

PROJECT LOCATION MAP

PROJECT BENCHMARK

ELEV: 580.27

ELEV: 578.61

E: 2282484.62 ELEV: 578.92

TXDOT SIGNAL DESIGN GREENSPOINT HEIGHTS UNIT 3C

SEGUIN, TEXAS CIVIL SITE CONSTRUCTION PLANS

BUTTE LAND PARTNERS 130 S. SEGUIN AVENUE, STE 109 NEW BRAUNFELS, TEXAS 78130

October 2023

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. Mallory N. Scates

P.E. Registration No. 134012

PREPARED BY:

ENGINEERING & SURVEYING

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GENERAL NOTES: 1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD. IN ACCEPTING THESE PLANS, THE CITY OF SEGUIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD. 2. IF CONSTRUCTION HAS NOT COMMENCED WITHIN TWO-YEAR OF CITY APPROVAL FOR CONSTRUCTION, THAT APPROVAL IS NO LONGER VALID. 3. THE MOST CURRENT EDITIONS OF THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS AND THE TEXAS

- 4. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE CITY SEGUIN TO SET A PRE-CONSTRUCTION MEETING.
- 5. A 48-HOUR ADVANCED NOTIFICATION IS REQUIRED FOR ALL INSPECTION REQUESTS. 4.1 ALL INSPECTIONS ARE TO BE CALLED IN AT 830-401-2414 OR,
- 4.2 FAXED IN AT 830-386-2513 6. 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

DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES SHALL FOLLOWED FOR ALL CONSTRUCTION EXCEPT AS AMENDED BY THE CITY OF SEGUIN STANDARD

- CONTROL DEVICES MAY BE ORDERED BY THE ENGINEERING REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE. 7. DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE OFFSITE IMPACT OF CONSTRUCTION MUST BE COMPLETED AND IN PLACE PRIOR TO INCREASING RUNOFF FROM THE SITE.
- 8. NO PORTION OF THE SUBDIVISION IS LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREA (100 YR. FLOOD), AS DEFINED BY THE GUADALUPE COUNTY, TEXAS, FIRM PANEL NUMBER 48187C0260F EFFECTIVE DATE 11/02/2007, AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
- 9. THIS PROJECT IS NOT LOCATED WITHIN THE EDWARDS AQUIFER RECHARGE ZONE. 10. GAS UTILITIES ARE NOT INCLUDED IN THE CIVIL CONSTRUCTION PLANS. FINAL GAS UTILITY DESIGN SHALL BE APPROVED BY THE CITY FOR WORK WITHIN PUBLIC RIGHT-OF-WAY.

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.

Sheet List Table

IRAFFIC SIGNAL NUTES

SIGNAL WIRING DETAILS

TRAFFIC SIGNAL ELEVATIONS SIGNING & STRIPING LAYOUT

EXISTING LAYOUT PROPOSED LAYOUT

SIGNAL DETAILS

Sheet Number|Sheet Title

C2.02

C2.04

C2.06

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.

A. CURRENT CITY OF SEGUIN 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 SEGUIN 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

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

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.

ENGINEER, ENGINEER'S DIRECTORS, OFFICERS, EMPLOYEES, OR CONSULTANTS.

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

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 SEGUIN 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 SEGUIN PROJECT MANAGER AND 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.

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 SEGUIN, SUBJECT TO THE GUARANTY OF MATERIAL AND WORKMANSHIP PROVISIONS IN THIS SECTION.

EROSION / SEDIMENTATION CONTROL

DISCHARGED FROM THE SITE.

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.

STRIPPING OF VEGETATION FROM THE PROJECT SITE SHALL BE PHASED SO AS TO EXPOSE THE MINIMUM AREA TO SOIL EROSION FOR THE SHORTEST PERIOD OF TIME.

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

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 FROSION 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

SPRINGS HILL WATER SUPPLY CORPORATION (WATER) (830) 379-7683 CITY OF SEGUIN (SEWER) (830) 401-2222 GUADALUPE VALLEY ELECTRIC CORPORATION (ELECTRIC) (830) 857-1200 TIME WARNER CABLE (830) 625-3408(830) 303-1333 TEXAS ONE CALL SYSTEM (800) 245-4545

DUE TO FEDERAL REGULATIONS TITLE 49, PART 192(8), 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 GVEC UTILITIES PLANS FOR FINAL ELECTRICAL LINE DESIGNS AND LAYOUT.

REVISION DATE: 3/31/11 WASTEWATER NOTES

1. THE CONTRACTOR SHALL MAINTAIN SERVICE TO EXISTING WASTEWATER SYSTEM AT ALL TIMES DURING CONSTRUCTION.

2. A MINIMUM OF 8" WASTEWATER PIPE AND FITTING (P.V.C. SDR-26, ASTM, D-3034, D-3212, F-477) ARE REQUIRED ON NEW INSTALLATION. 3. ALL RESIDENTIAL WASTEWATER SERVICE LATERALS SHALL BE EXTENDED TO THE PROPERTY LINE AND A

CLEANOUT SHALL BE INSTALLED AT THE PROPERTY LINE. SERVICES TO LOTS WILL EXTEND FOUR (4) FEET PAST THE UNDERGROUND ELECTRIC CONDUIT IF ELECTRIC IS INSTALLED IN THE FRONT EASEMENT. 4. PIPE BEDDING OF WASTEWATER LINES SHALL BE MANUFACTURED No. 67 CRUSHED STONE.

5. SECONDARY BACKFILL OF WASTEWATER LINES SHALL GENERALLY CONSIST OF MATERIALS REMOVED FROM THE TRENCH AND SHALL BE FREE FROM BRUSH, DEBRIS AND TRASH, NO ROCKS OR STONES HAVING ANY DIMENSION LARGER THAN 6 INCHES AT THE LARGEST DIMENSION.

6. ALL WASTEWATER PIPES SHALL HAVE COMPRESSION OR MECHANICAL JOINTS AS PER 30 TAC §217.53 (C)

7. FOR WASTEWATER LINES LESS THAN 24" IN DIAMETER, SELECT INITIAL BACKFILL MATERIAL SHALL BE PLACED IN TWO LIFTS. 7.1. THE FIRST LIFT SHALL BE SPREAD UNIFORMLY AND SIMULTANEOUSLY ON EACH SIDE AND UNDER THE SHOULDERS OF THE PIPE TO THE MID POINT OR SPRING LINE OF THE PIPE.

7.2. 8.2. THE SECOND LIFT SHALL BE PLACED TO A DEPTH AS SHOWN ON THE PIPE BACKFILL DETAIL. FOR PIPES LARGER THAN 24", 12" MAXIMUM LIFTS SHALL BE USED. 8. ALL MANHOLES MUST BE WATER TIGHT, EITHER MONOLITHIC, CAST-IN-PLACE CONRETE STRUCTURES OR PREFABRICATED MANHOLES SPECIFICALLY APPROVED BY CITY OF SEGUIN. THE MANHOLES SHALL HAVE WATER-TIGHT RINGS AND COVERS. WHEREEVER THEY ARE WITHIN THE 100 YEAR FLOODPLAIN, THE

MANHOLE COVERS SHALL BE BOLTED. EVERY THIRD MANHOLE IN SEQUENCE SHALL HAVE AN ALTERNATE MEANS OF VENTING. 30 TAC \$213.5 (C)(3)(A) AND 30 TAC \$217.55 (O) 9. ALL MANHOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE RING IS TWO INCHES (2") ABOVE

SURROUNDING GROUND EXCEPT WHEN LOCATED IN PAVED AREA. IN PAVED ARES, THE MANHOLE RING SHALL BE FLUSH WITH PAVEMENT. 10. ALL NEW MANHOLES, UNLESS APPROVED BY CITY ENGINEERING, ARE TO HAVE COVERS WITH 32" OPENINGS.

11. WASTEWATER PIPE CONNECTIONS TO PRE—CAST MANHOLES WILL BE COMPRESSION JOINTS OR MECHANICAL "BOOT TYPE" JOINT AS APPROVED BY CITY OF SEGUIN.

12. WASTEWATER LINES SHALL BE TESTED FROM MANHOLE TO MANHOLE. 13. IN AREAS WHERE A NEW WASTEWATER MANHOLE IS TO BE CONSTRUCTED OVER AN EXISTING WASTEWATER SYSTEM, IT SHALL BE THE CONTACTOR'S RESPONSIBILITY TO TEST THE EXISTING MANHOLES BEFORE CONSTRUCTION. AFTER THE PROPOSED MANHOLE(S) HAS BEEN BUILT, THE CONTRACTOR SHALL RE-TEST THE EXISTING SYSTEM TO THE SATISFACTION OF THE CONSTRUCTION INSPECTOR. (NO SEPARATE PAY

14. WHERE THE MINIMUM 9 FOOT SEPARATION DISTANCE BETWEEN WASTEWATER LINES AND WATER LINES / MAINS CANNOT BE MAINTAINED, THE INSTALLATION OF WASTEWATER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ. THE WASTEWATER LINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING THE ASTM SPECIFICATION FOR BOTH PIPES AND JOINTS OF 150 PSI AND SHALL BE IN

15. NO TESTING WILL BE PERFORMED PRIOR TO 30 DAYS FROM COMPLETE INSTALLATION OF THE WASTEWATER LINES. THE FOLLOWING SEQUENCE WILL BE STRICTLY ADHERED TO:

15.1. PULL MANDREL 15.2. PERFORM AIR TEST

15.3. CLEANING OF ANY DEBRIS

15.4. FLUSHING OF SYSTEM

15.5. TV INSPECTION (WITHIN 72 HOURS OF FLUSHING)

16. A MINIMUM OF 5 FEET OF COVER IS TO BE MAINTAINED OVER THE WASTEWATER MAIN AND LATERALS AT

SUBGRADE 17. WASTEWATER MAIN CONNECTIONS MADE DIRECTLY TO EXISTING MANHOLES WILL REQUIRE SUCCESSEUL

TESTING OF THE MANHOLE IN ACCORDANCE WITH CITY OF SEGUIN CONSTRUCTION POLICY MANUAL. 18. TCEQ AND EPA REQUIRE EROSION AND SEDIMENTATION CONTROL FOR CONSTRUCTION OF WASTEWATER COLLECTION SYSTEMS. DEVELOPER OR AUTHORIZED REPRESENTATIVE SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AS NOTES ON THE PROJECT'S PLAN AND PROFILE SHEETS. ALL TEMPORARY

EROSION AND SEDIMENTATION CONTROLS SHALL BE REMOVED BY THE CONTRACTOR AT FINAL ACCEPTANCE

OF THE PROJECT BY CITY OF SEGUIN. WATER NOTES REVISED 03/22

SHWSC GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THE PROJECT SHALL BE APPROVED BY SHWSC AND COMPLY WITH ALL APPLICABLE STANDARDS AND REGULATIONS.

2. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK UNTIL WRITTEN APPROVAL IS OBTAINED FROM SHWSC. WORK COMPLETED BY THE CONTRACTOR, WHICH HAS NOT RECEIVED AN APPROVAL WILL BE SUBJECT TO REMOVAL AND REPLACEMENT BY AND AT THE EXPENSE OF THE CONTRACTOR AT THE PREROGATIVE OF SHWSC.

3. THE DEVELOPER DEDICATES THE WATER MAINS UPON COMPLETION BY THE DEVELOPER AND ACCEPTANCE BY SHWSC. SHWSC WILL OWN AND MAINTAIN SAID WATER MAINS WHICH ARE LOCATED WITHIN SAID SUBDIVISION (AS APPLICABLE).

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

5. CONTRACTOR AND / OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION, ANY DAMAGES DONE TO EXISTING FENCES, CURBS, STREETS, DRIVEWAYS, LANDSCAPING AND STRUCTURES, AND EXISTING UTILITIES (NOT ADJUSTED ON PLANS). COST OF RESTORATIONS, IF ANY, SHALL BE THE CONTRACTOR'S ENTIRE EXPENSE. 7. THE CONTRACTOR SHALL AVOID CUTTING ROOTS LARGER THAN ONE INCH IN DIAMETER WHEN EXCAVATING

NEAR EXISTING TREES. EXCAVATION IN VICINITY OF TREES SHALL PROCEED WITH CAUTION.

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

9. NO EXTRA PAYMENT SHALL BE ALLOWED FOR WORK CALLED FOR ON THE PLANS BUT NOT INCLUDED ON THE BID SCHEDULE. THIS INCIDENTAL WORK WILL BE REQUIRED AND SHALL BE INCLUDED UNDER THE PAY ITEM TO WHICH IT RELATES.

10. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL WASTE MATERIALS UPON PROJECT COMPLETION. THE CONTRACTOR SHALL NOT PERMANENTLY PLACE ANY WASTE MATERIALS IN THE 100-YEAR FLOOD PLAIN WITHOUT FIRST OBTAINING AN APPROVED FLOOD PLAIN DEVELOPMENT PERMIT. 11. THE CONTRACTOR SHALL NOT PLACE ANY MATERIALS ON THE RECHARGE ZONE OF THE EDWARDS AQUIFER

WITHOUT AN APPROVED WATER POLLUTION ABATEMENT PLAN FROM THE TCEQ 31 TAC 313.4 AND 31 TAC 12. BARRICADES AND WARNING SIGNS SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL

DEVICES" AND SHALL BE LOCATED TO PROVIDE MAXIMUM PROTECTION TO THE PUBLIC AS WELL AS CONSTRUCTION PERSONNEL AND EQUIPMENT WHILE ALWAYS PROVIDING CONTINUOUS TRAFFIC FLOW DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL DEVICES DURING CONSTRUCTION. 13. CONTRACTOR IS REQUIRED TO VERIFY PROJECT ELEVATIONS. THE TERM "MATCH EXISTING" SHALL BE

UNDERSTOOD TO SIGNIFY BOTH HORIZONTAL AND VERTICAL ALIGNMENT.

14. THE LOCATION OF UTILITIES, EITHER UNDERGROUND OR OVERHEAD, SHOWN WITHIN THE RIGHT OF WAY ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR BEFORE BEGINNING CONSTRUCTION OPERATIONS. 15. OSHA REGULATIONS PROHIBIT OPERATIONS THAT WILL BRING PERSONS OR EQUIPMENT WITHIN 10 FEET OF AN ENERGIZED LINE. WHERE WORKMEN AND/OR EQUIPMENT HAVE TO WORK CLOSE TO AN ENERGIZED ELECTRICAL LINE, THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL POWER COMPANY INVOLVED AND MAKE WHATEVER ADJUSTMENTS NECESSARY TO ENSURE THE SAFETY OF THOSE WORKMEN.

16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE UTILITY SERVICE LINES AS REQUIRED FOR CONSTRUCTION. UTILITY COMPANIES ARE ALSO PREVIOUSLY MENTIONED IN "UTILITY COMPANY NOTIFICATION".

17. DUE TO FEDERAL REGULATIONS TITLE 49, PART 192 (8), GAS COMPANIES MUST ALWAYS MAINTAIN ACCESS TO GAS VALVES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE

18. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE TRAFFIC CONTROL AND WILL BE RESPONSIBLE FOR FURNISHING ALL TRAFFIC CONTROL DEVICES, AND FLAGGERS. THE CONSTRUCTION METHODS SHALL BE CONDUCTED TO PROVIDE THE LEAST POSSIBLE INTERFERENCE TO TRAFFIC TO ALWAYS PERMIT THE CONTINUOUS CURB CUT DUE TO CONSTRUCTION OF NEW RIGHT-OF-WAY CONSTRUCTION MOVEMENT OF THE TRAFFIC IN ONE DIRECTION. THE CONTRACTOR SHALL CLEAN UP AND REMOVE FROM THE WORK AREA ANY LOOSE MATERIAL RESULTING FROM CONTRACT OPERATIONS AT THE END OF EACH WORKDAY.

19. PRIOR TO ORDERING MATERIALS TO BE USED IN CONSTRUCTION, CONTRACTOR SHALL PROVIDE SHWSC WITH FOUR (4) COPIES OF THE SOURCE, TYPE, GRADATION, MATERIAL SPECIFICATION DATA AND / OR SHOP DRAWINGS, AS APPLICABLE, TO SATISFY THE REQUIREMENTS OF THE FOLLOWING ITEMS AND ALL MATERIAL ITEMS REFERRED TO IN THESE LISTED ITEMS: A. WATER MAINS AND SERVICES

20. NO METER BOXES, VALVES, TO BE SET IN DRIVEWAYS OR SIDEWALKS. ANY METER BOXES SET IN THESE AREAS WILL BE RELOCATED AT CONTRACTOR'S AND/OR DEVELOPER'S EXPENSE

21. WHERE THE MINIMUM 9-FOOT SEPARATION DISTANCE BETWEEN SEWER LINES AND WATER LINES / MAINS CANNOT BE MAINTAINED, THE INSTALLATION OF WATER LINES SHALL BE IN STRICT ACCORDANCE WITH TCEQ.

22. CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURA DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA NO VALVES, HYDRANTS, ETC. SHALL BE CONSTRUCTED WITHIN CURBS, SIDEWALKS, OR DRIVEWAYS. 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

23. UTILITY TRENCH COMPACTION WITH STREET RIGHT-OF-WAY.

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

B. FILL MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED TWELVE INCHES (12") LOOSE. C. EACH LAYER OF MATERIAL SHALL BE COMPACTED AS SPECIFIED AND TESTED FOR DENSITY AND MOISTURE MARKINGS AT FINAL APPLICATION. IN ACCORDANCE WITH TEST METHODS TEX-113-E, TEX-114-E, TEX-115-E. D. THE NUMBER AND LOCATION OF REQUIRED TESTS SHALL BE DETERMINED BY THE GEO-TECHNICAL ENGINEER SIGNAGE NOTES AND APPROVED BY SHWSC.

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

CONSTRUCTION NOTES

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

DRAINAGE IMPROVEMENTS SUFFICIENT TO MITIGATE THE IMPACT OF CONSTRUCTION SHALL BE INSTALLED PRIOR TO INCREASING RUNOFF FROM THE SITE.

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.

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 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 SEGUIN 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.

<u>ITEM 340</u> 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, 2004 OR LATEST EDITION. THE CITY OF SEGUIN 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 SEGUIN.

THE ASPHALTIC CONCRETE SURFACE COURSE SHALL BE PLANT MIXED, HOT LAID TYPE "D" MEETING THE SPECIFICATION REQUIREMENTS OF 2004 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 GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OFSEGUIN STREET INSPECTOR. AT A MINIMUM, TESTS SHALL BE TAKEN EVERY 100LF FOR EACH LIFT UPON COMPLETION OF TESTING THE GEO-TECHNICAL ENGINEER SHALL PROVIDE THE CITY OF SEGUIN STREET INSPECTOR WITH ALL TESTING DOCUMENTATION AND A CERTIFICATION STATING THAT THE PLACEMENT OF FILL MATERIAL HAS BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

(INDICATE THE 2 OPTIONS ON THE CONSTRUCTION PLANS).

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

CONSTRUCTION STABILIZED ENTRANCE

SAWCUT CURB FOR CONSTRUCTION ENTRANCE.

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

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

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

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

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) -

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

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 SEGUIN WILL INSPECT ALL SIGNS AT FINAL INSPECTION.

SEQUENCE OF CONSTRUCTION

TXDOT TRAFFIC STANDARDS D & OM (1 - 5) - 10.

1. INSTALL EROSION CONTROLS PER APPROVED PLAN. 2. TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED WEEKLY AND PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED. CONTRACTOR/OWNER SHALL

PROVIDE A CONTACT NAME AND NUMBER FOR EROSION CONTROL ISSUES. 3. CONDUCT DEMOLITION ACTIVITIES, IF APPLICABLE.

4. CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.

5. CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION. 6. CONSTRUCT DEVELOPMENT PER APPROVED PLANS.

7. INSTALL STREETSCAPE AND/OR LANDSCAPING IMPROVEMENTS.

8. CONTRACTOR TO VEGETATE ANY DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN OF 70% VEGETATION PRIOR TO COMPLETION 9. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

10. TPDES REQUIREMENTS - DISTURBED AREAS ON WITCH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY WILL BEGIN AGAIN WITHIN 21 DAYS

SEQUENCE OF CONSTRUCTION FOR TRANSFER OF DRAINAGE DETENTION PONDS

1. CONSTRUCT CHANNEL C AND DETENTION PONDS, 2. CONSTRUCT CHANNEL B AND CULVERT B.

3. CONSTRUCT LEVEL SPREADER A, CHANNEL A, AND CHANNEL 4

4. CONSTRUCT CULVERT A, CHANNEL 2, AND ROADWAY.

Z Ш (7)

September 22

DRAWN BY:

REVIEWED BY: JMP HMT PROJECT NO .: 032.067

DESIGNED BY:

TION GENERAL NOTES

AND CONSTRUCTION WILL PROVIDE FOR PRESERVING ALL EXISTING FEATURES IN OR NEAR OF WAY BEING AFFECTED BY THE WIDENING. THIS INCLUDES BUT IS NOT LIMITED TO, Y GATE SET-BACKS, RELOCATION OF ELECTRONIC PRIVATE PROPERTY GATES. MAILBOX 30XES AND SUPPORTS, CATTLE GUARDS, ROADWAY SIGNING, EXISTING RIP-RAP OR OTHER ION CONTROL FEATURES, DIVERSIONARY BERMS, SWALES, DITCHES, AMOUNT AND F DRIVEWAY FLARES AND DRIVEWAY CENTERLINE PROFILE, METAL BEAM GUARD FENCE AND ETC. EXISTING DRIVEWAY CULVERTS AND SAFETY END TREATMENTS IF EFFECTED BY G WILL BE RECONSTRUCTED TO PRESERVE EXISTING FRONT SLOPE RATES. THE ITEMS THAT EFFECT EXISTING PRIVATE PROPERTY ACCESS, MAIL DELIVERY, ETC. IS THE F THE DEVELOPER. THE WRITTEN CONCURRENCE OF ANY EFFECTED PROPERTY OWNERS FOR FECTING THEIR DRIVEWAYS OR MAILBOX TURNOUTS MUST BE OBTAINED AND PROVIDED TXDOT DRIVEWAY PERMITS BEING ISSUED.

I STATE RIGHT OF WAY, THE DEVELOPER IS RESPONSIBLE FOR COORDINATION OF, OBTAINING) COMPLYING WITH ANY AND ALL STATE AND FEDERAL REGULATORY AGENCIES AND ALL RULES AND REGULATIONS PERTAINING TO THE REGULATION OF DRAINAGE. PRESERVATION SOURCES, NATURAL RESOURCES AND THE ENVIRONMENT. THE DEVELOPER IS RESPONSIBLE IF THE PROJECT IS IN AN ENVIRONMENTALLY SENSITIVE AREA SUCH AS WITHIN THE NTRIBUTING ZONE OF PROTECTED AQUIFERS, AND ACT IN ACCORDANCE WITH ALL RESOURCE

CZP OR WPAP ON FILE WITH TCEQ, THE DEVELOPER IS RESPONSIBLE FOR AMENDING TXDOT'S 3 TCEQ APPROVAL AND PROVIDING TXDOT WITH THE APPROVED AMENDED PERMIT. THE WILL ADDRESS THE RELOCATION OF ANY TXDOT PERMANENT BMP'S INCLUDING VEGETATIVE AT MAY BE IMPACTED BY WORK DONE WITHIN TXDOT ROW. "

OT HAVE A CZP OR WPAP ON FILE WITH TCEQ, ANY PERMANENT BMP'S INCLUDING R STRIPS, THAT MAY BE REQUIRED IN ORDER TO TREAT ADDITIONAL IMPERVIOUS COVER ROW WILL BE LOCATED IN PRIVATE PROPERTY AND THE DEVELOPER WILL PROVIDE TXDOT TCEQ APPROVAL OF THE ADDITIONAL IMPERVIOUS COVER."

1AY NOT OPERATE UNDER RESOURCE AGENCY ENVIRONMENTAL CLEARANCE OF A PREVIOUS)T PROJECT, BUT WILL BE REQUIRED TO OBTAIN SEPARATE RESOURCE/ENVIRONMENTAL

EAS OR MATERIAL SOURCE AREAS RESULT FROM THIS PROJECT, THE CONTRACTOR IS LOW THE REQUIREMENTS OF THE TEXAS AGGREGATE QUARRY AND PIT SAFETY ACT. IN EQUESTED THAT THESE AREAS NOT BE VISIBLE FROM ANY HIGHWAY ON THE STATE SYSTEM.

ALS REMOVED AND NOT REUSED AND DETERMINED TO BE SALVAGEABLE SHALL BE STORED CT LIMITS AT AN APPROVED LOCATION OR DELIVERED UNDAMAGED TO THE STORAGE YARD OPERLY DISPOSE UNSALVAGEABLE MATERIALS IN ACCORDANCE WITH LOCAL, STATE, AND 10NS. DEFACE TRAFFIC SIGNS SO THAT THEY WILL NOT REAPPEAR IN PUBLIC AS SIGNS.

EXISTING WITHIN STATE RIGHT OF WAY ARE THE NATURAL RESOURCES OF THE STATE AND ED. IN THE EVENT THAT TREES MUST BE REMOVED, TXDOT WRITTEN PERMISSION WILL BE ANCE AND WILL IDENTIFY THE SPECIFIC TREES BY SPECIES, DIAMETER AND LOCATION TO BE EVELOPER WILL BE FINED FOR ANY UNPERMITTED REMOVAL OF TREES.

T THAT THERE ARE AREAS OF PUBLIC ROW DEDICATION RESULTING FROM THE PLATTING EA WITHIN THE PUBLIC ROW DEDICATION DOES NOT PASS INTO TXDOT OWNERSHIP AS A ING. HOWEVER, THE DEVELOPER WILL REMOVE ANY OLD FENCING, GATES AND UNSIGHTLY N THE AREA OF THE ROW DEDICATION, LEAVING IT IN AN AESTHETICALLY PLEASING AREA OF ROW DEDICATION WILL NOT BE MOWED OR OTHERWISE MAINTAINED BY TXDOT. L OF TREES IN THE AREA OF ROW DEDICATION, THE TREES WILL FIRST BE EVALUATED IN I THE REQUIREMENTS OF LOCAL TREE PROTECTION ORDINANCES AND THE WRITTEN THE LOCAL JURISDICTION WILL BE PROVIDED TO TXDOT.

