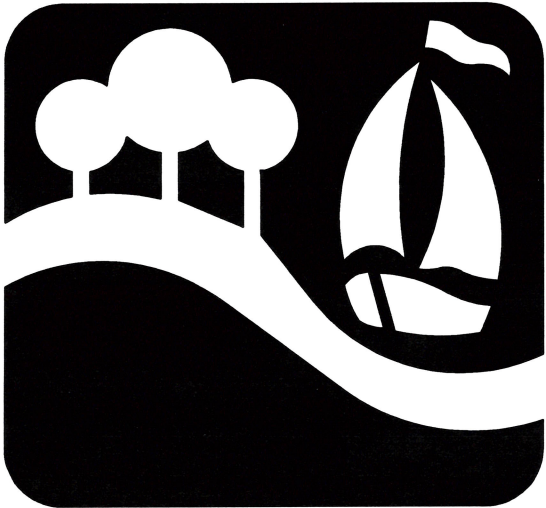


UTILITY PLANS  
FOR  
S&A SYSTEMS, INC.  
POTT SHRIGLEY ADDITION  
LOT 1, BLOCK 1  
992 SIDS ROAD  
  
IN THE  
CITY OF ROCKWALL, TEXAS



"THE NEW HORIZON"

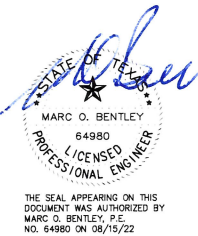
S+A SYSTEMS 2022105

SHEET INDEX

Sheet No.	Description
1	Cover Sheet
2	General Notes 1
3	General Notes 2
4/5	Approved Site Plan/Landscape
C1	Paving Plan
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C3	Drainage Area Map (PRE)
C4	Drainage Area Map (POST)
C5	Water/Sewer Plan
C6	Erosion Control
C7	Phasing Plan (Erosion Control)

Marc Bentley, PE

CIVIL ENGINEER  
1855 EMERALD BAY DRIVE  
ROCKWALL, TEXAS 75087  
PH. 214.957.1406



DECEMBER 2022

RECORD DRAWING

TO THE BEST OF OUR KNOWLEDGE, I HEREBY STATE THAT  
THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS  
BASED ON SURVEYING PERFORMED AT THE SITE BY THE  
CONTRACTOR'S SURVEYOR.  
DATE: AUGUST 17, 2025

ALL RESPONSIBILITY FOR ADEQUACY OF  
DESIGN REMAINS WITH THE DESIGN ENGINEER.  
THE CITY OF ROCKWALL, IN REVIEWING AND  
RELEASING PLANS FOR CONSTRUCTION,  
ASSUMES NO RESPONSIBILITY FOR ADEQUACY  
OR ACCURACY OF DESIGN.

RECORD DRAWING



**GENERAL ITEMS**

1. All construction shall conform to the requirements set forth in the City of Rockwall’s Engineering Department’s “Standards of Design and Construction” and the "Standard Specifications for Public Works Construction" by the North Texas Central Council of Governments, 5th edition amended by the City of Rockwall. The CONTRACTOR shall reference the latest City of Rockwall standard details provided in the Rockwall Engineering Departments "Standards of Design and Construction" manual for details not provided in these plans. The CONTRACTOR shall possess one set of the NCTCOG Standard Specifications and Details and the City of Rockwall's "Standards of Design and Construction" manual on the project site at all times
2. Where any conflicting notes, details or specifications occur in the plans the City of Rockwall General Construction Notes, Standards, Details and Specifications shall govern unless detail or specification is more strict.
3. The City of Rockwall Engineering Departments “Standards of Design and Construction” can be found online at: <http://www.rockwall.com/engr.asp>
4. All communication between the City and the CONTRACTOR shall be through the Engineering Construction Inspector and City Engineer or designated representative only. It is the responsibility of the CONTRACTOR to contact the appropriate department for inspections that do not fall under this approved engineering plan set.
5. Prior to construction, CONTRACTOR shall have in their possession all necessary permits, plans, licenses, etc.
6. The CONTRACTOR shall have at least one original stamped and signed set of approved engineering plans and specifications on-site and in their possession at all times. A stop work order will be issued if items are not on-site. Copies of the approved plans will not be substituted for the required original “approved plans to be on-site”.
7. All material submittals, concrete batch designs and shop drawings required for City review and approval shall be submitted by the CONTRACTOR to the City sufficiently in advance of scheduled construction to allow no less than 10 business days for review and response by the City.
8. All site dimensions are referenced to the face of curb or edge of pavement unless otherwise noted.
9. The City requires ten (10%) percent-two (2) year maintenance bond for paving, paving improvements, water systems, wastewater systems, storm sewer systems including detention systems, and associated fixtures and structures which are located within the right-of-ways or defined easements. The two (2) year maintenance bond is to state “from date of City acceptance” as the starting time.
10. A review of the site shall be conducted at twenty (20) months into the two (2) year maintenance period. The design engineer or their designated representative and the CONTRACTOR shall be present to walk the site with the City of Rockwall Engineering Inspection personnel.

