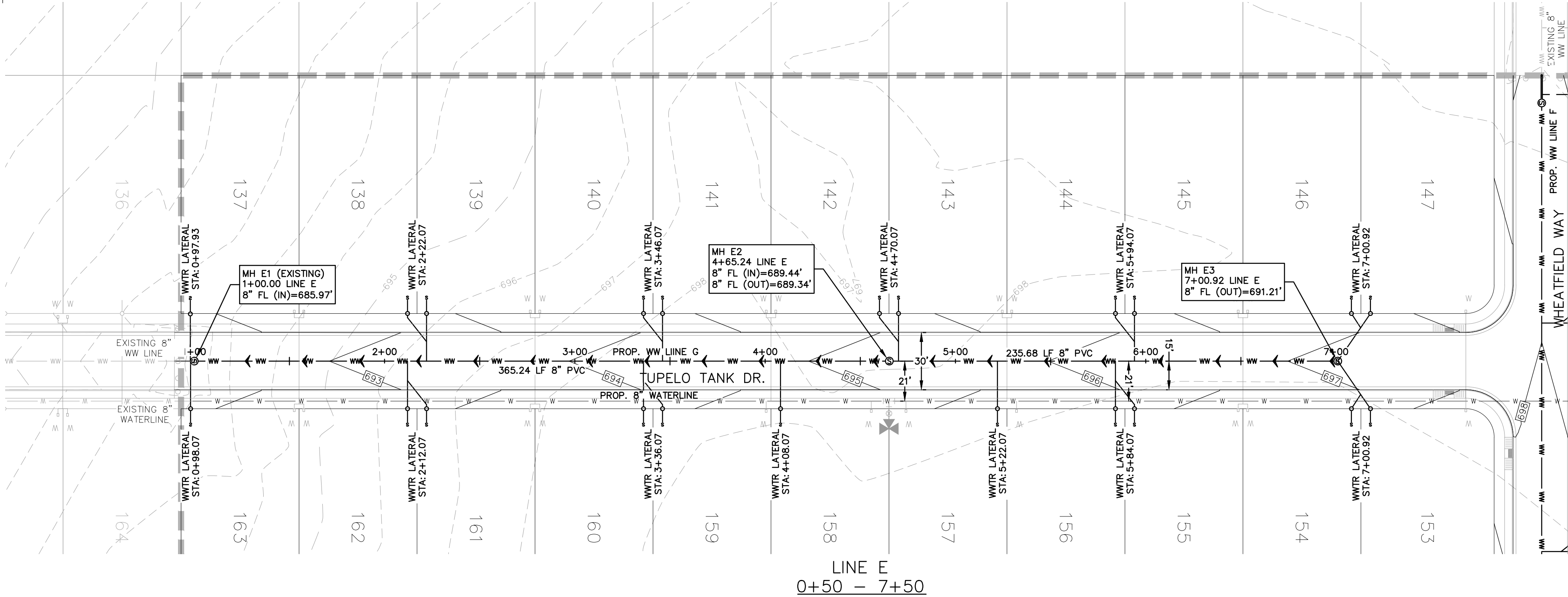
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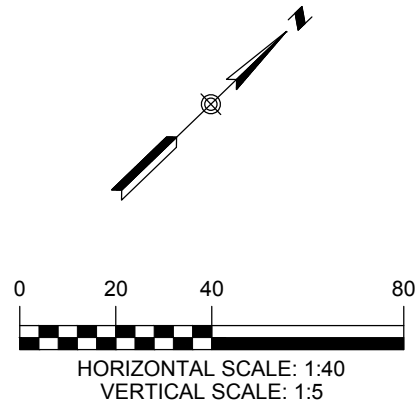
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A WATERLINE ADJUSTMENT DETAIL ABOVE SEWER OR STORM N.T.S



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05/10/2018

WASTEWATER LINE E
PLAN & PROFILE
THE SILOS
UNIT 3

NO.	REVISION DESCRIPTION	REVISION DATE

DATE: MAY 2018

DRAWN BY: MM

DESIGNED BY: AM/MM

REVIEWED BY: SWH/SCH

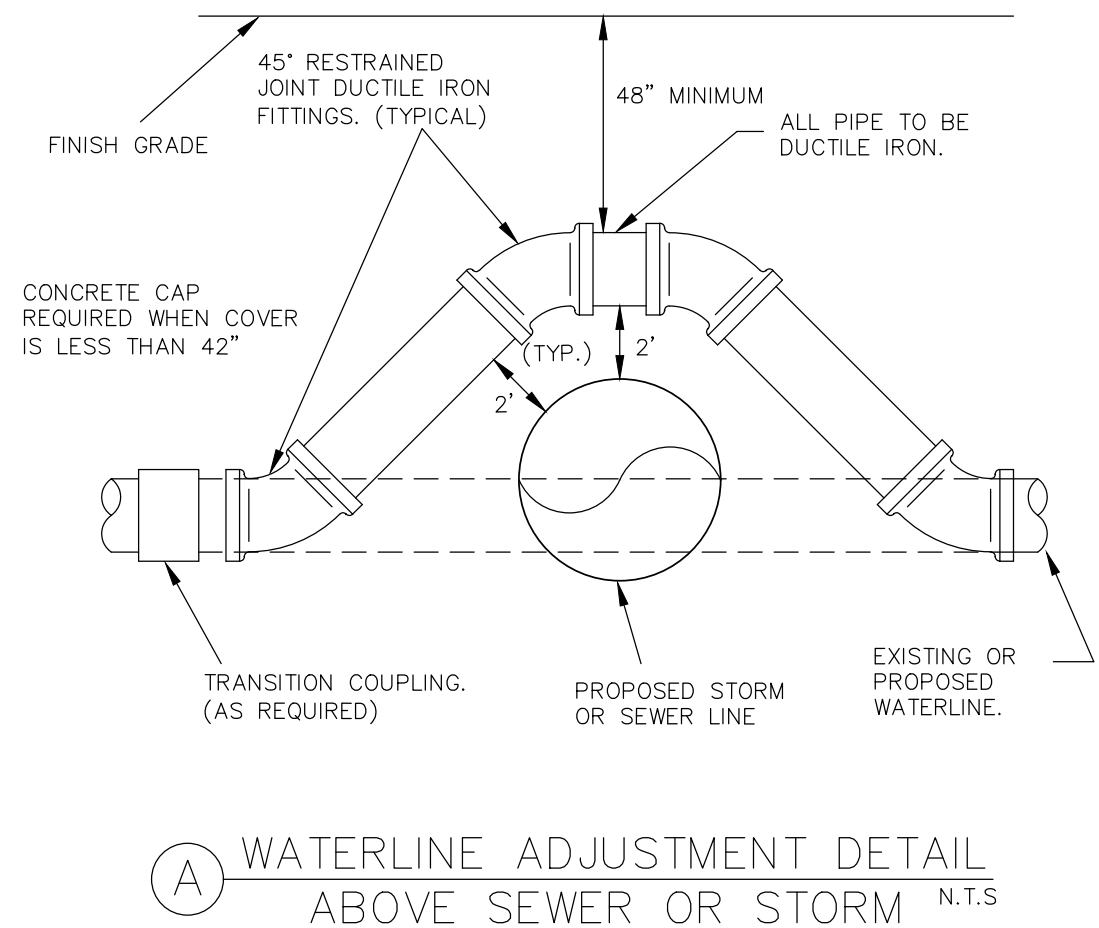
HMT PROJECT NO.:

056.013

SHEET

C7.2

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UTILITY TRENCH COMPACTION

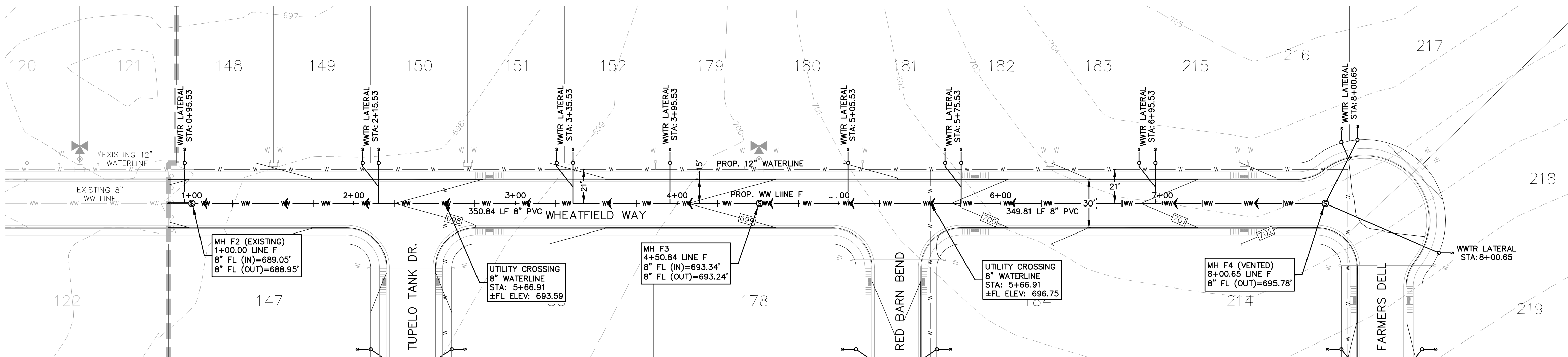
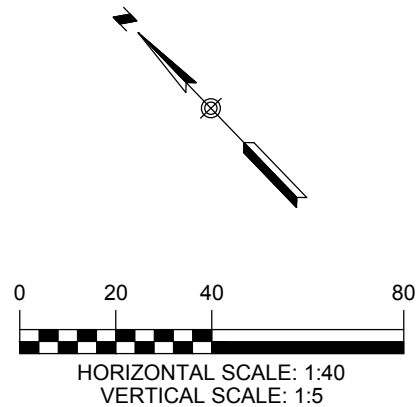
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DEEP TRENCH COMPACTION TESTING

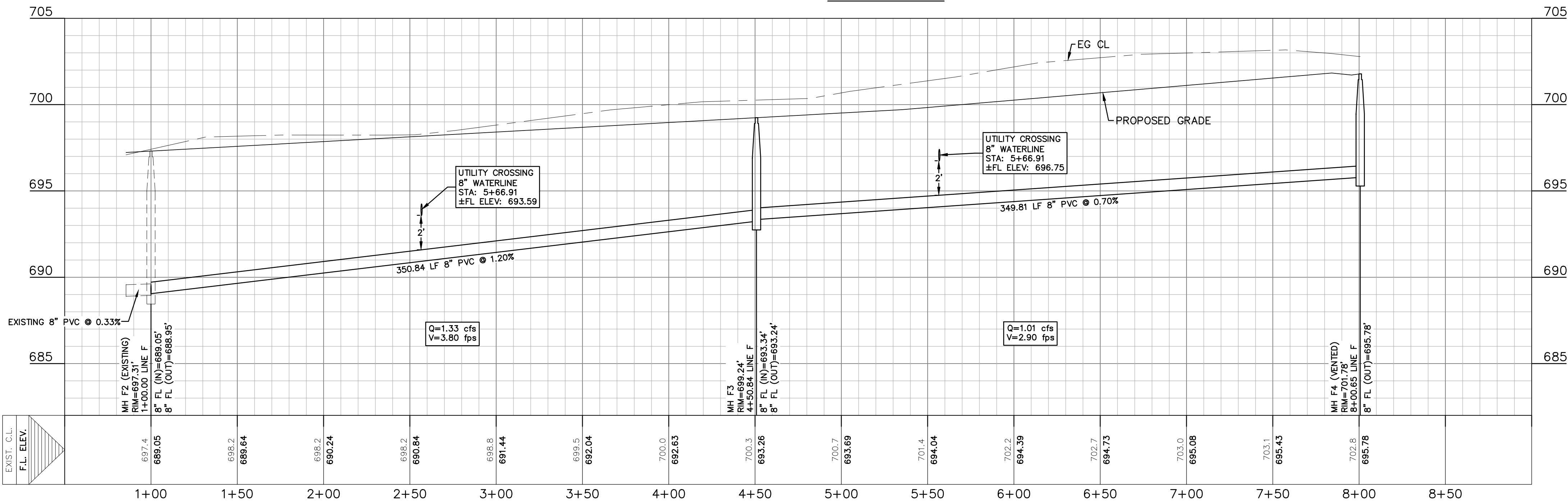
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LINE F
0+50 - 9+00



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05/10/2018

WASTEWATER LINE F PLAN & PROFILE THE SILOS UNIT 3

NO.	REVISION DATE	REVISION DESCRIPTION

DATE: MAY 2018

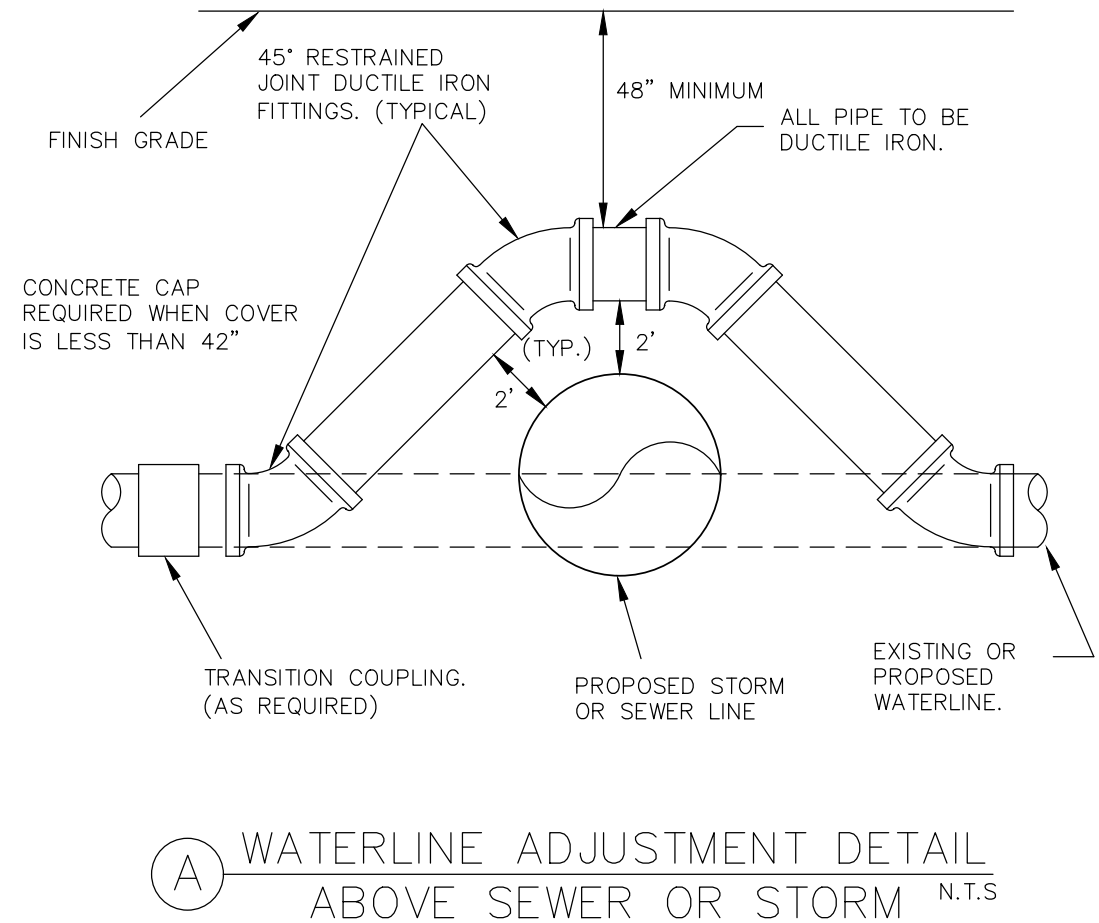
DRAWN BY: MM

DESIGNED BY: AM/MM

REVIEWED BY: SWH/SCH

HMT PROJECT NO.:
056.013

SHEET
C7.3



CONSTRUCTION NOTES:

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TRENCH EXCAVATION SAFETY PROTECTION

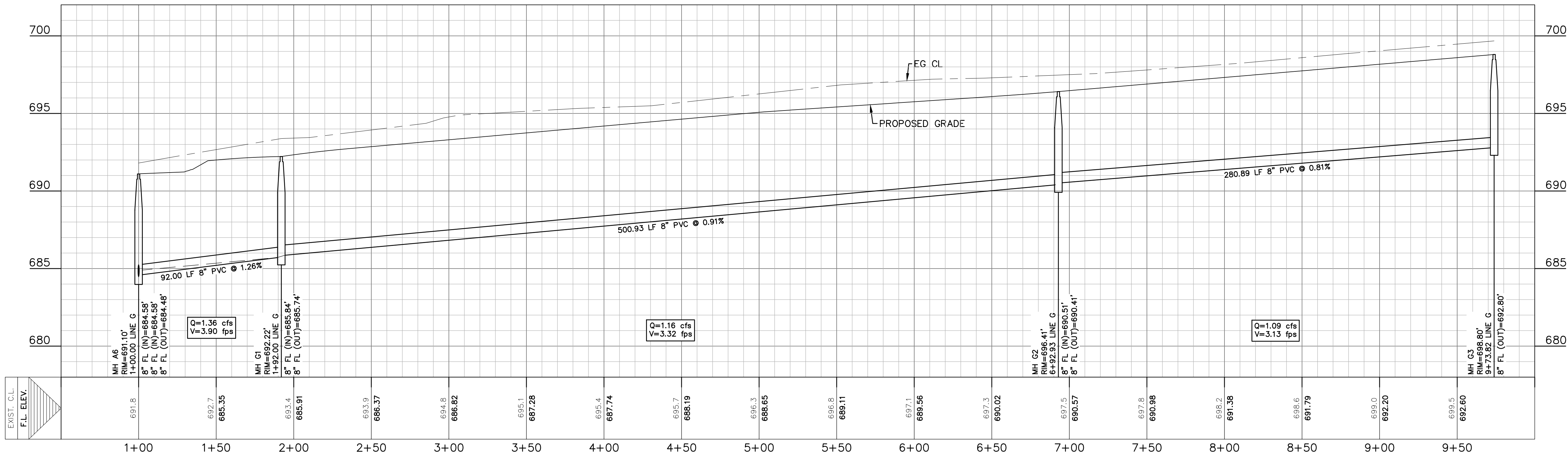
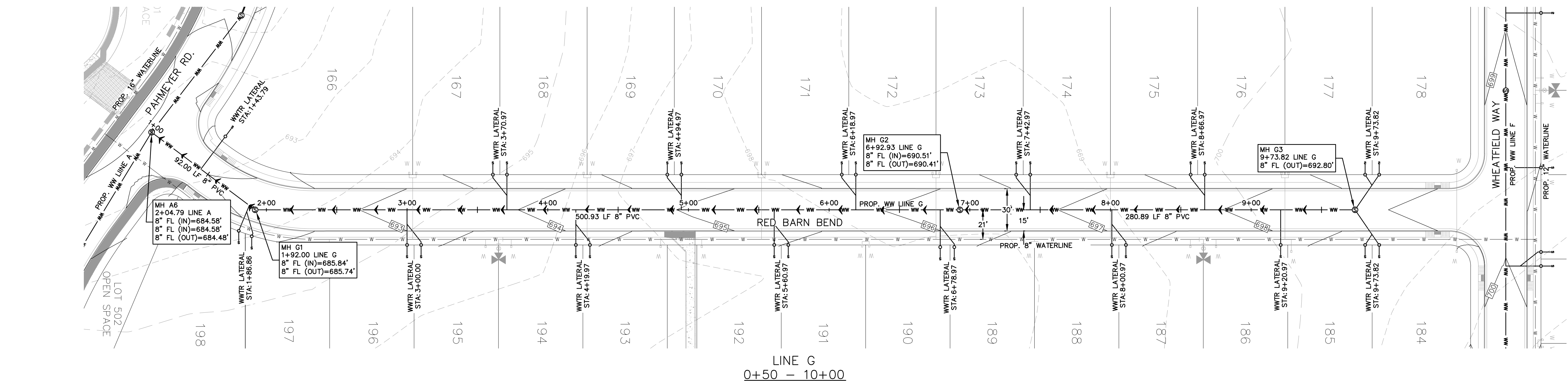
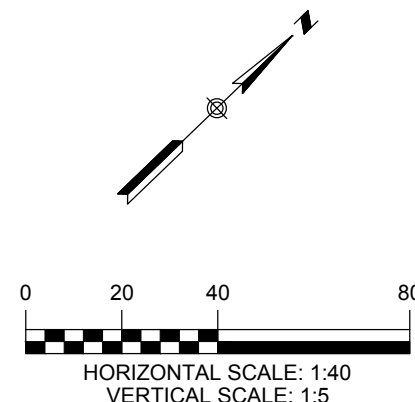
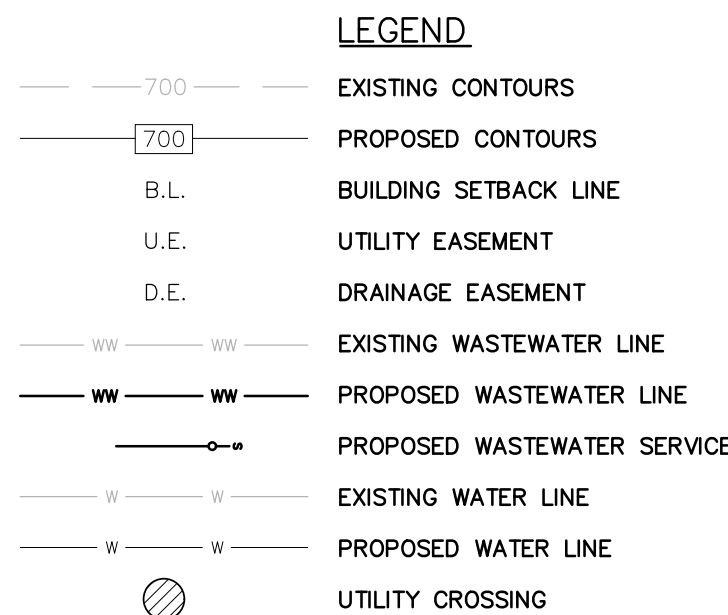
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WASTEWATER LINE G PLAN & PROFILE