PER WILL MAINTAIN AT THE PROJECT SITE, AND MAKE AVAILABLE UPON REQUEST, COPIES OF IVIRONMENTAL PLANS AND PERMITS RELATING TO WORK IN STATE RIGHT OF WAY.

GINNING GRADING ACTIVITY THE CONTRACTOR WILL SET AND MAINTAIN ROADWAY STATIONING, MARKS, STAKES TO ESTABLISH LINES, SLOPES, GRADES AND CENTERLINES.

IN STATE RIGHT OF WAY WHICH BECOME STEEPER THAN 3:1 AS A RESULT OF THE WORK WITH 4" THICK REINFORCED CONCRETE RIPRAP AND BE TREATED WITH METAL BEAM GUARD 'ENTAIL ADDITIONAL RIP-RAP BEYOND THAT SHOWN IN THE PLANS.

TRWISE SHOWN ON THE PLANS, WHERE EXISTING CONCRETE RIP—RAP IS REMOVED, MODIFIED E PORTION TO BE REMOVED WILL BE NEATLY SAW-CUT PRIOR TO REMOVAL AND THE NEW FORMED TO MATCH THE EXISTING LINES AND GRADES OF THE EXISTING RIP-RAP AND WILL THE EVICTING RIP-RAP WITH #3 RARS ON 12" CENTERS THE DOWEL BARS WILL BE WITH EPOXY MEETING TXDOT REQUIREMENTS. THE MINIMUM EMBEDMENT LENGTH IS 9 PLIES TO ANY TYPE OF CONCRETE RIP-RAP INCLUDING METAL BEAM GUARD FENCE OR

ERICHTER (830) 609-0707 NEW BRAUNFELS, TRAVIS YOUNG (830) 303-0130 SEGUIN, CHAD 430 BOERNE, MARK ANDREWS (830) 393-3144 FLORESVILLE, TXDOT MAINTENANCE OFFICE ED BY THE CONTRACTOR 48 HOURS PRIOR TO WORK OCCURRING IN STATE RIGHT OF WAY.

OF WAY WILL NOT BE USED AS AN AREA FOR CONTRACTOR PARKING OR FOR STAGING THE RIALS OR EQUIPMENT.

TROL AND CONSTRUCTION BARRICADES WILL MEET THE REQUIREMENTS OF THE TEXAS MUTCD.

CTOR WILL PROVIDE ADVANCE NOTIFICATION TO THE ENGINEER OF IMPENDING/UPCOMING LANE L TEMPORARY AND/OR PERMANENT LANE, RAMP, CONNECTOR, FRONTAGE, SHOULDER, IR, ETC. CLOSURES OR DETOURS.

ADJOINING PROPERTY MUST BE MAINTAINED AT ALL TIMES.

ERWISE NOTED IN THE PLANS AND/OR AS DIRECTED BY THE AREA ENGINEER OR 'ERVISOR, DAILY LANE CLOSURES SHALL BE LIMITED ACCORDING TO THE FOLLOWING

ENANCE SUPERVISOR AND/OR AREA ENGINEER APPROVAL REQUIRED. (WITH UNIFORMED OFF

CEMENT OFFICERS).

ES: MAINTENANCE SUPERVISOR AND OR AREA ENGINEER APPROVAL REQUIRED.)SURES OR ROADWAY CLOSURES WILL BE PERMITTED FOR THE FOLLOWING KEY DATES

EVENTS: EMBER 15 AND JANUARY 1 EFORE THANKSGIVING THRU THE SUNDAY AFTER THANKSGIVING.

SUNDAY WHEN JULY 4 FALLS ON A FRIDAY OR MONDAY. WILL THE ROADWAY TRAVEL WAY BE BLOCKED

D SUNDAY BEFORE MEMORIAL DAY AND LABOR DAY.

RES WILL ONLY BE PERMITTED WITH 48 HOUR PRIOR APPROVAL OF THE TXDOT MAINTENANCE JE CLOSURES WILL BE PERMITTED ONLY BETWEEN 9:00 A.M. AND 4:00 P.M. MONDAY

:1 (H:V) TEMPORARY SAFETY SLOPE OF STABLE COMPACTED MATERIAL WILL BE REQUIRED

STATE HIGHWAY EDGE OF PAVEMENT AT ALL TIMES DURING NON WORKING HOURS.

DE OF THE ROADWAY WILL BE OPEN TO CONSTRUCTION AT A TIME. WORK WILL BE PAVEMENT EDGES BACKFILLED ON ONE SIDE OF THE ROAD BEFORE WORK WILL BEGIN ON THE THE ROADWAY.

PAVING AND SEAL COAT OPERATIONS SHALL PROCEED IN THE DIRECTION OF TRAFFIC.

NT EDGE DROP-OFFS BETWEEN 1 AND 2 INCHES IN HEIGHT WILL HAVE CW 8-11 WARNING EMENT EDGE DROP-OFF 2 INCHES OR GREATER WILL HAVE A 3:1 COMPACTED SAFETY SLOPE CW 8-11 SIGNS PLUS CHANNELIZING DEVICES. PAVEMENT EDGES WILL BE SHOULDERED UP EMBANKMENT MATERIAL AND 4 INCHES OF TOPSOIL AS SOON AS POSSIBLE AFTER PAVING IS HE SIDE OF THE ROAD BEING WIDENED.

NG OF SUBGRADE IS REQUIRED AND SHALL BE WITNESSED BY TXDOT PRIOR TO PLACEMENT RUCTURE UNLESS OTHERWISE APPROVED BY THE TXDOT MAINTENANCE SUPERVISOR. THE PROOF-ROLLING OF SUBGRADE IS NOT SUPERSEDED BY ANY OTHER REQUIREMENTS OF ANY GEOTECHNICAL REPORT.

LE BASE WILL HAVE A MINIMUM PLASTICITY INDEX OF 4.

23. ALL COURSES OF ASPHALTIC CONCRETE PAVEMENT (REGARDLESS OF TYPE) WILL BE PLACED WITH A ASPHALT PAVING EQUIPMENT MEETING THE REQUIREMENTS OF TXDOT ITEM 320, "EQUIPMENT FOR ASPHALT CONCRETE PAVEMENT", UNLESS OTHERWISE APPROVED BY THE MAINTENANCE SUPERVISOR.

24. ALL SURFACE AGGREGATES WILL MEET THE REQUIREMENTS OF TXDOT FRICTION CLASSIFICATION "B" WILL MEET PG BINDER GRADE 70-22.

25. ALL SURFACE ASPHALT CONCRETE PAVEMENT WILL BE UNDER-SEALED WITH A ONE COURSE SURFACE

26. ALL ASPHALTIC CONCRETE PAVEMENT USED IN BASE COURSES WILL BE TYPE "A" OR "B" AND WILL MEET PG BINDER GRADE 64-22.

27. ALL PAVEMENT WIDENING INCLUDING SHOULDERS WILL MATCH THE EXISTING PAVEMENT CROSS SLOPE.

28. ALL PAVEMENT MARKINGS WILL BE TYPE I THERMOPLASTIC (100 MIL) WITH UNDER-SEAL MEETING THE REQUIREMENTS OF TXDOT ITEM 666, REFLECTORIZED PAVEMENT MARKINGS. THE CONTRACTOR WILL PLACE GUIDE MARKS IN ACCORDANCE WITH ITEM 666 AND WILL MAKE ARRANGEMENTS FOR TXDOT INSPECTION OF THE PAVEMENT MARKING LAYOUT PRIOR TO PLACEMENT OF STRIPING. EQUIPMENT USED FOR THE PLACEMENT OF STRIPING WILL MEET THE PRODUCTION REQUIREMENTS OF ITEM 666 UNLESS OTHERWISE APPROVED IN ADVANCE BY THE TXDOT MAINTENANCE SUPERVISOR.

29. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS WILL BE LIGHTLY GROUND IN A MANNER THAT DOES NOT DAMAGE THE PAVEMENT SURFACE, TO REMOVE ANY PAVEMENT MARKING ACCUMULATION, AND WILL BE COVERED WITH A STRIP SEAL OF 18" MINIMUM WIDTH, CONSISTING OF PRECOATED GRADE 5, FRICTION CLASS B AGGREGATE.

30. ALL MATERIALS AND CONSTRUCTION METHODS USED IN STATE RIGHT OF WAY WILL MEET TXDOT SPECIFICATIONS. THIS SUPERSEDES ALL OTHER SPECIFICATIONS IN THE PLANS.

31. ALL TURN LANE CONCRETE PAVEMENT IN STATE ROW WILL MEET THE REQUIREMENTS OF TXDOT ITEM 360 CLASS P CONCRETE AND WILL BE BATCHED AT CONCRETE PLANTS HAVING A CURRENT APPROVED MIX DESIGN. CLASS P CONCRETE SHALL HAVE 7 AND 28 DAY COMPRESSIVE STRENGTH OF 3200 PSI AND 4400 PSI RESPECTIVELY.

32. WHEN WIDENING EXISTING CONCRETE PAVEMENTS, JOINTS IN THE NEW PAVEMENT WILL MATCH JOINTS IN EXISTING PAVEMENT AND CURB.

33. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT TXDOT APPROVED MATERIALS, MIX DESIGNS, APPROVED SOURCES AND PRODUCTS ARE USED FOR ALL WORK IN STATE ROW. THE CONTRACTOR WILL ARRANGE FOR THE SERVICES OF A QUALIFIED TESTING LABORATORY FOR ALL ITEMS REQUIRING TESTING AND WILL NOTIFY TXDOT OF ANY DISCREPANCIES BETWEEN TEST RESULTS AND TXDOT SPECS IN A TIMELY MANNER. THE CONTRACTOR WILL PROVIDE TO TXDOT INVOICES AND TESTING RESULTS AS SOON THEY ARE AVAILABLE. FAILURE TO DO THIS WILL RESULT IN REJECTION OF THE WORK.

34. SAWING OF CONTRACTION/CONSTRUCTION JOINTS IN CONCRETE PAVEMENT WILL BE ACCOMPLISHED AS SOON AS PERSONNEL CAN WALK ON THE CONCRETE WITHOUT DAMAGING THE SURFACE REGARDLESS OF TIME OF DAY OR WEATHER CONDITIONS. STAND-BY POWER DRIVEN CONCRETE SAWS WILL BE PROVIDED DURING THE SAWING OPERATION. CURING COMPOUND WILL BE RE-APPLIED TO THE SAWED JOINT IMMEDIATELY UPON SAWING THE JOINT.

35. GUARDRAIL SGT'S WILL BE TYPE 3 UNLESS OTHERWISE APPROVED BY THE TXDOT MAINTENANCE SUPERVISOR. GUARDRAIL MOW STRIP PLACED ADJACENT TO OTHER CONCRETE RIP-RAP WILL BE SEPARATED BY A FORMED CONSTRUCTION JOINT.

36. ANY CONCRETE CURB TO BE REMOVED WILL BE SAW-CUT AT THE LIMITS OF REMOVAL AND BE REMOVED ENTIRELY. SLICING THE TOP PORTION OF THE CURB OFF AND LEAVING REMAINING PORTION OF CURB IN PLACE IS UNACCEPTABLE.

37. ANY DAMAGE TO TXDOT FACILITIES WILL BE REPAIRED AT NO EXPENSE TO THE STATE, TO TXDOT'S SATISFACTION.

38. SIDEWALKS PLACED IN THE HIGHWAY RIGHT-OF-WAY WILL BE A MINIMUM WIDTH OF FIVE FEET OR COMPLY WITH THE MORE STRINGENT WIDTH AS REQUIRED BY CITY ORDINANCE AND WILL MEET ALL OTHER REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT. PEDESTRIAN RAMPS WILL BE PROVIDED AT STREET AND DRIVEWAY INTERSECTIONS AS SHOWN ON THE CURRENT STATE STANDARD FOR PEDESTRIAN FACILITIES. COLOR CONTRAST AND TEXTURING OF PEDESTRIAN RAMPS WILL BE PLACE AT STREET INTERSECTION RAMPS ONLY AS SHOWN ON THE CURRENT STATE STANDARD FOR PEDESTRIAN FACILITIES. PEDESTRIAN RAMPS AT DRIVEWAY INTERSECTIONS WILL NOT RECEIVE ANY COLOR CONTRAST OR TEXTURING. METAL PLATING FOR SIDEWALK BRIDGES WILL MATCH THE TYPICAL WIDTH OF THE APPROACH SIDEWALK. HIS MAY RESULT IN A WIDTH THAT IS GREATER THAN SHOWN IN THE STANDARD DETAILS INCLUDED IN THE PLANS.