**EROSION CONTROL & VEGETATION**

1. The CONTRACTOR or developer shall be responsible, as the entity exercising operational control, for all permitting as required by the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ). This includes, but is not limited to, preparation of the Storm Water Pollution Prevention Plan (SWPPP), the Construction Site Notice (CSN), the Notice of Intent (NOI), the Notice of Termination (NOT) and any Notice of Change (NOC) and is required to pay all associated fees
2. Erosion control devices as shown on the erosion control plan for the project shall be installed prior to the start of land disturbing activities.
3. All erosion control devices are to be installed in accordance with the approved plans, specifications and Storm Water Pollution Prevention Plan (SWPPP) for the project. Erosion control devices shall be placed and in working order prior to start of construction. Changes are to be reviewed and approved by the design engineer and the City of Rockwall prior to implementation.
4. If the Erosion Control Plans and Storm Water Pollution Prevention Plan (SWPPP) as approved cannot appropriately control erosion and off-site sedimentation from the project, the erosion control plan and/or the SWPPP is required to be revised and any changes reported to the Texas Commission on Environmental Quality (TCEQ), when applicable.
5. All erosion control devices shall be inspected weekly by the CONTRACTOR and after all major rain events, or more frequently as dictated in the project Storm Water Pollution Prevention Plan (SWPPP). CONTRACTOR shall provide copies of inspection’s reports to the engineering inspection after each inspection.
6. The CONTRACTOR shall not dispose of waste and any materials into streams, waterways or floodplains. The CONTRACTOR shall secure all excavation at the end of each day and dispose of all excess materials.
7. CONTRACTOR shall take all available precautions to control dust. CONTRACTOR shall control dust by sprinkling water or other means as approved by the City Engineer.
8. CONTRACTOR shall establish grass and maintain the seeded area, including watering, until a “Permanent Stand of Grass” is obtained at which time the project will be accepted by the City. A “Stand of Grass” (not winter rye or weeds) shall consist of 75% to 80% coverage of all disturbed areas and a minimum of one-inch (1”) in height as determined by the City. No bare spots will be allowed. Re-seeding will be required in all washed areas and areas that don’t grow.
9. All City right-of-ways shall be sodded if disturbed. No artificial grass is allowed in any City right-of-way and/or easements.
10. All adjacent streets/alleys shall be kept clean at all times
11. CONTRACTOR shall keep construction site clean at all times, immediately contain all debris and trash, all debris and trash shall be removed at the end of each work day, and all vegetation on the construction site 10- inches or taller in height must be cut immediately.
12. Suspension of all construction activities for the project will be enforced by the City if any erosion control requirements are not meet. Work may commence after deficiency has been rectified.
13. During construction of the project, all soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. The CONTRACTOR is responsible for the temporary protection and permanent stabilization of all soil stockpiles on-site as well as borrow areas and soil intentionally transported from the project site.
14. Where construction vehicles access routes intersect paved or public roads/alleys, construction entrances shall be installed to minimize the transport of sediment by vehicular tracking onto paved surfaces. Where sediment is transferred onto paved or public surfaces, the surface shall be immediately cleaned. Sediment shall be

removed from the surface by shoveling or sweeping and transported to a sediment disposal area. Pavement washing shall be allowed only after sediment is removed in this manner.

15. All drainage inlets shall be protected from siltation, ineffective or unmaintained protection devices shall be immediately replaced and the inlet and storm system cleaned. Flushing is not an acceptable method of cleaning.
16. During all dewatering operations, water shall be pumped into an approved filtering device prior to discharge into a receiving outlet.

**TRAFFIC CONTROL**

1. All new Detouring or Traffic Control Plans are required to be submitted to the City for review and approval a minimum of 21 calendar days prior to planned day of implementation.
2. When the normal function of the roadway is suspended through closure of any portion of the right-of-way, temporary construction work zone traffic control devices shall be installed to effectively guide the motoring public through the area. Consideration for road user safety, worker safety, and the efficiency of road user flow is an integral element of every traffic control zone.
3. All traffic control plans shall be prepared and submitted to the Engineering Department in accordance with the standards identified in Part VI of the most recent edition of the TMUTCD. Lane closures will not occur on roadways without an approval from the Rockwall Engineering Department and an approved traffic control plan. Traffic control plans shall be required on all roadways as determined by the City Engineer or the designated representative.
4. All traffic control plans must be prepared, signed, and sealed by an individual that is licensed as a professional engineer in the State of Texas. All traffic control plans and copies of work zone certification must be submitted for review and approval a minimum of three (3) weeks prior to the anticipated temporary traffic control.
5. The CONTRACTOR executing the traffic control plan shall notify all affected property owners two (2) weeks prior to any the closures in writing and verbally.
6. Any deviation from an approved traffic control plan must be reviewed by the City Engineer or the designated representative. If an approved traffic control plan is not adhered to, the CONTRACTOR will first receive a verbal warning and be required to correct the problem immediately. If the deviation is not corrected, all construction work will be suspended, the lane closure will be removed, and the roadway opened to traffic.
7. All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time at the end of the workday, all temporary traffic control devices that are no longer appropriate shall be removed or covered. The first violation of this provision will result in a verbal warning to the construction foreman. Subsequent violations will result in suspension of all work at the job site for a minimum of 48 hours. All contractors working on City funded projects will be charged one working day for each 24 hour closure.
8. Lane closures on any major or minor arterial will not be permitted between the hours of 6:00 am to 9:00 am and 3:30 pm to 7:00 pm. Where lane closures are needed in a school area, they will not be permitted during peak hours of 7:00 am – 9:00 am and 3:00 pm to 5:00 pm. Closures may be adjusted according to the actual start-finish times of the actual school with approval by the City Engineer. The first violation of this provision will result in a verbal warning to the construction foreman. Subsequent violations will result in suspension of all work at the job site for a minimum of 48 hours. All contractors working on City funded projects will be charged one working day for each 24 hour closure of a roadway whether they are working or not.
9. No traffic signs shall be taken down without permission from the City.
10. No street/roadway will be allowed to be fully closed.