THE SILOS
UNIT 3

NO.	REVISION DATE	REVISION DESCRIPTION

DATE: MAY 2018

DRAWN BY: MM

DESIGNED BY: AM/MM

REVIEWED BY: SWH/SCH

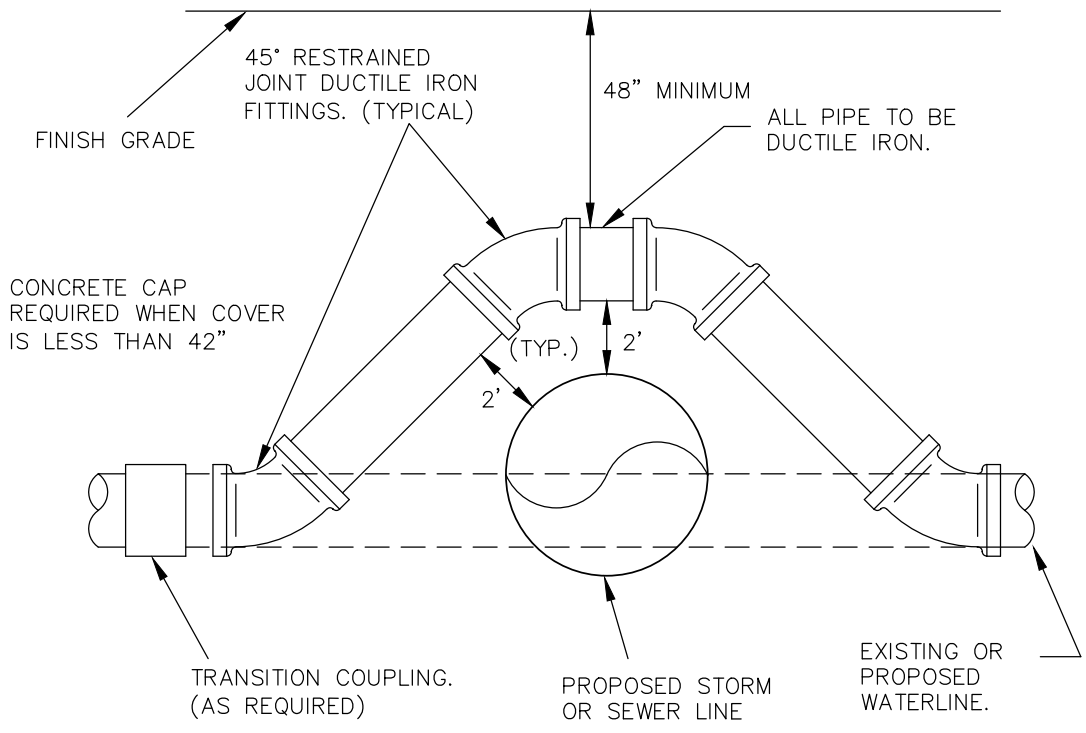
HMT PROJECT NO.: 056.013

SHEET
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05/10/2018

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ENGINEERING & SURVEYING



A WATERLINE ADJUSTMENT DETAIL
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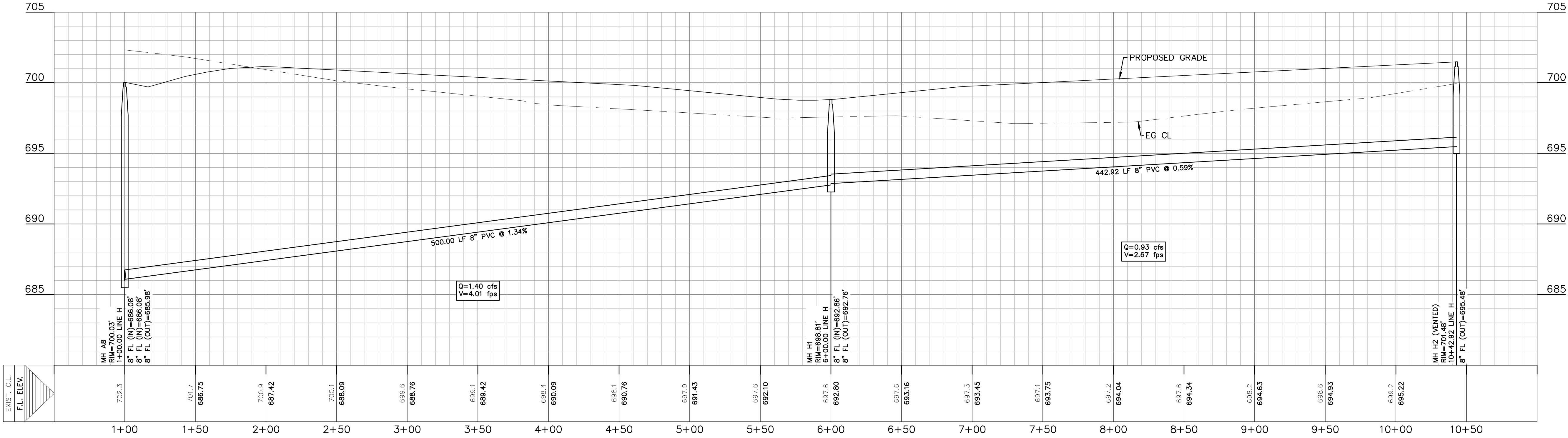
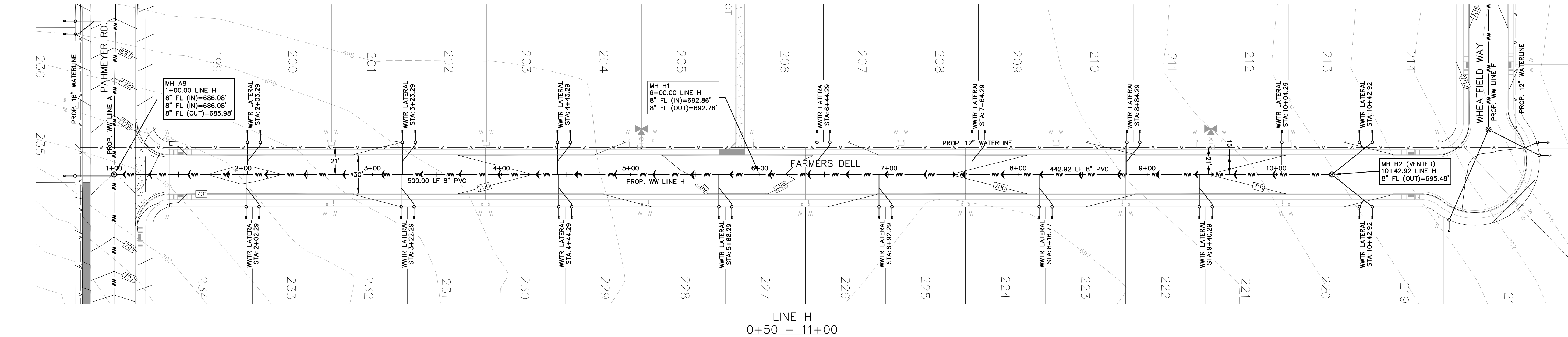
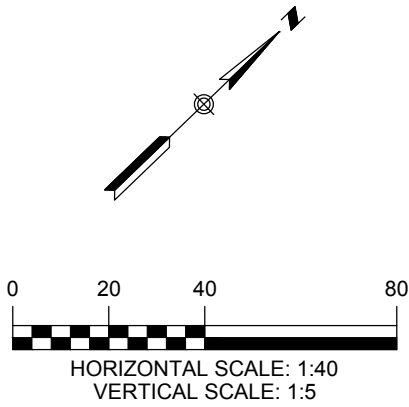
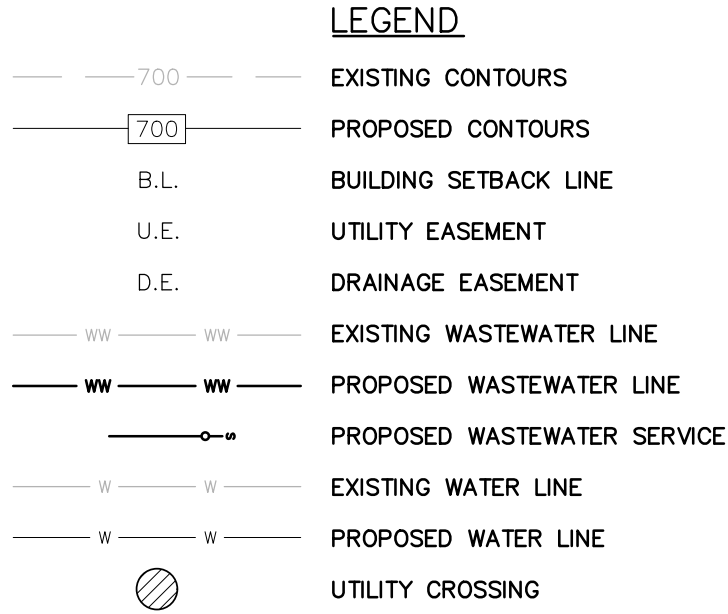
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DATE: MAY 2018