39. THE CONTRACTOR WILL USE BEST MANAGEMENT PRACTICES (BMP'S) TO MINIMIZE EROSION AND SEDIMENTATION IN THE STATE RIGHT OF WAY RESULTING FROM THE PROPOSED CONSTRUCTION. RE-VEGETATION OF DISTURBED AREAS WILL BE COMPLETED IN ACCORDANCE WITH TXDOT STANDARD SPECIFICATIONS. PERMANENT VEGETATIVE COVER MUST ACHIEVE 70% COVERAGE PRIOR TO PROJECT ACCEPTANCE. SOIL RETENTION BLANKETS MAY BE REQUIRED TO PREVENT EROSION OF TOPSOIL PRIOR TO VEGETATION RE-ESTABLISHMENT

40. PRIOR TO SEEDING OR RE-VEGETATION THE FRONT SLOPES WILL BE SHOULDERED UP WITH TOPSOIL TO ELIMINATE ANY PAVEMENT EDGE DROP-OFF.

41. MUD TRACKED ONTO THE ROADWAY FROM THE SITE WILL BE IMMEDIATELY REMOVED TO THE SATISFACTION OF TXDOT.

42. IT WILL BE THE DEVELOPER/OWNER'S RESPONSIBILITY TO CLEAN OUT, TO THE STATE'S SATISFACTION, ANY DRAINAGE STRUCTURE OR STORM SEWER SYSTEM THAT BECOMES SILTED AS A RESULT OF THEIR OPERATIONS.

43. THE ADJUSTMENT OF ANY UTILITIES IN STATE RIGHT OF WAY OR ADJACENT PRIVATE EASEMENT WILL BE THE RESPONSIBILITY OF THE DEVELOPER/OWNER'S.

44. THE CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING EXISTING SIGNS ON TXDOT APPROVED TEMPORARY MOUNTS UNTIL PERMANENT SIGNS ARE PLACED.

45. THE FINAL PLACEMENT OF PERMANENT SIGNS WILL BE COORDINATED PRIOR TO PLACEMENT WITH THE LOCAL TXDOT MAINTENANCE SUPERVISOR.

46 FOR WORK WITHIN THE STATE RIGHT OF WAY WHERE REMOVAL OF MATERIALS OR DEBRIS WITHIN THE CONSTRUCTION LIMITS AND NOT INCORPORATED IN THE FINISHED ROADWAY SECTION OF RIGHT OF WAY, WILL BE DISPOSED OF IN A MANNER ACCEPTABLE TO THE MAINTENANCE SUPERVISOR AT NO EXPENSE TO THE STATE. MATERIALS THAT ARE NOT DETERMINED TO BE SALVAGEABLE BY THE MAINTENANCE SUPERVISOR BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL AT THEIR EXPENSE. MATERIALS DETERMINED TO BE SALVAGEABLE WILL BE RETURNED TO THE STATE AND DELIVERED TO THE LOCATION AS DETERMINED BY THE MAINTENANCE SUPERVISOR.

47. REGARDLESS OF ERRORS AND OMISSIONS IN INFORMATION PROVIDED IN THE PLANS OR CROSS-SECTIONS THE PERMITEE IS RESPONSIBLE FOR PROVIDING FOR POSITIVE DRAINAGE OUTFALLS WITHIN AND OFF THE LIMITS OF THE PROJECT.

48. (FOR WORK IN CITY OF NEW BRAUNFELS) ALL TRAFFIC SIGNALS ON THE STATE HIGHWAY SYSTEM WITHIN THE NEW BRAUNFELS CITY LIMITS, WITH THE EXCEPTION OF SIGNALS ON IH 35, ARE THE RESPONSIBILITY OF THE CITY OF NEW BRAUNFELS AND THE CITY OF NEW BRAUNFELS WILL PERFORM CONSTRUCTION INSPECTION. CONTACT GARRY FORD, P.E. AT (830) 221-4645, 48 HOURS PRIOR TO THE NEED FOR ANY INSPECTIONS. ALSO WHEN NON-TRAFFIC SIGNAL WORK IS BEING PERFORMED WITHIN 400 FEET OF AN EXISTING SIGNALIZED INTERSECTION, FLASHING BEACON OR SCHOOL ZONE FLASHER OR OTHER TYPE OF SIGNAL; IF WITHIN THE CITY OF NEW BRAUNFELS AREA OF RESPONSIBILITY CONTACT GARRY FORD, P.E. TO DETERMINE/VERIFY THE LOCATION OF LOOP DETECTORS, CONDUIT, GROUND-BOXES, ETC. FOR ALL OTHER LOCATIONS, CONTACT TXDOT REPRESENTATIVE, MIKE GARZA, AT (210) 615-6028, E-MAIL IS MIKE.GARZA@TXDOT.GOV. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SIGNAL EQUIPMENT DAMAGED BY CONSTRUCTION OPERATIONS. THE METHOD OF REPAIR OR REPLACEMENT SHALL BE PRE-APPROVED AND INSPECTED. DEPENDING ON THE TYPE AND EXTENT OF THE DAMAGE, THE ENGINEER RESERVES THE RIGHT TO PERFORM THE REPAIR OR REPLACEMENT WORK AND THE CONTRACTOR WILL BE BILLED FOR THIS WORK. WHEN WORKING NEAR AERIAL ELECTRICAL LINES OR UTILITY POLES, COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS.

49. (FOR AREAS OTHER THAN CITY OF NEW BRAUNFELS) WHEN NON-TRAFFIC SIGNAL WORK IS BEING PERFORMED WITHIN 400 FEET OF AN EXISTING SIGNALIZED INTERSECTION, FLASHING BEACON OR SCHOOL ZONE FLASHER OR OTHER TYPE OF SIGNAL, CONTACT TXDOT REPRESENTATIVE, MIKE GARZA, AT (210) 615-6028, E-MAIL IS MIKE.GARZA@TXDOT.GOV. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SIGNAL EQUIPMENT DAMAGED BY CONSTRUCTION OPERATIONS. THE METHOD OF REPAIR OR REPLACEMENT SHALL BE PRE-APPROVED AND INSPECTED. DEPENDING ON THE TYPE AND EXTENT OF THE DAMAGE, TXDOT RESERVES THE RIGHT TO PERFORM THE REPAIR OR REPLACEMENT WORK AND THE CONTRACTOR WILL BE BILLED FOR THIS WORK. WHEN WORKING NEAR AERIAL ELECTRICAL LINES OR UTILITY POLES, COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS.

TRAFFIC CONTROL GENERAL NOTES

1.ALL BARRICADES, SIGNS, AND TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL CONFORM WITH THE LATEST REVISION OF THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CTMUTCDI", AND MUST

2.INSTALL ALL BARRICADES, SIGNS, AND TRAFFIC CONTROL DEVICES AS SHOWN AND IN ACCORDANCE WITH THE TXDOT STANDARD TCP, BC AND WZ SHEETS, OR AS DIRECTED. ALL SIGNS, BARRICADES, AND SUPPORTS

3.REFER TO "BC," "TCP," AND "WZ" STANDARD SHEETS FOR PLACEMENT AND SPACING OF TRAFFIC CONTROL DEVICES. LOCATION OF DEVICES MAY BE SHIFTED AS NEEDED TO FIT EXISTING FIELD CONDITIONS, AS APPROVED.

4.THE REQUIRED SIGNAGE SHOWN AT EACH INTERSECTION MUST BE PROPERLY INSTALLED AND APPROVED PRIOR TO BEGINNING WORK AT SUCH INTERSECTION.

5.ADDITIONAL BARRICADES, SIGNS, AND TRAFFIC CONTROL DEVICES OTHER THAN THOSE SHOWN OR SPECIFIED MAY BE REQUIRED FOR THE SAFE MOVEMENT OF TRAFFIC THROUGH THE PROJECT. PAYMENT FOR ALL SUCH ADDITIONAL SIGNS BARRICADES, OR TRAFFIC CONTROL DEVICES WILL BE CONSIDERED SUBSIDIARY TO THE BID ITEM "BARRICADES, SIGNS AND TRAFFIC HANDLING.

6.TRAFFIC MUST PASS THROUGH THE PROJECT IN COMFORT AND SAFETY DURING NON—WORK HOURS, AND NO EQUIPMENT OR MATERIAL WILL BE LEFT IN A POSITION THAT, IN THE OPINION OF THE ENGINEER, WILL CONSTITUTE A HAZARD OR ENDANGER TRAFFIC.

7. COVER EXISTING TRAFFIC SIGNS THAT PROVIDE CONFLICTING INFORMATION TO THE DRIVER DURING CONSTRUCTION AS DIRECTED UNTIL SUCH TIME THAT A CONFLICT NO LONGER EXISTS. THIS SHALL BE CONSIDERED SUBSIDIARY TO THE BID ITEM ITEM "BARRICADES, SIGNS AND TRAFFIC HANDLING.'

8. THE WORK SITE SHALL BE CONTINUALLY MONITORED TO ENSURE THAT ALL TRAFFIC CONTROL MEASURES ARE OPERATING EFFECTIVELY AND THAT ALL DEVICES USED ARE VISIBLE, IN GOOD CONDITION, AND KEPT CLEAN.

9.THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO AND FROM ALL DRIVEWAYS AT ALL TIMES AND IN ALL WEATHER CONDITIONS DURING THE CONSTRUCTION OF THIS PROJECT.

10.ANY REQUEST TO ALTER THE SEQUENCE OF WORK OR TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION OR WRITTEN APPROVAL PRIOR TO IMPLEMENTATION. ANY MAJOR MODIFICATIONS TO THE SEQUENCE OF WORK RECOMMENDED BY THE CONTRACTOR MUST INCLUDE ANY CHANGES TO AFFECTED BID ITEMS, IMPACTS TO TRAFFIC, AND EFFECT ON OVERALL PROJECT COST, SCHEDULE, ETC. IF THIS APPROVAL IS IMPLEMENTED, THE CONTRACTOR WILL BE RESPONSIBLE FOR DEVELOPING DETAILED PLAN SHEETS TO BE SEALED BY A TEXAS LICENSED PROFESSIONAL ENGINEER FOR INCLUSION WITH THE CHANGE ORDER. ANY ADDITIONAL COSTS RELATED TO THE CHANGES IN THE SEQUENCE OF WORK WILL BE BORNE RELATED TO THE CHANGES IN THE SEQUENCE OF WORK WILL BE BORNE ENTIRELY BY THE CONTRACTOR. THE CONTRACTOR CANNOT PROCEED WITH ANY CONSTRUCTION OPERATIONS BASED ON A REVISED STEP/ SEQUENCE UNTIL WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. IF AT ANY DURING CONSTRUCTION THE CONTRACTOR'S PROPOSED PLAN OF OPERATION FOR HANDLING TRAFFIC DOES NOT PROVIDE FOR SAFE AND COMFORTABLE MOVEMENT OF TRAFFIC, THE CONTRACTOR WILL IMMEDIATELY CHANGE THEIR OPERATION TO CORRECT THE UNSATISFACTORY CONDIT ION.

11. ANY TEMPORARY LANE CLOSURES NEEDED WILL BE IN ACCORDANCE WITH THE APPROPRIATE TCP STANDARD SHEETS.

12. INSTALLATION OF THE TRAFFIC SIGNAL UPGRADE SYSTEM SHALL INTERFERE AS LITTLE AS POSSIBLE WITH TRAFFIC. NO TRAFFIC—CARRYING LANES MAY BE CLOSED AFTER THE HOURS OF 7 AM OR BEFORE 6 PM UNLESS OTHERWISE APPROVED. FLAGGERS AND/OR WARNING DEVICES, AS APPROVED, SHALL BE USED FOR BLOCKING TRAFFIC—CARRYING LANES. PEDESTRIAN TRAFFIC MUST BE SAFELY ROUTED AROUND AND THROUGH THE WORK AREA, IN ACCORDANCE WITH THE TMUTCD.

13. PORTABLE ELECTRONIC CHANGEABLE MESSAGE BOARDS SHALL BE
PLACED AS DIRECTED PRIOR TO IMPLEMENTING LANE CLOSURES OR
CHANGES IN TRAFFIC PATTERNS. NOTIFY THE ENGINEER OF UPCOMING
MAJOR TRAFFIC CHANGES AT LEAST 7 DAYS IN ADVANCE OF THE WORK
BEING DONE IN ORDER TO PROVIDE ADEQUATE TIME TO NOTIFY THE MEDIA.

14. THE CONTRACTOR MAY BE REQUIRED TO HIRE OFF-DUTY POLICE OFFICERS AND/OR POLICE CRUISERS TO ASSIST IN TRAFFIC CONTROL DURING CONSTRUCTION OPERATIONS THROUGHOUT THE COURSE OF THIS WORK PAYMENT FOR THE OFF-DUTY POLICE OFFICERS AND/ OR POLICE CRUISERS SHALL BE IN ACCORDANCE WITH ITEM 9.

15.THE CONTRACTOR SHALL MAINTAIN ADEQUATE OPERATIONS DURING NIGHT TIME HOURS. A BY THE ENGINEER PRIOR TO CONSTRUCTION. WILL NOT BE PAID FOR DIRECTLY BUT WILL ITEMS.

16.THE CONTRACTOR IS REQUIRED TO NOTIFY THE TEXAS 811 CALL CENTER PRIOR TO PERFORMING ANY OPERATIONS INVOLVING DIGGING, BORING, EXCAVATION. OR DRILLING.