**UTILITY LINE LOCATES**

1. It is the CONTRACTOR’s responsibility to notify utility companies to arrange for utility locates at least 48 hours prior to beginning construction. The completeness and accuracy of the utility data shown on the plans is not guaranteed by the design engineer or the City. The CONTRACTOR is responsible for verifying the depth and location of existing underground utilities proper to excavating, trenching, or drilling and shall be required to take any precautionary measures to protect all lines shown and .or any other underground utilities not on record or not shown on the plans.
2. The CONTRACTOR shall be responsible for damages to utilities
3. CONTRACTOR shall adjust all City of Rockwall utilities to the final grades.
4. All utilities shall be placed underground.
5. CONTRACTOR shall be responsible for the protection of all existing main lines and service lines crossed or exposed by construction operations. Where existing mains or service lines are cut, broken or damaged, the CONTRACTOR shall immediately make repairs to or replace the entire service line with same type of original construction or better. The City of Rockwall can and will intervene to restore service if deemed necessary and charge the CONTRACTOR for labor, equipment, material and loss of water if repairs aren’t made in a timely manner by the CONTRACTOR.
6. The City of Rockwall (City utilities) is not part of the Dig Tess or Texas one Call – 811 – line locate system. All City of Rockwall utility line locates are to be scheduled with the City of Rockwall Service Center. 972-771-7730. A 48-hour advance notice is required for all non-emergency line locates.
7. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
  - a. No more than 500 linear feet of trench may be opened at one time.
  - b. Material used for backfilling trenches shall be properly compacted to 95% standard density in order to minimize erosion, settlement, and promote stabilization that the geotechnical engineer recommends.
  - c. Applicable safety regulations shall be complied with.
11. This plan details pipes up to 5 feet from the building. Refer to the building plans for building connections. CONTRACTOR shall supply and install pipe adapters as necessary.
12. All underground lines shall be installed, inspected, and approved prior to backfilling.
13. All concrete encasement shall have a minimum of 28 days compressive strength at 3,000 psi (min. 5.5 sack mix).

**WATER LINE NOTES**

1. The CONTRACTOR shall maintain existing water service at all times during construction.
2. Proposed water lines shall be AWWA C900-16 PVC Pipe (blue in color) for all sizes, DR 14 (PC 305) for pipeline sizes 12-inch and smaller, and DR 18 (PC 235) for 14-inch and larger water pipelines unless otherwise shown on water plan and profiles sheets. Proposed water lines shall be constructed with minimum cover of 4 feet for 6-inch through 8-inch, 5 feet for 12-inch through 18-inch and 6 feet for 20-inch and larger.
3. Proposed water line embedment shall be NCTCOG Class 'B-3' as amended by the City of Rockwall's engineering standards of design and construction manual.
4. CONTRACTOR shall coordinate the shutting down of all water lines with the City of Rockwall Engineering Inspector and Water Department. The City shall operate all water valves. Allow 5 business days from the date of notice to allow City personnel time to schedule a shut down. Two additional days are required for the CONTRACTOR to notify residents in writing of the shut down after the impacted area has been identified. Water shut downs impacting businesses during their normal operation hours is not allowed. CONTRACTOR is required to coordinate with the Rockwall Fire Department regarding any fire watch requirements as well as any costs incurred when the loss of fire protection to a structure occurs.
5. CONTRACTOR shall furnish and install gaskets on water lines between all dissimilar metals and at valves (both existing and proposed).
6. All fire hydrants and valves removed and salvaged shall be returned to the City of Rockwall Municipal Service Center.
7. Blue EMS pads shall be installed at every change in direction, valve, curb stop and service tap on the proposed water line and every 250’.
8. All water valve hardware and valve extensions, bolts, nuts and washers shall be 316 stainless steel.
9. All fire hydrants bolts, nuts and washers that are buried shall be 316 stainless steel.
10. Abandoned water lines to remain in place shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product. Valves to be abandoned in place shall have any extensions and the valve box removed and shall be capped in concrete.
11. All fire hydrants will have a minimum of 5 feet of clearance around the appurtenance including but not limited to parking spaces and landscaping.
12. All joints are to be megalug joints with thrust blocking.
13. Water and sewer mains shall be kept 10 feet apart (parallel) or when crossing 2 feet vertical clearance.
14. CONTRACTOR shall maintain a minimum of 4 feet of cover on all water lines.
15. All domestic and irrigation services are required to have a testable backflow device with a double check valve installed per the City of Rockwall regulations at the property line and shown on plans.