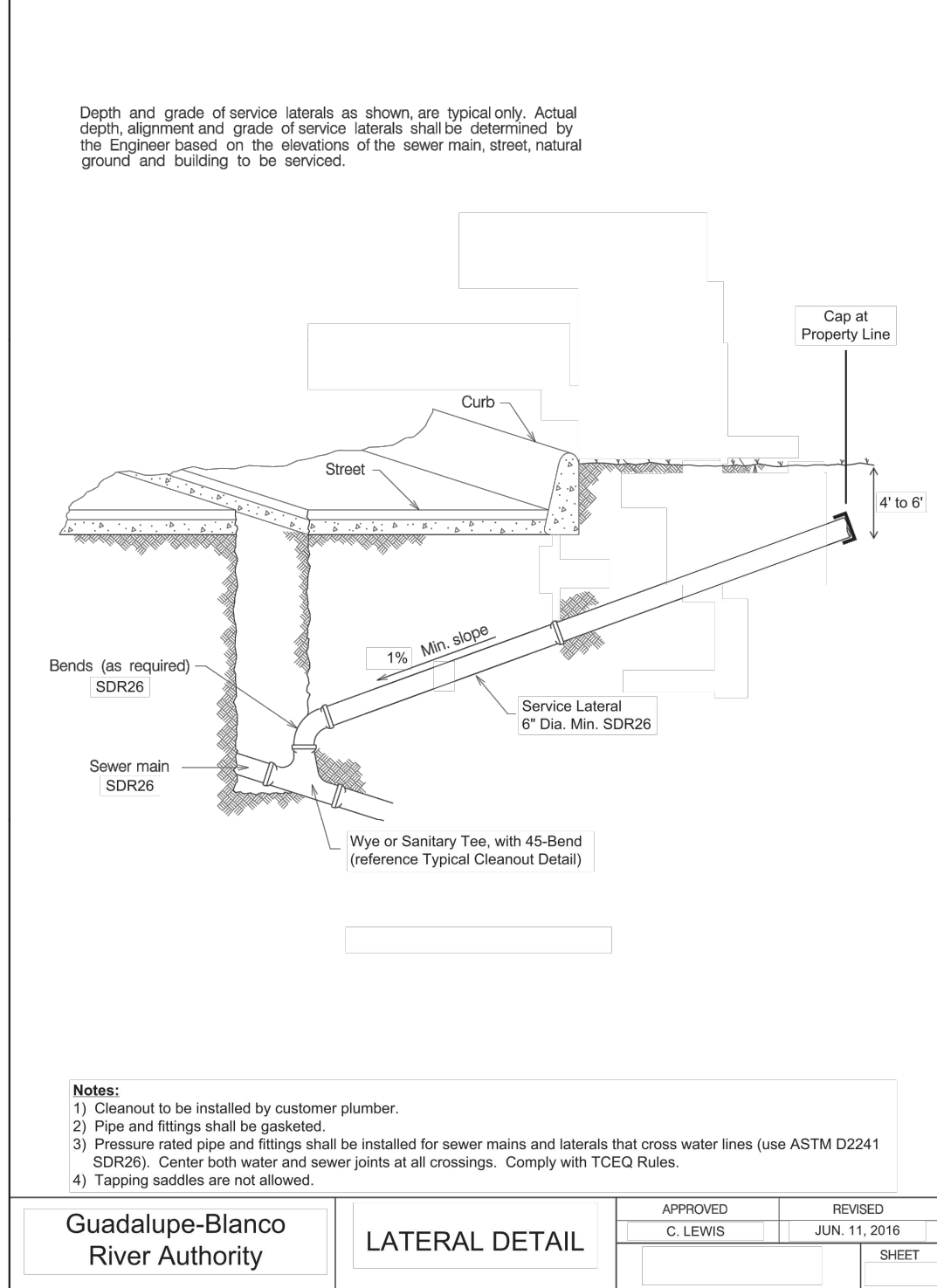
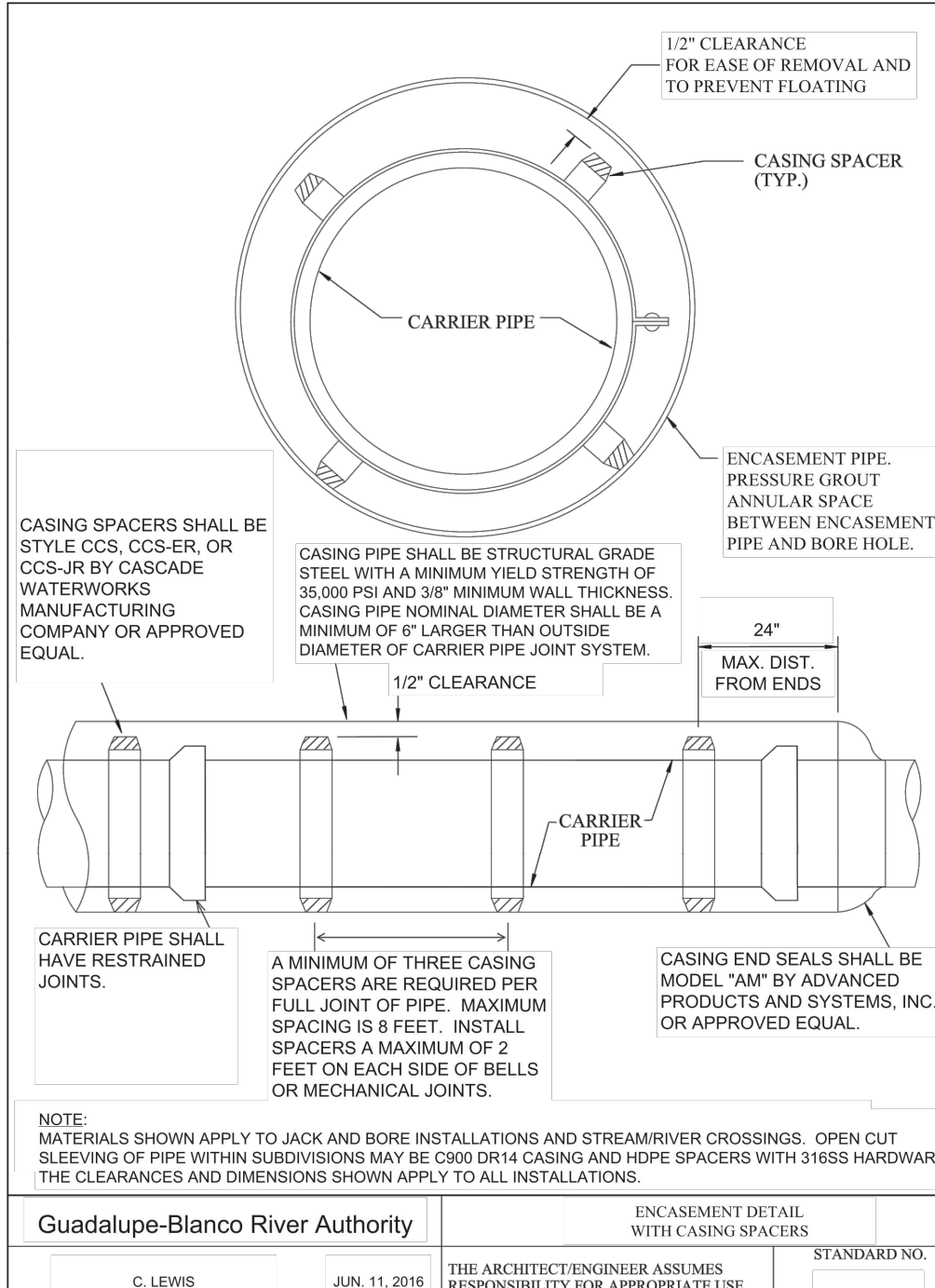
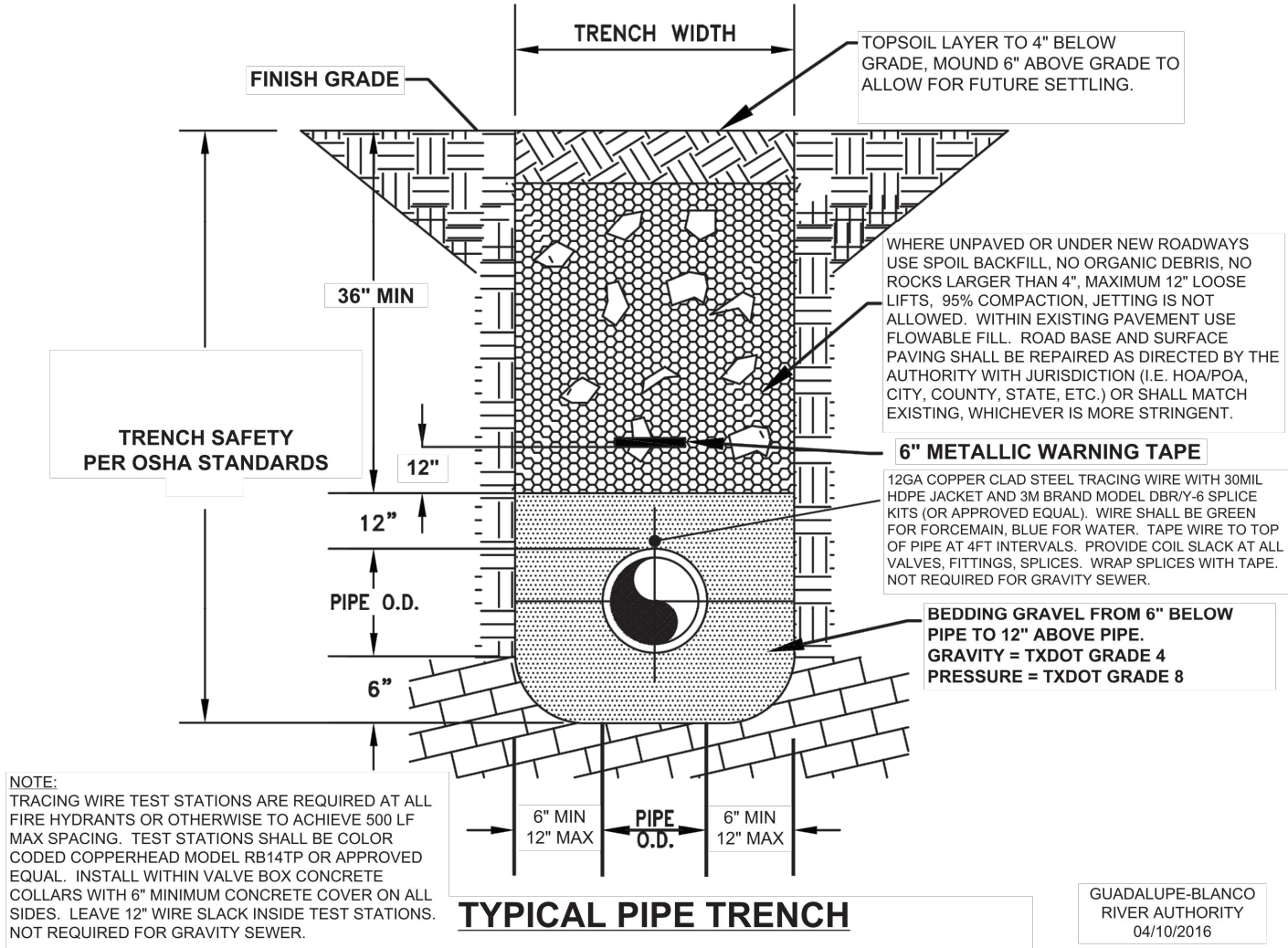
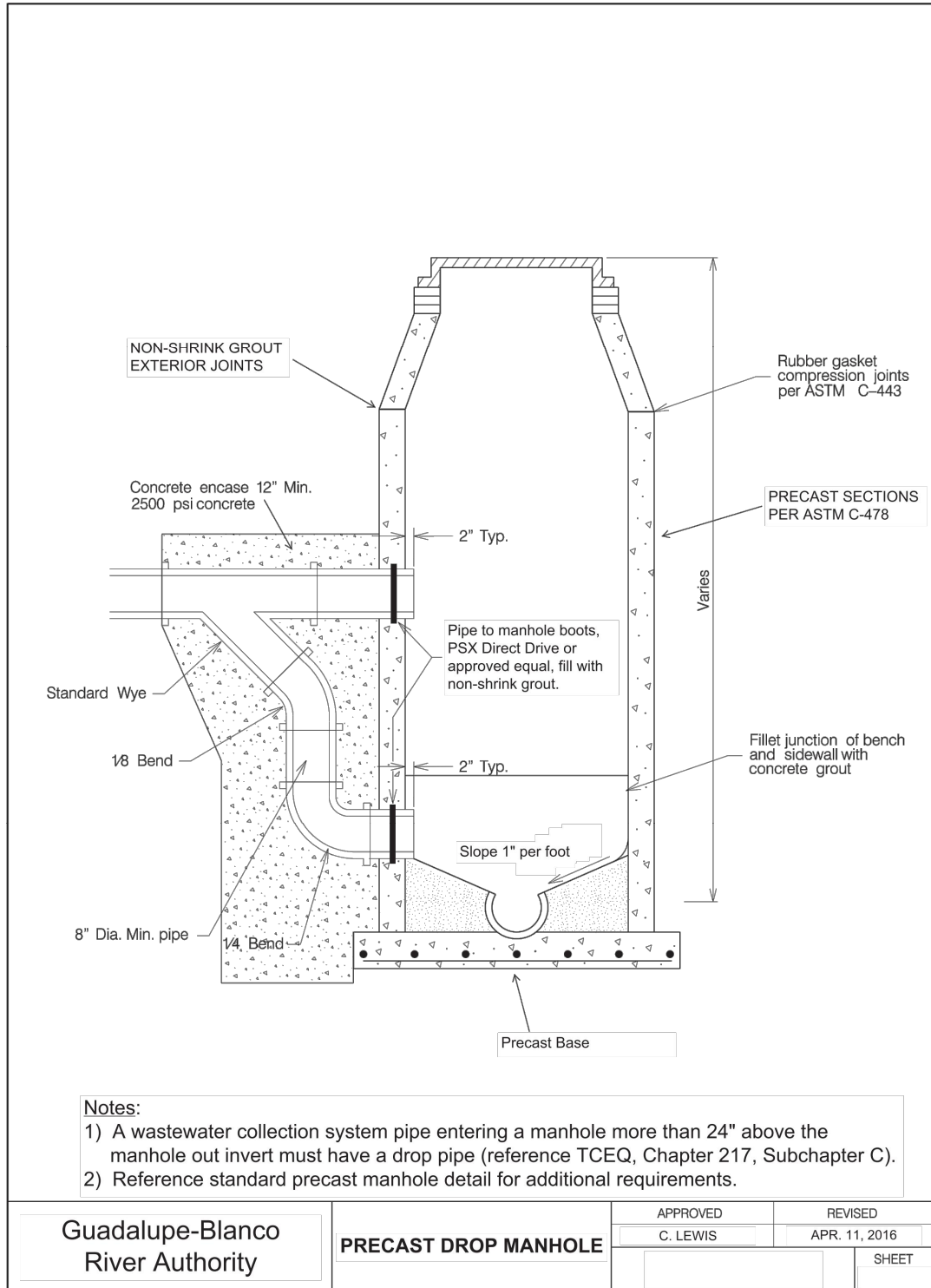