SUGGESTED SEQENCE OF CONSTRUCTION:

TRAFFIC SIGNAL INSTALLATION

1. INSTALL ADVANCE WARNING SIGNS AND PROJECT PERIMETER BARRICADING IN ACCORDANCE WITH THESE PLANS, BC SHEETS, AND TMUTCD.

2. INSTALL SIGNS, BARRICADES AND TRAFFIC CONTROL DEVICES PER STANDARDS.

3. CONSTRUCT SIGNAL INSTALLATION. 4. THE CONTRACTOR SHALL NOTIFY THE TXDOT TRAFFIC SIGNAL SHOP PRIOR TO BEGINNING CONSTRUCTION AT ANY INTERSECTION OR MAKING ANY TYPE OF ADJUSTMENT TO ANY TRAFFIC SIGNAL INTERSECTION OR SYSTEM. THE TXDOT TRAFFIC SIGNAL SECTION IS RESPONSIBLE FOR TRAFFIC SIGNAL OPERATIONS AT ALL DIAMOND INTERSECTIONS AND IS THUS RESPONSIBLE FOR PROGRAMMING OF TRAFFIC SIGNALS AT THESE INTERSECTIONS. THE TXDOT AUSTIN DISTRICT TRAFFIC SIGNAL DEPARTMENT IS RESPONSIBLE FOR THE PROGRAMMING, TIMING, AND COORDINATION

FOR TRAFFIC FLOW FOR THE TRAFFIC SIGNALS AT ALL OTHER INTERSECTIONS.

TRAFFIC CONTROL GENERAL NOTES

1.ALL BARRICADES, SIGNS, AND TRAFFIC CONTROL DEVICES ON THIS PROJECT SHALL CONFORM WITH THE LATEST REVISION OF THE "TEXAS" MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CTMUTCDI", AND MUST BE MAINTAINED AS DIRECTED.

2.INSTALL ALL BARRICADES, SIGNS, AND TRAFFIC CONTROL DEVICES AS SHOWN AND IN ACCORDANCE WITH THE TXDOT STANDARD TCP, BC AND WZ SHEETS, OR AS DIRECTED. ALL SIGNS, BARRICADES, AND SUPPORTS

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7. COVER EXISTING TRAFFIC SIGNS THAT PROVIDE CONFLICTING INFORMATION TO THE DRIVER DURING CONSTRUCTION AS DIRECTED UNTIL SUCH TIME THAT A CONFLICT NO LONGER EXISTS. THIS SHALL BE CONSIDERED SUBSIDIARY TO THE BID ITEM ITEM "BARRICADES, SIGNS AND TRAFFIC

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AVE., S, TX 961

S. CASTELL / BRAUNFEL (EFIRM F-109)

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THEIGHTS
TISIGNALS
INFELS, T A O 2 Щ И G Z

DATE: September 22

ZAH DRAWN BY: DESIGNED BY: JMP REVIEWED BY: JMP HMT PROJECT NO .:

SHEET

032.067

Y OF TRAFFIC SIGNAL ITEMS

	416	41	6	618	618	618	620	620		620	620	62	624	680	682	682	682	682	682
	6004	600	06	6023	6070	6030	6007	6008	6	009	6010	600	5 6002	6002	6001	6002	6003	6004	6005
N.I.	DRILL SHAFT	DRILL SHAFT (48	CONDT (PVC)(SCH		CONDT PVC)(SCH	CONDT (PVC)(SCH	ELEC CONDR	ELEC CONDR	ELEC CON (N0.6) BAI			TRAY CABLE (4	GROUND BOX TY A	INSTALL HWY TRF SIG	VEH SIG SEC (12") LED (GRN)	VEH SIG SEC (12") LED (GRN		VEH SIG SEC (12") LED	VEH SIG SEC (12") LED
IN	(36 IN)	IN)	(2")		40) (3")	40) (3") (BORE)	(NO. 8)	(NO. 8) INSULATED	,	`	,	CONDR) (12 AWG)		(ISOLATED)	(-) === (- : : :)	ARW)	(YEL)	(YEL ARW)	(RED)
	LF	LF	LF		LF	LF	LF	LF	LF	LF		EA	EA	EA	EA	EA	EA	EA	EA
√T ₹D	27	22	62		274	1395	1257	888	50	113	3	444	6	1	6	3	6	3	6
	27	22	62		274	1395	1257	888	50	113	3	444	6	1	6	3	6	3	6
	682		682	682)	684	686	68	36	686		690	6001	6025	6027	6292			
	6006		6050	6060		6033	6039	60		6059	(6131	6001	6002	6008	6003			
	VEH SIG		PLATE W/ BA					PL INS TRE		S TRF SIG PL		ALL BBU	PORTABLE	RADAR	GROUND	RVDS			
N	(12") LED (ARW)	•	BRDR (4 RESEC)	SEC)	(c)	TY A) (14 AWG) (7 CONDR)	AM (S)1 AF (36') LUM	` ′		M (S)1 ARM (55') LUM	SY	/STEM (CHANGEABLE MESSAGE SIGN	PRESENCE DETECTOR COMM CABLE	,	(PRESENCE AND ADVANCE DETECTION)			
						3311311)							01011	OOMMI O/ NDEE		DETECTION,			
	EA		EA	EA		LF	EA	E	A	EA		EA	DAY	LF	EA	EA			
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	3		3	6		1813	1		1	1		1	30	1162	6	5			

Y OF PAVEMENT MARKING ITEMS

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																		67
																	6006	6008
	REFL	REFL PAV	REFL PAV MRK	REFL PAV	REFL PAV	REFL PAV	REFL PAV	REFL PAV	REFL PAV	REFL PAV	ELIM EXT	ELIM EXT	REFL PAV	REFL PAV	PAV SURF	PAV SURF	PAV SURF	PAV SURF
NI	PAV MRK	MRK TY II	TY II (Y) 4"	MRK TY II	MRK TY II	MRK TY II	MRK TY II	MRK TY II (W)	MRK TY II (W)	MRK TY II	PAV MRK &	PAV MRK &	MRKR TY	MRKR TY	PREP FOR	PREP	PREP FOR	PREP FOR
IN	TY II (W)	(W) 4" (SLD)	` ,	(W) 8" (SLD)		(W)2 4"	(W) 4"	4" (DBL` ´		(W) (WORD)		MRKS (24")	II-A-A	II-C-R	MRK (4")	FOR MRK	MRK (12")	MRK (24")
	4" (BRK)	, , , ,	,		(SLD)	(SLD)	(ARROW)	ARROW)	ARROW)		,	,			, ,	(8")	,	, ,
	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	LF	EA	LF	LF	LF	LF
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	644	644	644
	6001	6068	6076
N	IN SM RD SN SUP&AM TY10 BWG (1) SA (P)	RELOCATE SM RD SN SUP&AM TY 10BWG	REMOVE SM RD SN SUP&AM
	EA	EA	EA

SUMMARY
SUMMARY
GREENSPOINT HEIGHTS
TXDOT SIGNALS
NEW BRAUNFELS, TE

REVISION DATE							
REVISION DESCRIPTION							
ON							
DA.	TE:	9	Sept	emb	er 2	22	
DR,	AWN	BY:			ZAH		

DESIGNED BY: JMP

REVIEWED BY: JMP

HMT PROJECT NO.:

032.067

SHEET

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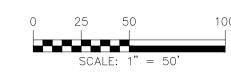
September 22

DESIGNED BY:

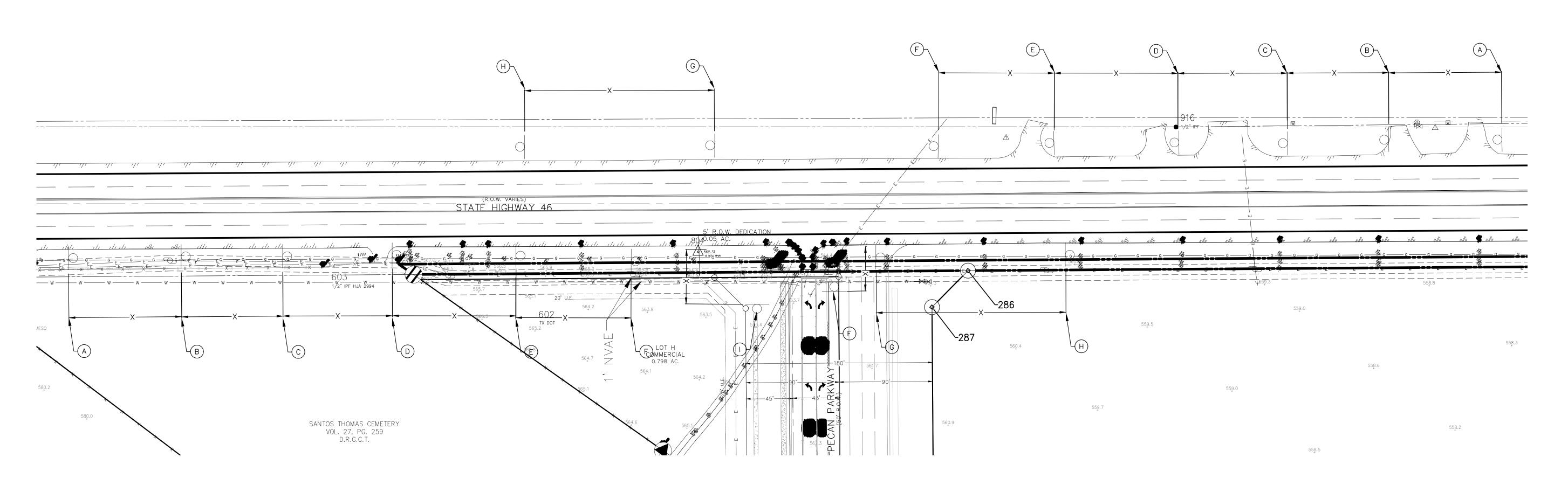
REVIEWED BY: **JMP** HMT PROJECT NO .:

032.067

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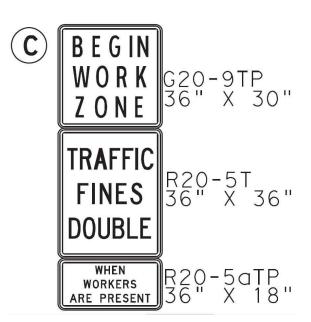


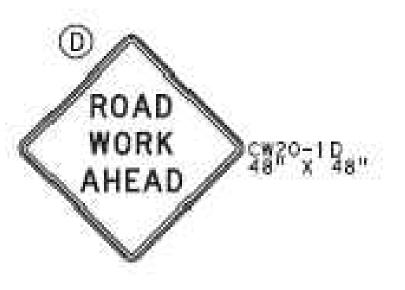
- 1. X-SEE BC SHEETS FOR PROPER SPACING AND MORE INFORMATION ON ADVANCE WARNING SIGNS.
- 2. ADDITIONAL SIGNS MAY BE ADDED BY THE ENGINEER BASED ON EXISTING FIELD CONDITIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR THESE SIGNS AS THEY WILL BE CONSIDERED SUBSIDIARY TO ITEM 502, BARRICADES, SIGN AND TRAFFIC HANDLING.
- 3. TYPICAL ADVANCE SIGNAL PROJECT SIGNING FOR MAJOR STREET APPROACH FOR SIGNAL WORK AT INTERSECTION.

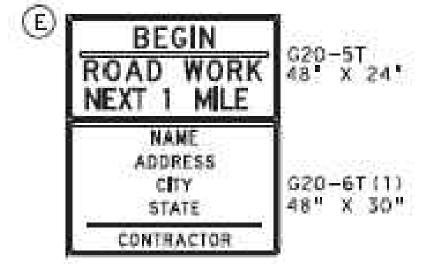


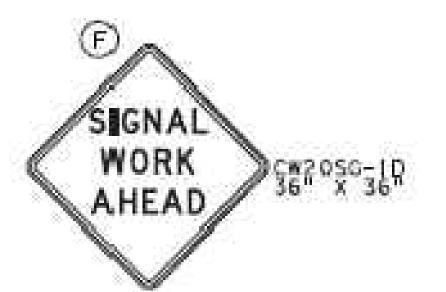
OBEY WARNING SIGNS STATE LAW















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.