**WASTEWATER LINE NOTES**

1. The CONTRACTOR shall maintain existing wastewater service at all times during construction.
2. Wastewater line for 4-inch through 15-inch shall be Green PVC – SDR 35 (ASTM D3034) [less 10 ft cover] and SDR 26 (ASTM D3034) [10 ft or more cover]. For 18-inch and larger wastewater line shall be Green PVC – PS 46 (ASTM F679) [less 10 ft cover] and PS 115 (ASTM F679) [10 ft or more cover]. No services will be allowed on a sanitary sewer line deeper than 10 feet.
3. Proposed wastewater line embedment shall be NCTCOG Class 'H' as amended by the City of Rockwall's public works standard design and construction manual.
4. Green EMS pads shall be installed at every 250’, manhole, clean out and service lateral on proposed wastewater lines.
5. CONTRACTOR shall CCTV all existing wastewater lines that are to be abandoned to ensure that all laterals are accounted for and transferred to proposed wastewater lines prior to abandonment.
6. All abandoned wastewater and force main lines shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product.
7. Existing manholes and cleanouts not specifically called to be relocated shall be adjusted to match final grades.
8. All wastewater pipes and public services shall be inspected by photographic means (television and DVD) prior to final acceptance and after franchise utilities are installed. The CONTRACTOR shall furnish a DVD to the Engineering Construction Inspector for review. Pipes shall be cleaned prior to TV inspection of the pipes. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the CONTRACTOR at the CONTRACTOR’s expense. A television survey will be performed as part of the final testing in the twentieth (20<sup>th</sup>) month of the maintenance period.
9. All manholes (public or private) shall be fitted with inflow prevention. The inflow prevention shall conform to the measures called out in standard detail R-5031.
10. All new or existing manholes being modified shall have corrosion protection being Raven Liner 405 epoxy coating, ConShield, or approved equal.. Consheild must have terracotta color dye mixed in the precast and cast-in-place concrete. Where connections to existing manholes are made the CONTRACTOR shall rehab manhole as necessary and install a 125 mil thick coating of Raven Liner 405 or approved equal.
11. All new or existing manholes that are to be placed in pavement shall be fitted with a sealed (gasketed) rim and cover to prevent inflow.
12. If an existing wastewater main or trunk line is called out to be replaced in place a wastewater bypassing pump plan shall be required and submitted to the Engineering Construction Inspector and City Engineer for approval prior to implementation. Bypass pump shall be fitted with an auto dialer and conform to the City’s Noise Ordinance. Plan shall be to the City sufficiently in advance of scheduled construction to allow no less than 10 business days for review and response by the City.
13. CONTRACTOR shall maintain a minimum of 4 feet of cover on all wastewater lines.



**GENERAL CONSTRUCTION NOTES**  
**Sheet 1 of 2**  
**October 2020**

**CITY OF ROCKWALL**  
**ENGINEERING DEPARTMENT**

385 S. Goliad  
Rockwall, Texas 75087

P (972) 771-7746  
F (972) 771-7748



DEMOLITION, REMOVAL, DISPOSAL AND EXCAVATION NOTES

- 1. All pavements to be removed and replaced shall be saw cut to full depth along neat squared lines shown in the plans.
- 2. Proposed concrete pavement shall be constructed with longitudinal butt construction joints at all connections to existing concrete pavement.
- 3. All public concrete pavement to be removed and replaced shall be full panel replacement, 1-inch thicker and on top of 6-inch thick compacted flexbase.
- 4. No excess excavated material shall be deposited in low areas or along natural drainage ways without written permission from the affected property owner and the City of Rockwall. No excess excavation shall be deposited in the City Limits without a permit from the City of Rockwall. If the CONTRACTOR places excess materials in these areas without written permission, the CONTRACTOR will be responsible for all damages resulting from such fill and shall remove the material at their own cost.

PAVING AND GRADING

- 1. All detention systems are to be installed and verified for design compliance along with the associated storm sewer and outflow structures, prior to the start of any paving operations (including building foundations). Erosion protection shall be placed at the pond outflow structures, silt fence along the perimeter of the pond along with any of the associated erosion BMPs noted on the erosion control plan, and the sides and bottom of the detention system shall have either sod or anchored seeded curlex installed prior to any concrete placement.
- 2. All paving roadway, driveways, fire lanes, drive-isles, parking, dumpster pads, etc. sections shall have a minimum thickness, strength, reinforcement, joint type, joint spacing and subgrade treatment shall at a minimum conform to the City standards of Design and Construction and table below.

Street/Pavement Type	Minimum Thickness (inches)	Streng th 28- Day (psi)	Minimum Cement (sacks / CY)		Steel Reinforcement	
			Machine placed	Hand Placed	Bar #	Spacing (O.C.E.W.)
Arterial	10"	3,600	6.0	6.5	#4 bars	18"
Collector	8"	3,600	6.0	6.5	#4 bars	18"
Residential	6"	3,600	6.0	6.5	#3 bars	24"
Alley	7"-5"-7"	3,600	6.0	6.5	#3 bars	24"
Fire Lane	6"	3,600	6.0	6.5	#3 bars	24"
Driveways	6"	3,600	6.0	6.5	#3 bars	24"
Barrier Free Ramps	6"	3,600	N/A	6.5	#3 bars	24"
Sidewalks	4"	3,000	N/A	5.5	#3 bars	24"
Parking Lot/Drive Aisles	5"	3,000	5.0	5.5	#3 bars	24"
Dumpster Pads	7"	3,600	6.0	6.5	#3 bars	24"