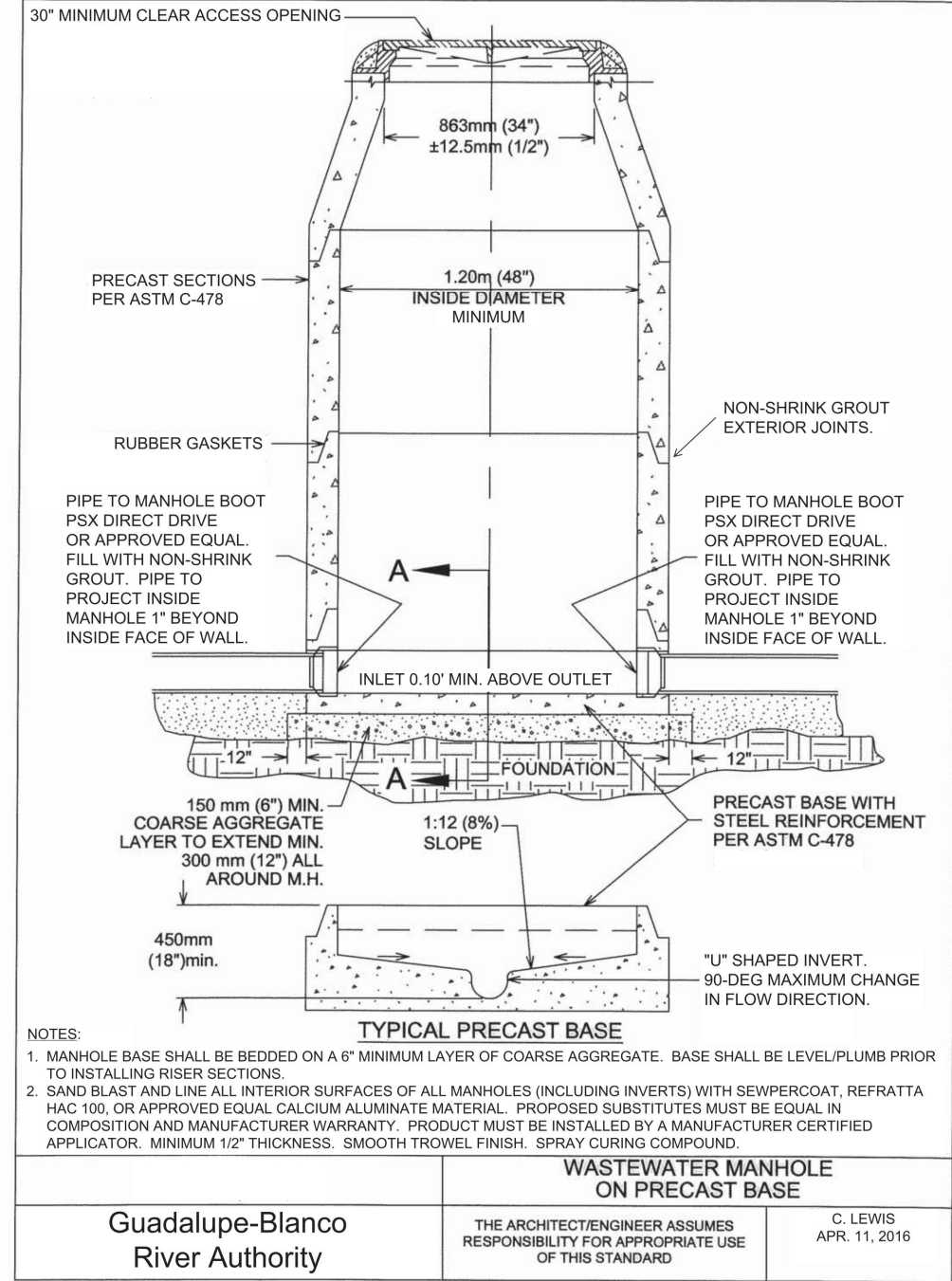
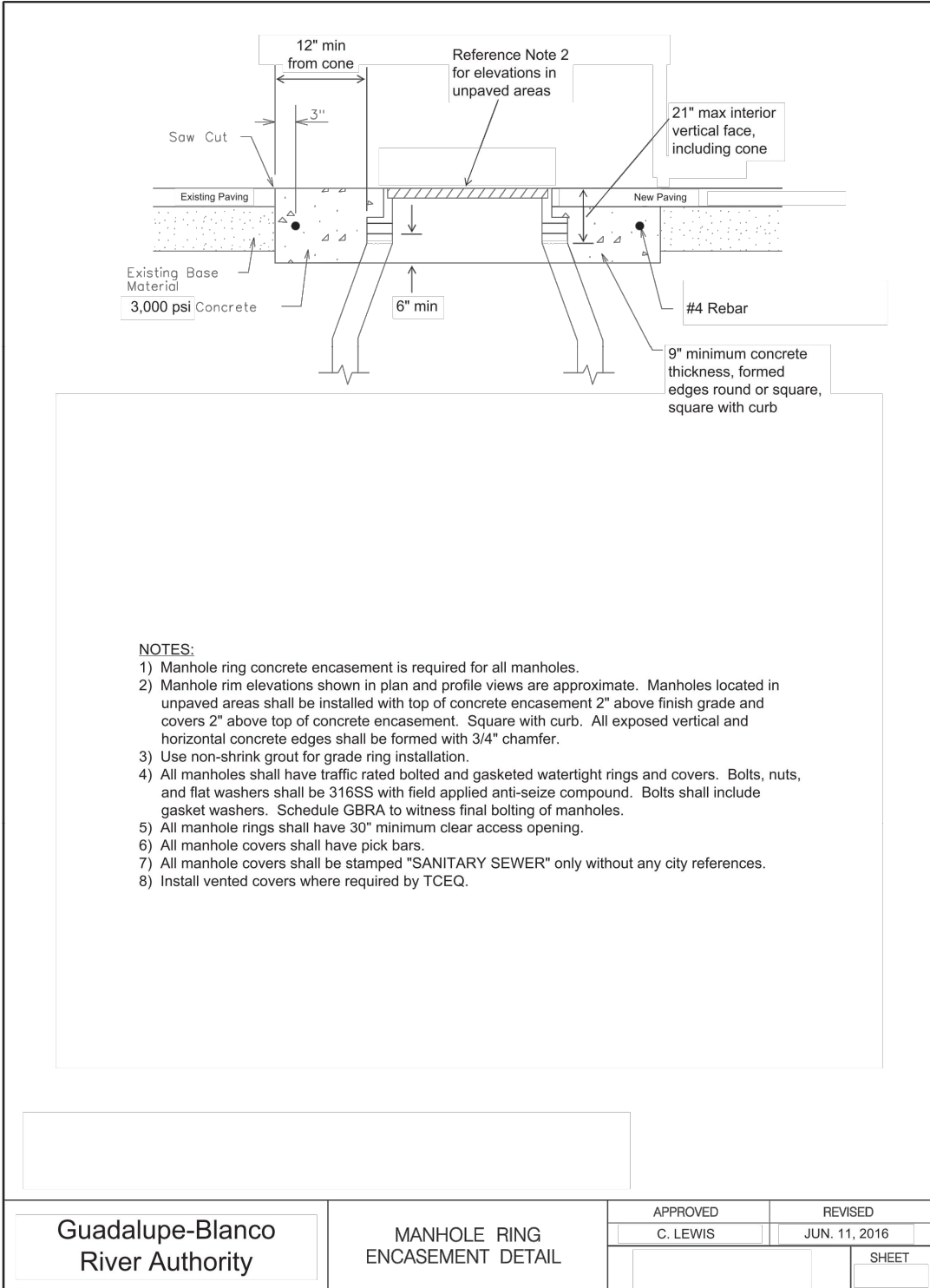
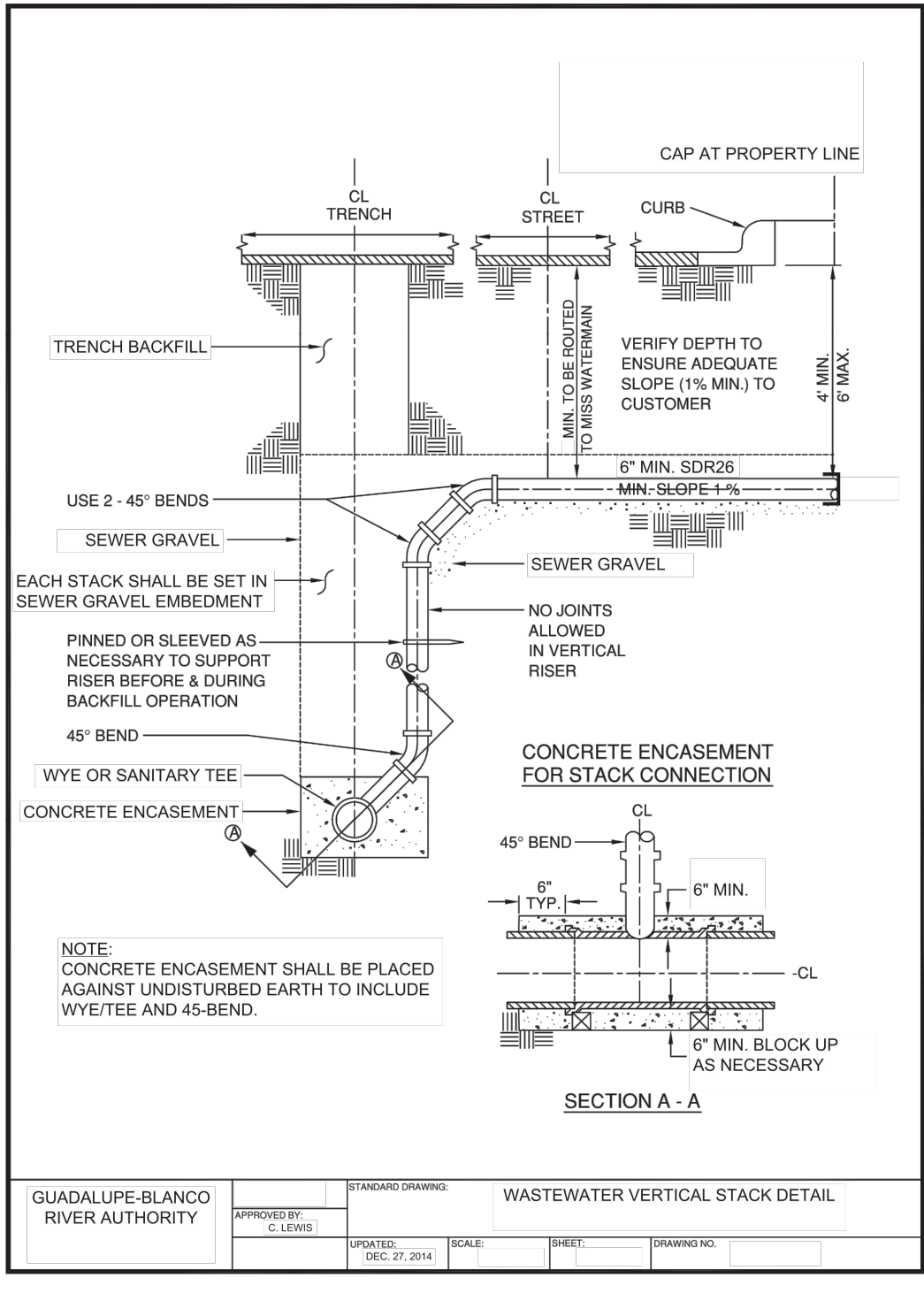
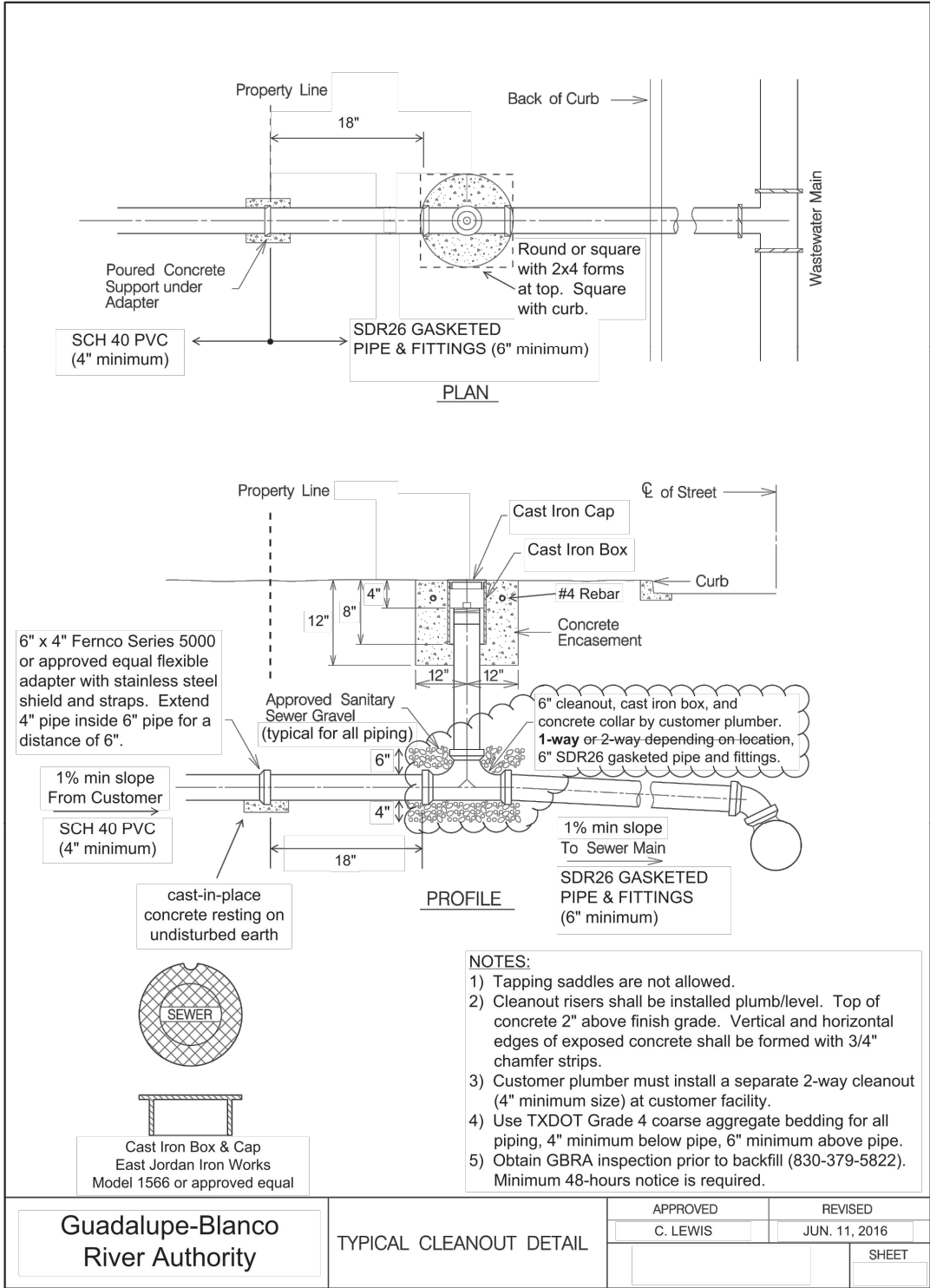
DRAWN BY: MM

DESIGNED BY: AM/MM

REVIEWED BY: SWH/SCH

HMT PROJECT NO.:
056.013

SHEET
C7.5



WASTEWATER DETAILS

THE SILOS UNIT 3

NO.	REVISION	DATE

DATE:	MAY 2018
DRAWN BY:	MM
DESIGNED BY:	AM/MM
REVIEWED BY:	SWH/SCH
HMT PROJECT NO.:	056.013

SHEET C7.6

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05/10/2018