PERMANENT TRAFFIC SIGNAL:

- INSTALL SI GNALS HORIZONTALLY ON MAST ARM, 18 FT. -6IN. (MINIMUM)
 ABOVE THE ROADWAY.
- 2. FURNISH BLACK HOUSING FOR VEHICLE SIGNALS. FURNISH SLOTTED BLACK VEHICLE SIGNAL HEAD BACK PLATES.
- 3. FURNISH VEHICLE SIGNALS WITH LIGHT EMITTING DIODE (LEDI) SIGNAL LAMP UNITS.
- 4. USE TYPE C HIGH SPECIFIC INTENSITY GRADE SHEETING FOR SIGNS MOUNTED UNDER OR ADJACENT TO THE SIGNAL HEADS.
- 5. FURNISH SYMBOL TYPE PEDESTRIAN COUNTDOWN SIGNALS. INSTALL USING MOUNTING HEIGHT IN ACCORDANCE WITH THE LATEST TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 6. EQUIP ALL TRAFFIC SIGNAL CONTROLLERS WITH A BATTERY BACKUP UNIT (BBUI).
- 7. THE TXDOT AUSTIN DISTRICT WILL PROGRAM PHASING AND TIMING FOR PERMANENT S I GNAL S. CONTRACTOR TO PROVIDE CONTROLLERS AND CONTACT THE CITY TWO TO THREE WEEKS PRIOR TO INSTALLATION.
- 8. LOCATE CONTROLLER(S), POLES, DETECTION ZONES, ETC., AS APPROVED.
- 9. REPAIR OR REPLACE PAVEMENT AND SIDEWALKS DAMAGED BY THE CONTRACTOR'S FORCES DURING CONSTRUCTION AT NO COST TO THE DEPARTMENT.
- 10. TXDOT WILL DETERMINE WHICH ITEMS WILL BE SALVAGED. ITEMS DEEMED SALVAGEABLE WILL BE DELIVERED TO THE DEPARTMENT 'S SIGNAL SHOP. CAREFULLY REMOVE THE MATERIALS SO THAT THEY WILL NOT BE MARKED OR DAMAGED. REPLACE MATERIALS THAT ARE SCARRED, BATTERED, OR BROKEN BY THE CONTRACTOR AT NO EXPENSE TO THE DEPARTMENT. DISPOSE OF OTHER ITEMS REMOVED BY THE CONTRACTOR AT NO EXPENSE TO THE DEPARTMENT.
- 11. ASSUME OWNERSHIP OF THE REMOVED EQUIPMENT AND POLES.
- 12. FURNISH AND INSTALL URETHANE FOAM TO ENCLOSE THE ENDS OF EACH CONDUIT CONTAINING SIGNAL CABLE AND ELECTRICAL CONDUCTORS.
- 13. CAP SPARE CONDUITS INSTALLED IN POLE FOUNDATIONS AND GROUND BOXES USING APPROVED CAPPING DEVICES.
- 14. DO NOT PLACE SIGNAL HEADS OVER THE ROADWAY UNTIL ALL NECESSARY MATERIALS ARE ON HAND AS APPROVED.
- 15. INSTALL TWO SET SCREWS ON ALL VEHICLE SIGNAL HEAD MOUNTING HARDWARE FITTINGS.
- 16. PROVIDE CONTINUED OPERATION OF THE EXISTING SIGNAL(S) DURING CONSTRUCTION AND UNTIL THE PROPOSED OPERATION IS COMPLETED.
- 17. ONCE THE INTEGRITY AND/OR FUNCTION OF THE EXISTING TRAFFIC SIGNAL(S) IS ALTERED BY THE CONTRACTOR, MAINTAIN AND OPERATE THE EXISTING TRAFFIC SIGNAL(S) UNTIL THE TRAFFIC SIGNAL WORK IS ACCEPTED BY THE DEPARTMENT. DURING THE CONSTRUCTION OF THE PROPOSED TRAFFIC SIGNAL WORK, MAINTAIN THE EXISTING TRAFFIC SIGNAL(S) IN CONFORMANCE WITH THE LATEST TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 18. MAINTAIN THE INTEGRITY AND FUNCTION OF EACH EXISTING SIGNALIZED INTERSECTION. ONCE THE INTEGRITY OR FUNCTION OF THE INTERSECTION HAS BEEN ALTERED, PURSUE THE WORK AT THAT LOCATION WITHOUT DELAY OR INTERRUPTION TO RESTORE OPERATION TO ITS ORIGINAL OR FINAL OPERATIONAL DESIGN.
- 19. INSTALL A 5/8-IN. (MINIMUM) EYE BOLT FOR THE POINT OF ATTACHMENT BELOW THE SERVICE ENTRANCE WEATHERHEAD FOR THE SERVICE DROP TO STEEL POLES.
- 20. WRAP SIGNAL HEADS WITH DARK PLASTIC OR SUITABLE MATERIAL TO CONCEAL THE SIGNAL FACES FROM THE TIME OF INSTALLATION UNTIL PLACING INTO OPERATION.
- 21. GROUND STEEL MAST ARM POLE ASSEMBLIES IN ACCORDANCE WITH THE REQUIREMENTS SHOWN ON THE LATEST TRAFFIC SIGNAL POLE FOUNDATION STANDARD. USE THE GROUNDING LUG ON THE POLE TO GROUND THE POLE TO THE GROUND CONDUCTORS FROM THE CONDUITS.
- 22. INSTALL A CLOSE NIPPLE WITH LOCK NUT AND BUSHING (SIZE AS REQUIRED) WHERE THE CABLE ENTERS THE UPPER PORTION OF THE SIGNAL POLE.
- 23. REFER TO TXDOT'S WEBSITE FOR PREQUALIFIED PRODUCTS LIST REGARDING VEHICLE LED TRAFFIC SIGNAL LAMP UNIT, CONDUIT, CONDUCTORS, GROUND BOXES, AND ELECTRICAL SERVICE. CHECK WEBSITE PERIODICALLY FOR CURRENT UPDATES.
- 24. THE LOCATION OF THE RADAR DETECTION ZONES ARE APPROXIMATE.

 CONSULT WITH THE RPDD MANUFACTURER AND MAKE ARRANGEMENTS FOR MANUFACTURER—PROVIDED TRAINING BEFORE DETERMINING THE LOCATION OF THE DETECTION ZONES, IN ACCORDANCE WITH ITEM 6025 6292, "RADAR PRESENCE DETECTION DEVICE". THE PROPOSED LOCATIONS OF THE DETECTION ZONES WILL BE SUBMITTED TO THE ENG I NEER AND/OR DEPARTMENT'S TRAFFIC OPERATIONS SECTION FOR REV I EW/ APPROVAL PRIOR TO MOUNTING AND ALIGNING THE RPDDs.

- 25. IF EXISTING GROUND BOXES ARE FOUND TO BE INSUFFICIENT IN SIZE TO ACCOMMODATE THE PROPOSED CONDUITS AND CABLES AS SHOWN ON THE PLANS OR IF THEY HAVE BEEN DAMAGED TO THE EXTENT THEY WILL NOT ACCOMMODATE THE ADDITIONAL CONDUITS AND CABLES, REPLACE THE GROUND BOX WITH A NEW GROUND BOX <SIZE AS REQUIRED) OR INSTALL A NEW GROUND BOX ADJACENT TO THE EXISTING GROUND BOX AS APPROVED BY THE ENGINEER. SUCH REPAIR OR REPLACEMENT IS INCIDENTAL TO ITEM 624, "GROUND BOX".
- 26. IF THE ENGINEER IN THE FIELD FINDS THE EXISTING CONDUITS IN THE SIGNAL POLE FOUNDATION INADEQUATE TO ACCOMMODATE THE PROPOSED CABLES, ATTACH A NEW CONDUIT <SIZE AS REQUIRED> TO THE SIGNAL POLE FOUNDATION. IF ADEQUATE ROOM EXISTING BETWEEN THE SIGNAL POLE AND THE FOUNDATION, INSTALL THE CONDUIT UNDER THE SIGNAL POLE. IF ADEQUATE ROOM DOES NOT EXIST BETWEEN THE SIGNAL POLE AND THE FOUNDATION, ATTACH THE CONDUIT TO THE SIGNAL POLE FOR THE PROPOSED CABLES. SUCH WORK IS CONSIDERED INCIDENTAL TO THE BID ITEM 618, "CONDUIT".
- 27. CONSTRUCT CONCRETE APRONS FOR TYPE 1 GROUND BOXES, IF NECESSARY, IN ACCORDANCE WITH THE GENERAL CONSTRUCTION NOTES SHOWN UNDER ITEM 624.
- 28. CLAMP ALL CONDUITS ATTACHED TO SIGNAL POLE FOUNDATIONS WITH CONDUIT STRAPS AND CLAMP BACKS (MALLEABLE IRON) AT A MAXIMUM SPACING OF 5 FT. CENTER TO CENTER.
- 29. FURNISH AND INSTALL A SEPARATE #14/7C OR #14/5C CABLE FROM THE TERMINAL BLOCKS LOCATED IN THE HAND HOLE OPENING AT THE BASE OF EACH MAST ARM POLE TO EACH SIGNAL HEAD <SEE STANDARD SHEET MA-D-12).
- 30. FURNISH AND INSTALL WIRE NUTS WITH FACTORY APPLIED WATERPROOF SEALANT IN ACCORDANCE WITH TXDOT STANDARD ED<31-14, WHEN SPLICING IN THE ACCESS COMPARTMENT OF THE EXISTING TRAFF I C SIGNAL POLES THAT DO NOT HAVE TERMINAL BLOCKS. VERIFY WHICH OF THE EXISTING TRAFFIC SIGNAL POLES DO NOT HAVE TERMINAL BLOCKS PRIOR TO ORDERING SPLICING MATERIALS.
- 31. PROVIDE 250 WATT LIGHT EMITTING DIODE <LEDI LAMP LUMINAIRES OPERATING AT 120 VOL TS.
- 32. ROUTE CABLE FOR LUMINAIRES TO THE SERVICE ENCLOSURE. SEE CONDUIT & CONDUCTOR LAYOUT SHEETS.
- 33. INSTALL ISOLATED ELECTRICAL GROUNDING CONDUCTOR'S < EGC'SI IN THE CONDUITS AS SHOWN ON THE PLANS. PROVIDE CABLE WITH GREEN COLOR INSULATION.
- 34. LIMITS OF PAY FOR BORED CONDUITS SHALL NOT EXTEND MORE THAN THREE FEET IN FRONT OF AND BEYOND THE ROADWAY OR DRIVEWAY THAT IS BEING BORED UNDER. WHEN MULTIPLE DRIVEWAYS EXIST, THE CONTRACTOR MAY BE ALLOWED TO BORE UNDER THE ENTIRE GROUP OF DRIVEWAYS PROVIDED THE DRIVEWAYS DO NOT EXCEED FORTY FOOT SPACING AS APPROVED BY THE ENGINEER IN THE FIELD. NO INCREASE FOR BORED CONDUITS WILL BE INCURRED FOR THIS WORK. CONDUIT BORED BETWEEN MULTIPLE DRIVEWAYS TO BE PAID FOR AS TRENCHED

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

ENGINEERING & SURVEYIN

REENSPOINT HEIGHTS UNIT 3

ON DATE: September 22

DRAWN BY: ZAH

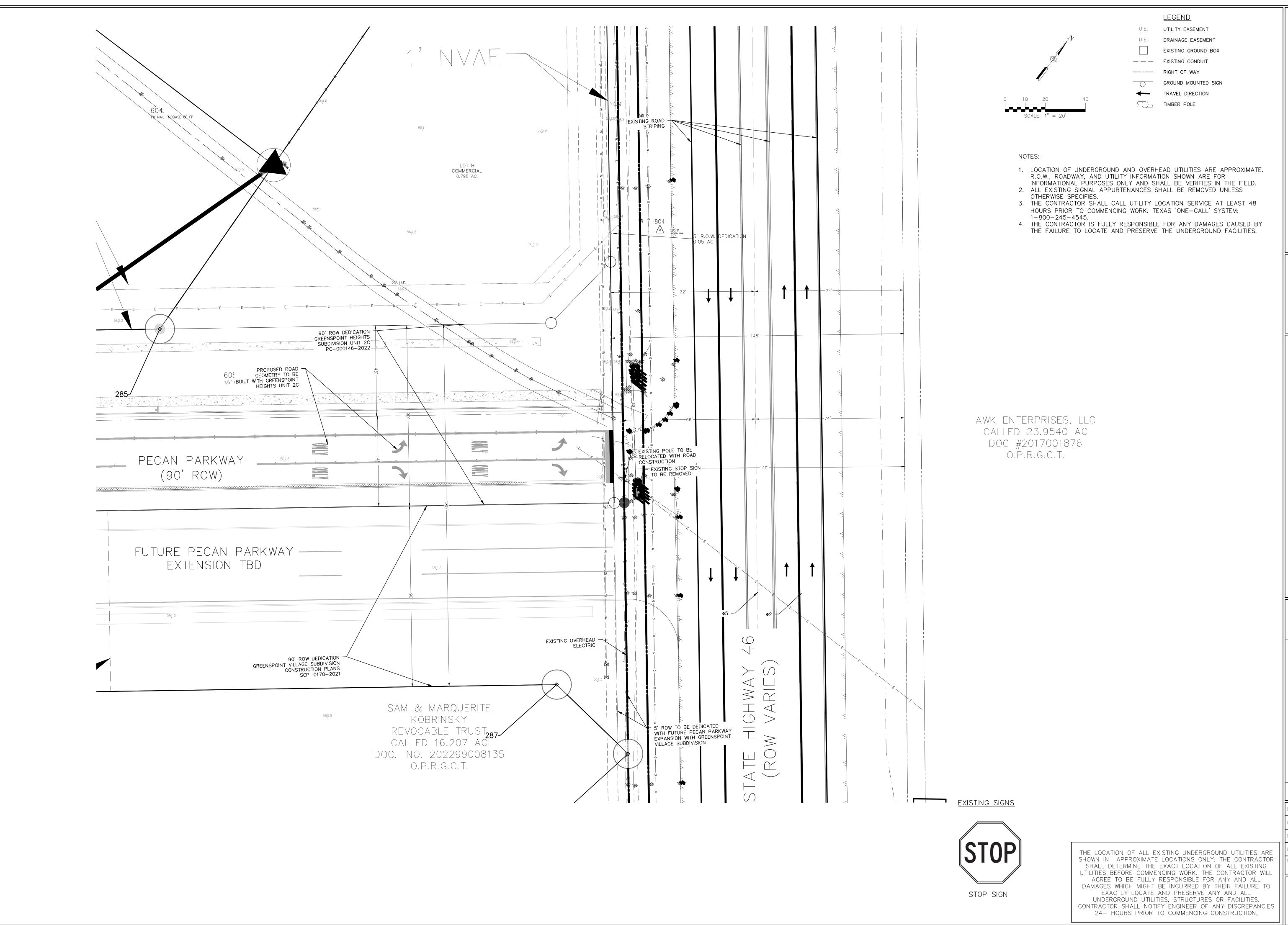
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032.067