- 3. Reinforcing steel shall be tied (100%). Reinforcing steel shall be set on plastic chairs. Bar laps shall be minimum 30 diameters. Sawed transverse dummy joints shall be spaced every 15 feet or 1.25 time longitudinal butt joint spacing whichever is less. Sawing shall occur within 5 to 12 hours after the pour, including sealing. Otherwise, the section shall be removed and longitudinal butt joint constructed.
- 4. No sand shall be allowed under any paving.
- 5. All concrete mix design shall be submitted to the City for review and approval prior to placement.
- 6. Fly ash may be used in concrete pavement locations provided that the maximum cement reduction does not exceed 20% by weight per C.Y. of concrete. The fly ash replacement shall be 1.25 lbs. per 1.0 lb. cement reduction.
- 7. All curb and gutter shall be integral (monolithic) with the pavement.
- 8. All fill shall be compacted by sheep's foot roller to a minimum 95% standard proctor. Maximum loose lift for compaction shall be 8 inches. All lifts shall be tested for density by an independent laboratory. All laboratory compaction reports shall be submitted to the City Engineering Construction Inspector once results are received. All reports will be required prior to final acceptance.
- 9. All concrete compression tests and soil compaction/density tests are required to be submitted to the City's Engineering Inspector immediately upon results.
- 10. All proposed sidewalks shall include barrier free ramps at intersecting streets, alleys, etc. Barrier free ramps (truncated dome plate in Colonial or brick red color) shall meet current City and ADA requirements and be approved by the Texas Department of Licensing and Regulation (TDLR).
- 11. All public sidewalks shall be doveled into pavement where it abuts curbs and driveways. Expansion joint material shall be used at these locations.
- 12. All connection of proposed concrete pavement to existing concrete pavement shall include a longitudinal butt joint as the load transfer device. All longitudinal butt joints shall be clean, straight and smooth (not jagged in appearance)
- 13. Cracks formed in concrete pavement shall be repaired or removed by the CONTRACTOR at the City's discretion. CONTRACTOR shall replace existing concrete curbs, sidewalk, paving, a gutters as indicated on the plans and as necessary to connect to the existing infrastructure, including any damage caused by the CONTRACTOR.
- 14. All residential lots will require individual grading plans submitted during the building permit process that correspond with the engineered grading and drainage area plans.
- 15. Approval of this plan is not an authorization to grade adjacent properties when the plans or field conditions warrant off-site grading. Written permission must be obtained and signed from the affected property owner(s) and temporary construction easements may be required. The written permission shall be provided to the City as verification of approval by the adjacent property owner(s). Violation of this requirement will result in suspension of all work at the job site until issue has been rectified.
- 16. All cut or fill slopes of non-paved areas shall be a maximum of 4:1 and minimum of 1%.
- 17. CONTRACTOR agrees to repair any damage to property and the public right-of-way in accordance with the City Standards of Design and Construction.
- 18. CONTRACTOR shall protect all monuments, iron pins/rods, and property corners during construction.
- 19. CONTRACTOR shall ensure positive drainage so that runoff will drain by gravity flow to new or existing drainage inlets or sheet flow per these approved plans.

DRAINAGE / STORM SEWER NOTES

- 1. The CONTRACTOR shall maintain drainage at all times during construction. Ponding of water in streets, drives, trenches, etc. will not be allowed. Existing drainage ways shall not be blocked or removed unless explicitly stated in the plans or written approval is given by the City.
- 2. All structural concrete shall be 4200 psi compressive strength at 28 days minimum 7.0 sack mix, air entrained, unless noted otherwise. Fly ash shall not be allowed in any structural concrete.
- 3. Proposed storm sewer embedment shall be NCTCOG Class 'B' as amended by the City of Rockwall's Engineering Department Standards of Design and Construction Manual.
- 4. All public storm pipe shall be a minimum of 18-inch reinforced concrete pipe (RCP), Class III, unless otherwise noted.
- 5. All storm pipe entering structures shall be grouted to assure connection at the structure is watertight.
- 6. All storm structures shall have a smooth uniform poured mortar invert from invert in to invert out.
- 7. All storm sewer manholes in paved areas shall be flush with the paving grade, and shall have traffic bearing ring and covers.
- 8. All storm sewer pipes and laterals shall be inspected by photographic means (television and DVD) prior to final acceptance and after franchise utilities are installed. The CONTRACTOR shall furnish a DVD to the Engineering Construction Inspector for review. Pipes shall be cleaned prior to TV inspection of the pipes. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the CONTRACTOR at the CONTRACTOR's expense. A television survey will be performed as part of the final testing in the twentieth (20<sup>th</sup>) month of the maintenance period.

RETAINING WALLS

- 1. All retaining walls, regardless of height, will be reviewed and approved by the City Engineering Department
- 2. All retaining walls (including foundation stem walls), regardless of height, will be constructed of rock/stone/brick or rock/stone/brick faced. No smooth concrete walls are allowed. Wall materials shall be the same for all walls on the project.
- 3. All portions, including footings, tie-backs, and drainage backfill, of the wall shall be on-site and not encroach into any public easements or right-of-way. The entire wall shall be in one lot and shall not be installed along a lot line.
- 4. All walls 3 feet and taller will be designed and signed/sealed by a registered professional engineer in the State of Texas. The wall design engineer is required to inspect the wall construction and supply a signed/sealed letter of wall construction compliance to the City of Rockwall along with wall as-builts prior to City Engineering acceptance.
- 5. No walls are allowed in detention easements. A variance to allow retaining walls in a detention easement will require approval by the Planning and Zoning Commission with appeals being heard by the City Council.