CASTELL AVE., STE. 10 RAUNFELS, TX 78130 FIRM F-10961 FIRM 1053600

GINEERING & SURVEYING

EXISTING LAYOUT

GREENSPOINT HEIGHTS L TXDOT SIGNALS NEW BRAUNFELS. TE>

NO. REVISION DESCRIPTION REVISION DATE

DATE: September 22

RAWN BY: **ZAH**

DESIGNED BY: JMP

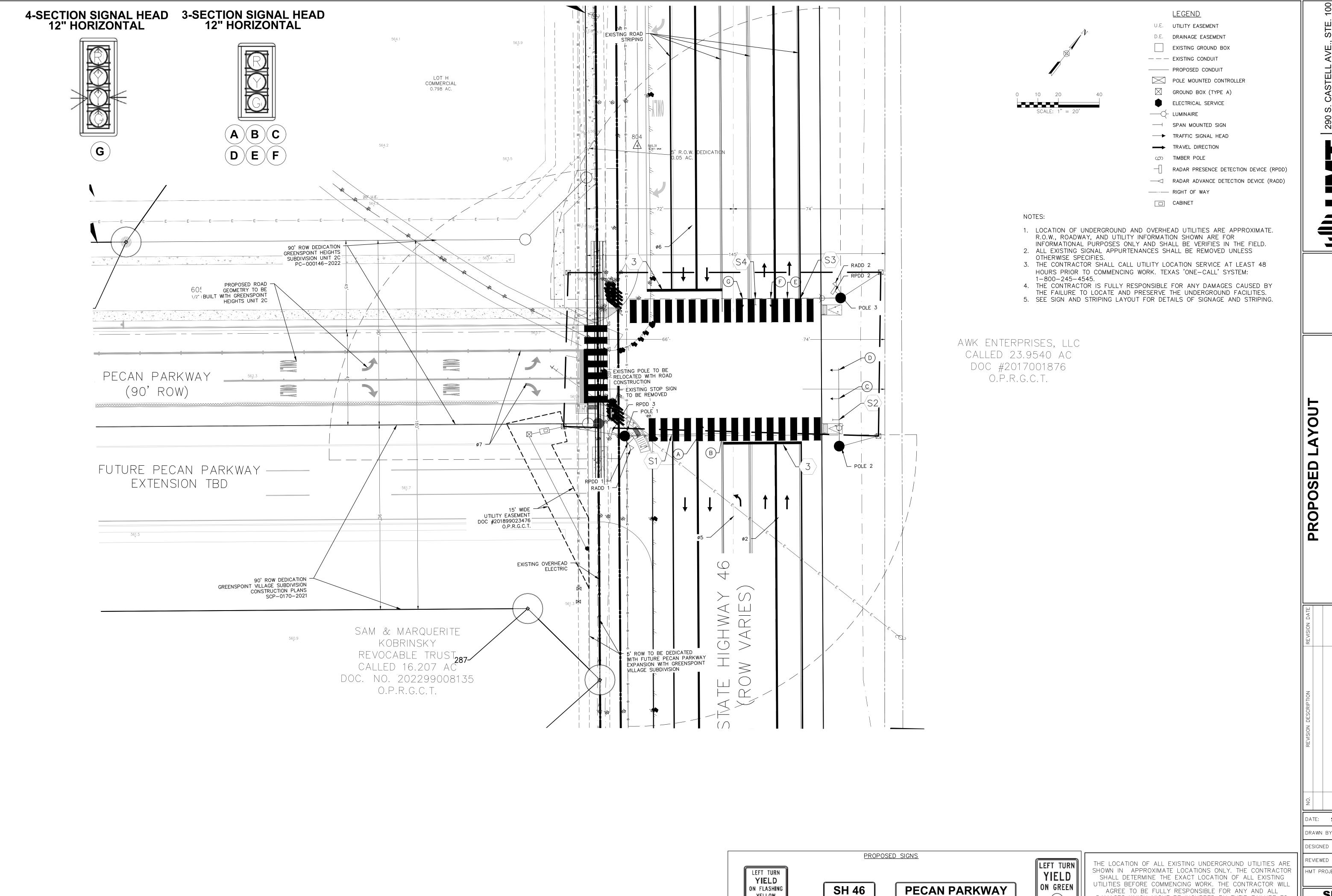
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SHEET

C2.02



YELLOW

ARROW

S4

September 22

DRAWN BY: DESIGNED BY:

EVIEWED BY: JMP

DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO

EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES

24- HOURS PRIOR TO COMMENCING CONSTRUCTION.

HMT PROJECT NO .: 032.067

SHEET

75

SPARE

SPARE

150

OVL D

SPARE

SPARE

790

CABLE TERMINATION CHART									
	CABLE 1	CABLE 2	CABLE 3	CABLE 4					
CNDR. COLOR	POLE 1 TO CNTRL	POLE 2 TO CNTRL	POLE 3 TO CNTRL	POLE 3 TO CNTRL					
	7 CNDR.	7 CNDR.	7 CNDR.	7 CNDR.					
DI ACK	SH A,B - Y	SH C,D - Y	SH E,F - Y	SH G - Y ARR					
BLACK	PHASE φ6	PHASE φ7	PHASE φ2	PHASE φ5					
WHITE	SIGNAL COMMON	SIGNAL COMMON	SIGNAL COMMON	SIGNAL COMMON					
RED	SH A,B - R	SH C,D - R	SH E,F - R	SH G - R ARR					
KED	PHASE φ6	PHASE φ7	PHASE φ2	PHASE φ5					
CDEEN	SH A,B - G	SH C,D - G	SH E,F - G	SH G - G ARR					
GREEN	PHASE φ6	PHASE φ7	PHASE φ2	PHASE φ5					
				SH C - Y FLASH					
ORANGE	SPARE	SPARE	SPARE	ARR					

SPARE

SPARE

610

CABLE INSIDE ARMS					
INSIDE ARMS	14 AWG				
INSIDE ARIVIS	7/C				
POLE 1 (48')					
HEAD A	22				
HEAD B	34				
POLE 2 (36')					
HEAD C	24				
HEAD D	36				
POLE 3 (48')					
HEAD E	26				
HEAD F	34				
HEAD G	48				
TOTAL	224				

695

180

CABLE INSIDE CONDUITS ON POLES									
INSIDE	14 AWG	RADAR	TRAY	#8 AWG					
POLE	7/C	6/C	CABLE 4/C	(INS)					
POLE 1	40	60		60					
POLE 2	40		30	60					
POLE 3	40	40	30	60					
TOTAL	120	100	60	180					

SPARE

SPARE

650

0

TOTAL

BLUE

WHITE/BLACK

HEIGHT

EQUIPEMENT

ATTACHED

RPDD 1

RPDD 3

RADD 1

2 3-SECTION

VEH SIGNAL HEADS LUMINAIRE

<u>CABLE INSIDE CABINET</u>									
INSIDE	7/C	RADAR	#6 AWG	#6 AWG					
CABINET	14 AWG	6/C	INS	BARE					
TOTAL	40	35	10	5					

RPDD 2

RADD 1

| SOUTHBOUND | PRESENCE |

EASTBOUND PRESENCE

NORTHBOUND ADVANCE

| SOUTHBOUND | ADVANCE |

POLE 3

POLE 1

POLE 1

POLE 3

ELECTRICAL SERVICE DETAILS BRANCH CKT. BKR. **ELECTRICAL SERVICE TYPE** SERVICE CONDUCTORS | SAEFTY SWITCH MAIN CKT. BRK. PANELEB./LOADCENTER **SERVICE TWO-POLE BRANCH CIRCUIT ID** POLE/AMPS (REFER TO ED (5)-14) **CONDUIT SIZE** NO./SIZE **AMPS** POLE/AMPS CONTRACTOR AMPS **AMP RATING** TY D 120/240 070 (NS) AL TRAFFIC SIGNAL 1 1/4" 3/#6 2P/60 100 1P/30,2P/20 <7.1 N/A 30 (E) SP (O) LUMINAIRE **RADAR DETECTOR SCHEDULE TRAFFIC POLE SCHEDULE** MOUNTNG POLE 1 POLE 1 (48' ARM) POLE 2 POLE 2 (36' ARM) POLE 3 | POLE 3 (48' ARM) **POLE DETECTOR ID** TYPE PHASE **APPROACH LOCATION** MOUNTING 19' 30' 30' 19' 19' NORTHBOUND PRESENCE | φ2 + φ5 POLE 1

2 3-SECTION;

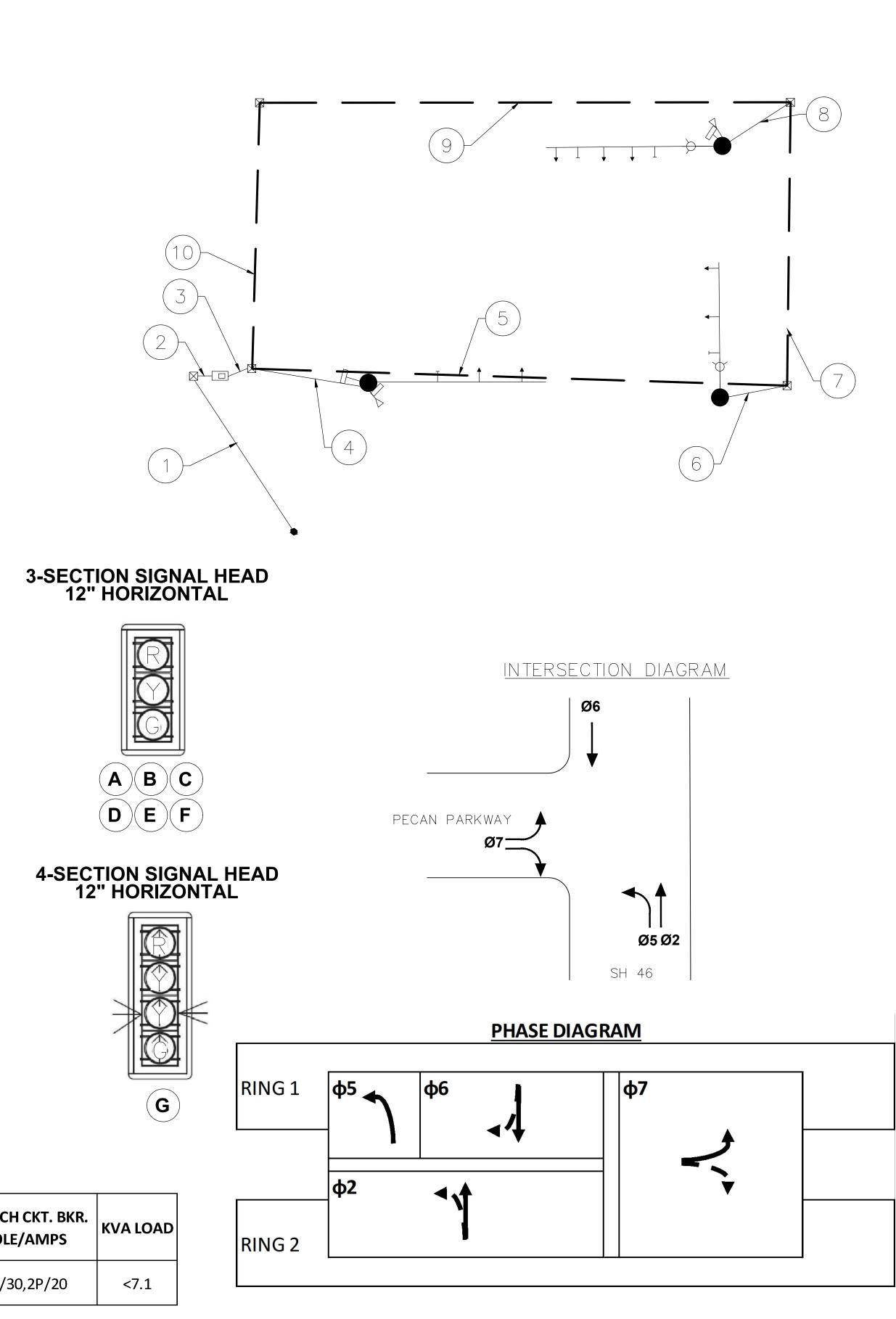
14-SECTION

VEH SIGNAL HEADS

RPDD 2

2 3-SECTION

| VEH SIGNAL HEADS | RADD 2



CONDUIT/SPAN RUN DIAGRAM

September 22 DRAWN BY: DESIGNED BY: REVIEWED BY: JMP HMT PROJECT NO .: 032.067 SHEET

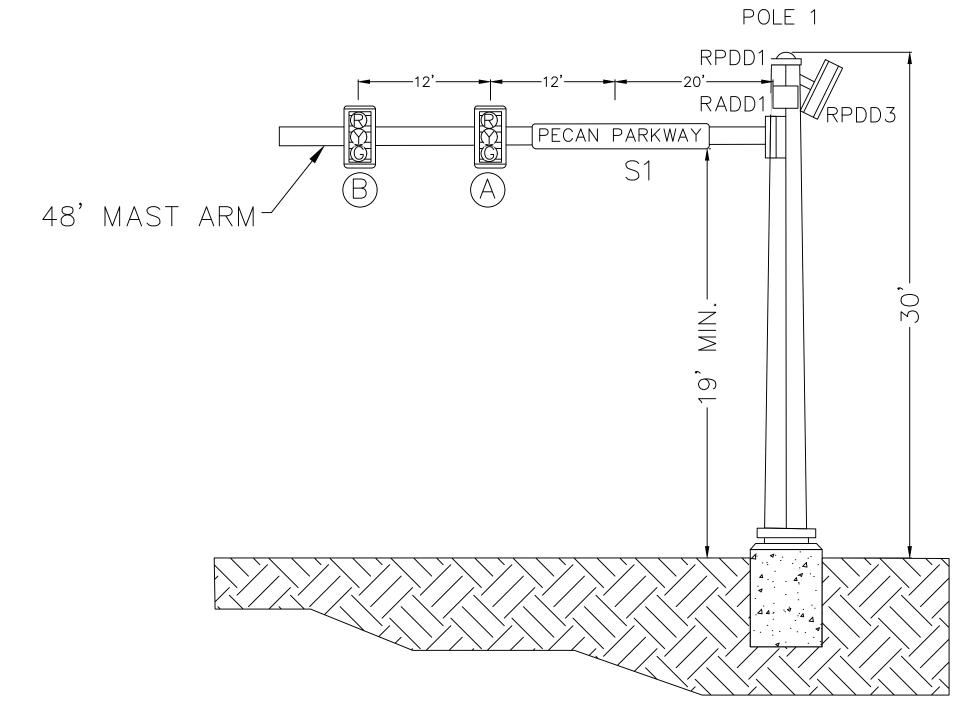
SIGNA

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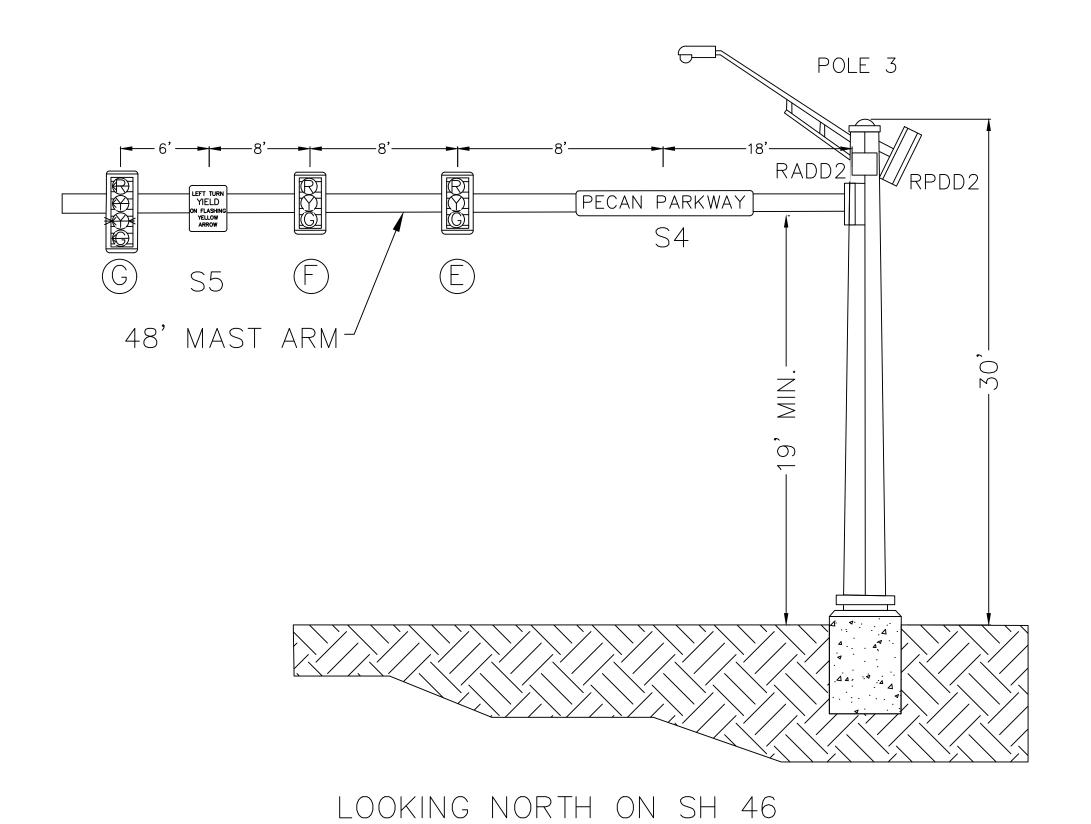
032.067

SHEET

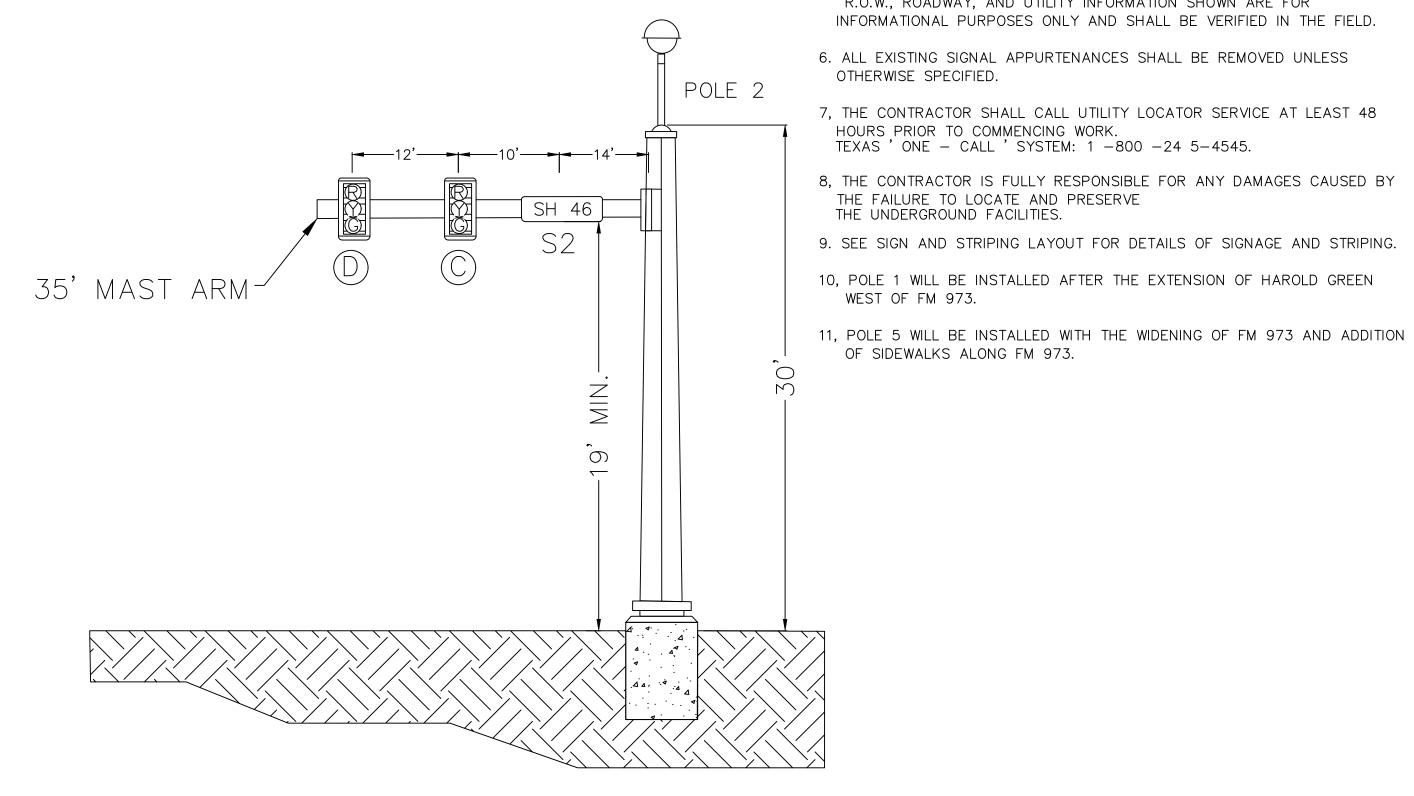
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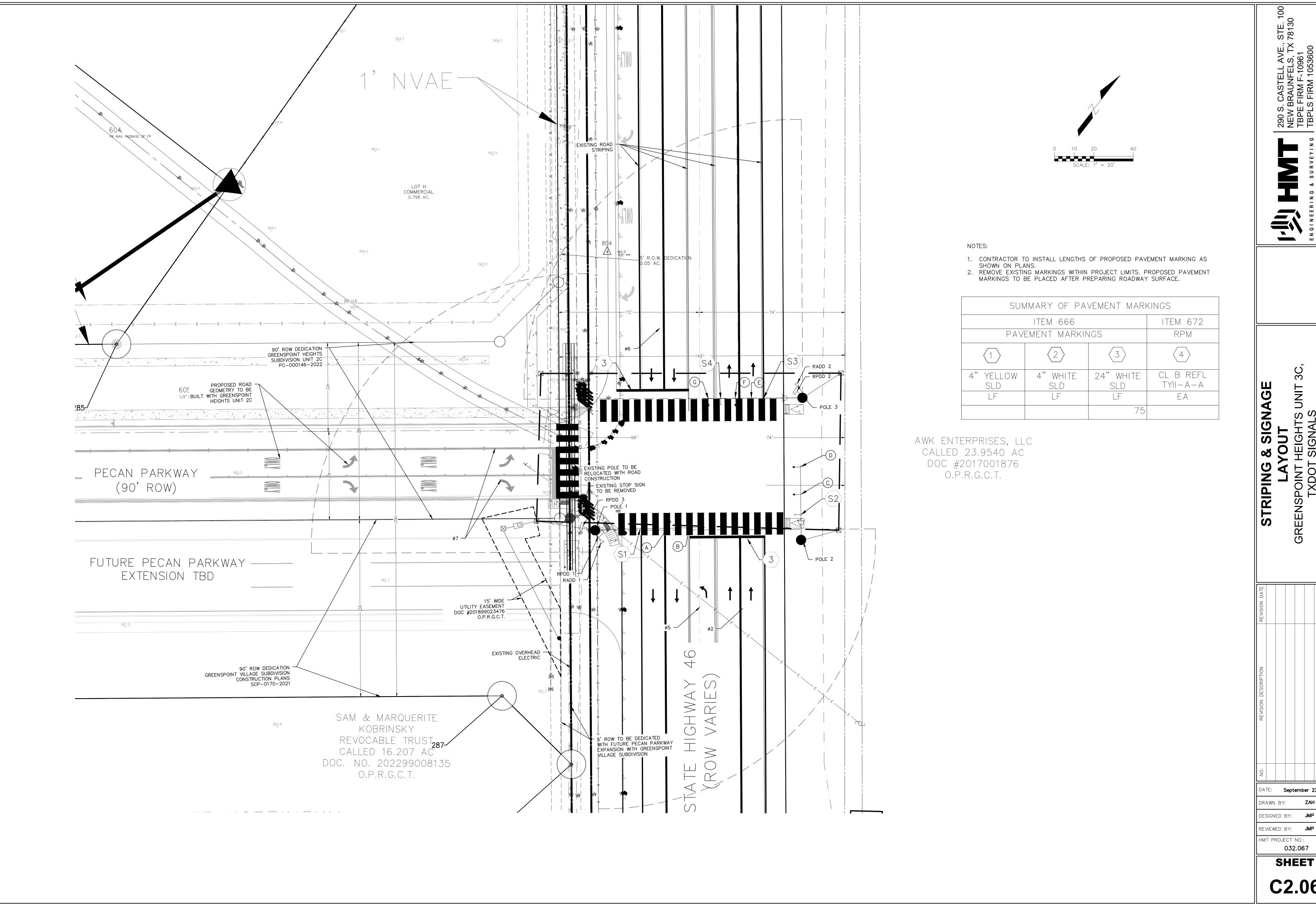
NOT TO SCALE



NOTES:

APPROVED BY THE ENGINEER.

LOOKING EAST ON PECAN PARKWAY NOT TO SCALE



DATE: September 22

DESIGNED BY: JMP REVIEWED BY: JMP

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C2.06