FINAL ACCEPTANCE AND RECORD DRWINGS/AS-BUILTS

- 1. Final Acceptance shall occur when all the items on the Checklist for Final Acceptance have been completed and signed-off by the City. An example of the checklist for final acceptance has been included in the Appendix of the Standards of Design and Construction. Items on the checklist for final acceptance will vary per project and additional items not shown on the check list may be required.
- 2. After improvements have been constructed, the developer shall be responsible for providing to the City "As Built" or "Record Drawings". The Design Engineer shall furnish all digital files of the project formatted in Auto Cad 14, or 2000 format or newer and Adobe Acrobat (.pdf) format with a CD-ROM disk or flash drive. The disk or drive shall include a full set of plans along with any landscaping, wall plans, and details sheets.
- 3. Submit 1-set of printed drawings of the "Record Drawings" containing copies of all sheets to the Engineering Construction Inspector for the project. The printed sheets will be reviewed by the inspector PRIOR to producing the "Record Drawing" digital files on disk or flash drive. This will allow any revisions to be addressed prior to producing the digital files.
- 4. Record Drawing Disk drawings shall have the Design Engineers seal, signature and must be stamped and dated as "Record Drawings" or "As Built Drawings" on all sheets.
- 5. The City of Rockwall will not accept any Record Drawing disk drawings which include a disclaimer. A disclaimer shall not directly or indirectly state or indicate that the design engineer or the design engineer's surveyor/surveyors did not verify grades after construction, or that the Record Drawings were based solely on information provided by the construction contractor/contractors. Any Record Drawings which include like or similar disclaimer verbiage will not be accepted by the City of Rockwall.
- 6. Example of Acceptable Disclaimer: "To the best of our knowledge ABC Engineering, Inc., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor."



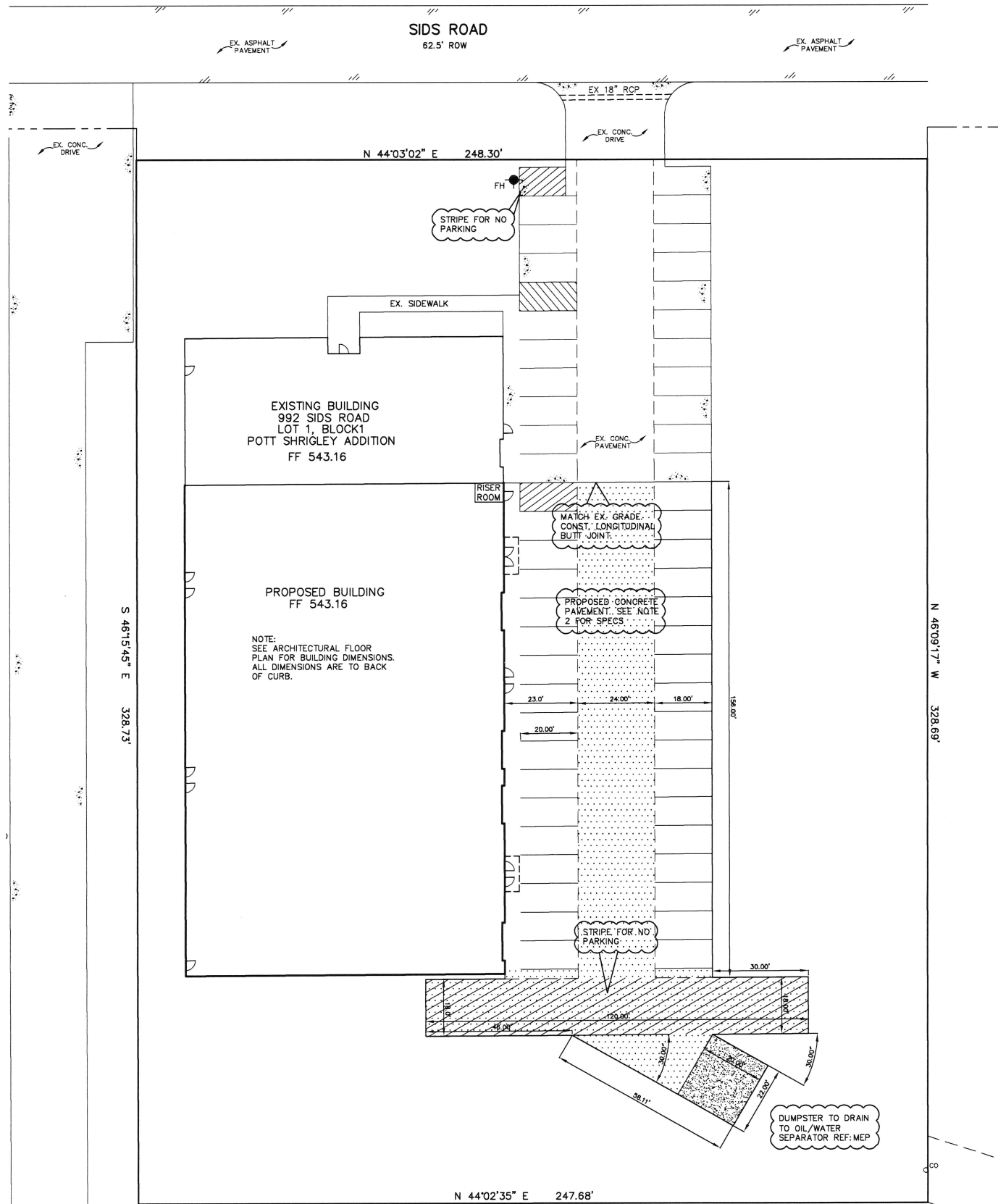
GENERAL CONSTRUCTION NOTES  
Sheet 2 of 2  
October 2020

CITY OF ROCKWALL  
ENGINEERING DEPARTMENT

385 S. Goliad  
Rockwall, Texas 75087

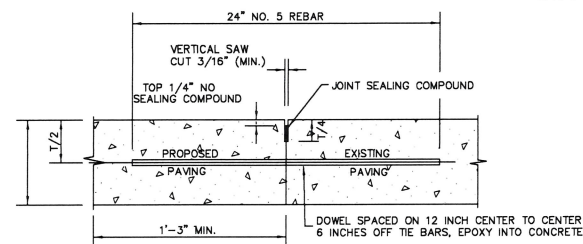
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F (972) 771-7748





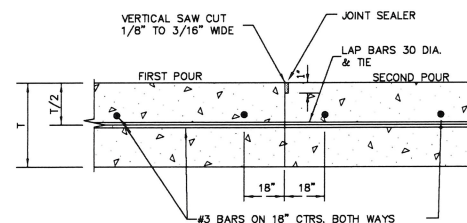
LEGEND

- INDICATES 8" FIRE LANE PAVING  
SEE NOTE 2 FOR CONCRETE SPECS.
- INDICATES 8" DUMPSTER PAVING  
SEE NOTE 2 FOR CONCRETE SPECS.
- INDICATES ALL OTHER 6" PAVING  
SEE NOTE 2 FOR CONCRETE SPECS.



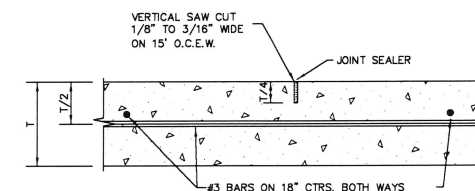
LONGITUDINAL BUTT JOINT

NOTE:  
DOWEL BARS SHALL BE DRILLED INTO PAVEMENT  
HORIZONTALLY BY USE OF A MECHANICAL RIG.



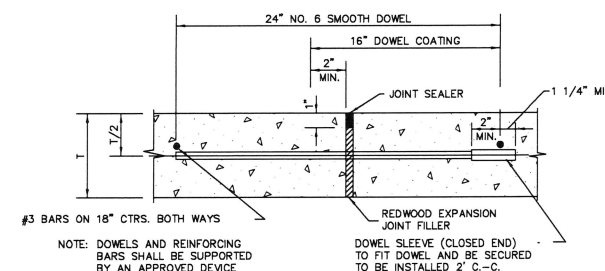
CONSTRUCTION JOINT DETAIL

NO SCALE



CONTROL JOINT DETAIL

NO SCALE



TRANSVERSE EXPANSION JOINT DETAIL

NOTE: SPACE 60' O.C., LOCATE AT INTERSECTIONS

PAVING GENERAL NOTES

- Paving shall be as noted on the plans and as described below. The general guidelines for grading handicap pavement areas shall be no slope greater than 1:50 in the parking lot spaces. Sidewalks and pedestrian crosswalks shall have no longitudinal slope greater than 1:20 and no cross slope greater than 1:50.
- Construction of the parking lot paving areas shall be: 6 inches portland cement concrete conforming to TxDOT Item 360 and have a minimum 28 day compressive strength of 3600 psi (6.5 sack mix). Reinforce the concrete with #3, grade 60 ribbed steel bars spaced at 18 inches on center each way. Maximum aggregate size is 1.5 inches. Dumpster pad and approach slab as indicated on the plans shall be 8 inch 3600 psi concrete with #4 bars 18" o.c.e.w. Fire lane pavement shall be 8 inch 3600 psi concrete with #3 bars 18" o.c.e.w. per City Specifications.
- Control joints shall be cut into the concrete paving in the parking lot area at 15 foot intervals. Joints are to be 1-1/2" deep. Cut joints the next day after the pour. Wash and clean pavement after sawcutting to remove all sluff mud. Chipped edges along the sawcut will not be accepted. Fill all joints with a backer rod and sealant.
- Joints should be continuous across the slab unless interrupted by full-depth premolded joint filler, and should extend completely.
- All control joints, construction joints and isolations joints shall be sealed completely before opening lot to traffic.
- Provide a premolded joint filler where concrete abuts building walls. Also wrap base of bollards with the same. Fill top of joint with sealant.
- Parking lot striping are to be painted white. Fire lane striping is to be painted red with white letters stating, "Fire Lane No Parking". Handicap symbols are painted blue with white trim. Loading zone, HC spaces and crosswalk are painted yellow.
- All exposed concrete paving, driveways and curbs are to receive a consistent, light and even broom finish before curing. Protect all work from inclement weather as well as protecting adjacent work from concrete spills, splashes and stains. Any work that is not acceptable to the Owner will be removed and replaced.
- The construction of all 4 inch concrete flatwork is typical to the 6 inch concrete paving including placement, reinforcement and finish. Control joints shall be hand tooled 1/4" wide and 3/4" deep and left unsealed. Joints are spaced on 5 foot centers.
- The contractor shall repaint existing fire lane per City code. Fire lane turn around area shall be striped for no parking as indicated on this sheet.

TYPICAL PAVING DETAILS

RECORD DRAWING

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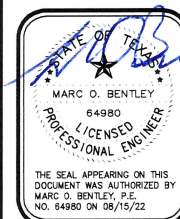
DATE: AUGUST 17, 2025

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OR ACCURACY OF DESIGN.

Marc Bentley, PE

CIVIL ENGINEER

1855 EMERALD BAY  
ROCKWALL, TEXAS 75087  
PH: 214.957.1406



PAVING PLAN

S & A SYSTEMS, INC  
CITY OF ROCKWALL, TEXAS

RECORD DRAWING

Revision

Date

No.

Scale: 1"=20'

File Name: BASESITE

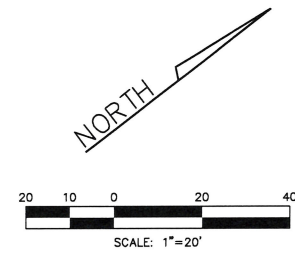
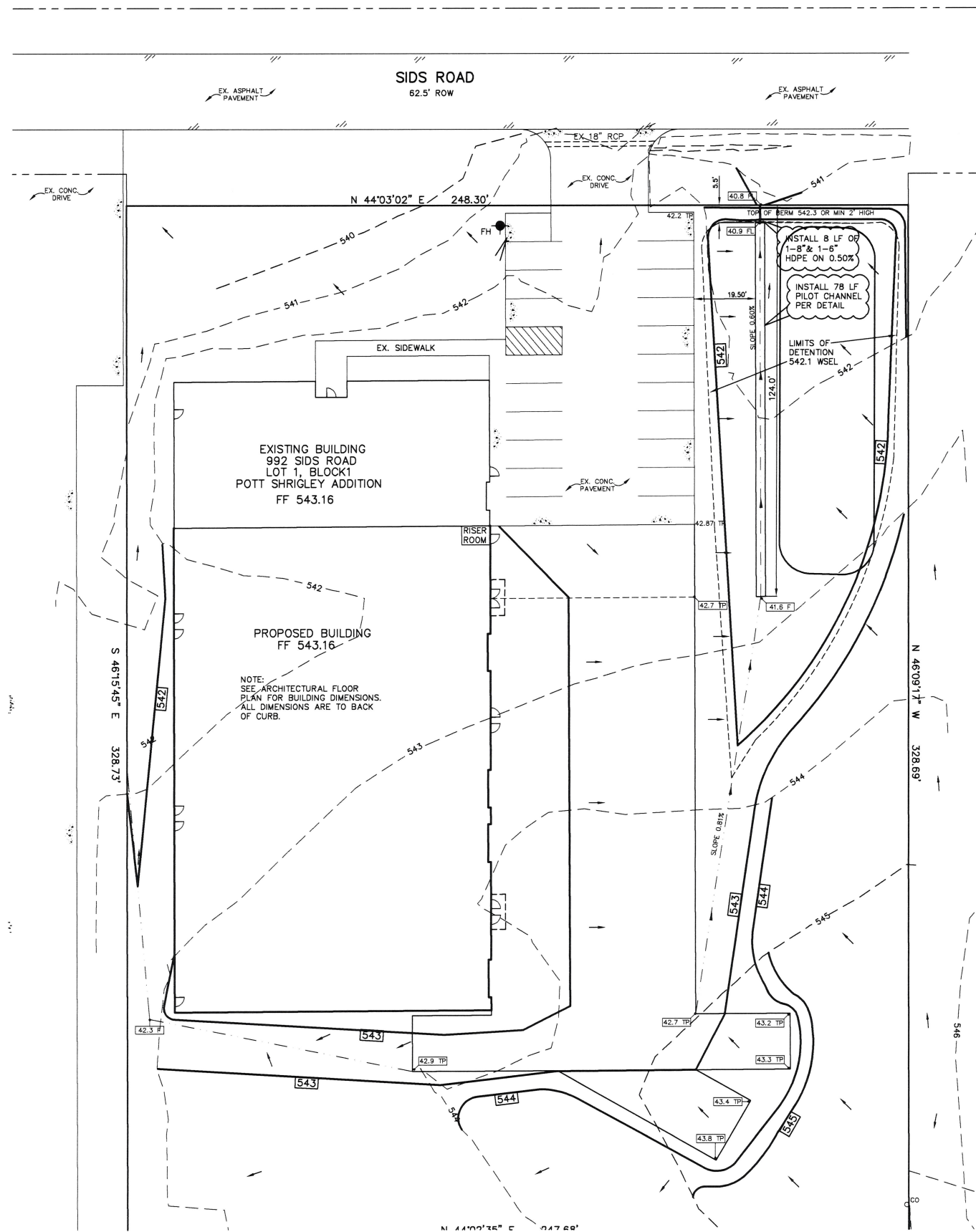
Date: AUG 2022

Project No.: 2022105

Sheet

C1





- GRADING GENERAL NOTES
1. All work shall be in accordance with these plans, City of Rockwall Standards and NCTCOG 3rd Edition.
  2. All proposed contours are approximate. Proposed spot elevations and designated gradient are to be used in the event of any discrepancies.
  3. The General Contractor and all subcontractors shall verify the suitability of all existing and proposed site conditions including grades and dimensions before commencement of any construction. In the event of any conflict and prior to commencement of any construction, immediately notify Engineer. Minor adjustments of finished grade to accomplish spot drainage are acceptable.
  4. All spot elevations are top of pavement or gutter. To obtain top of curb elevation, add 0.5 feet, unless otherwise noted.
  5. Ground shall be scarified prior to placing any fill.
  6. Fill shall be placed in accordance with the geotechnical investigation and soils report recommendations, if available and in compliance with City of Rockwall Ordinances.
  7. It is the responsibility of the Contractor to locate and/or establish a benchmark prior to construction and maintain the benchmark during construction.
  8. The locations of all utilities indicated on the plans are taken from available public records. The exact location and depth of all utilities indicated must be determined by the Contractor. It shall be the duty of the Contractor to ascertain whether any additional facilities other than those shown on the plans may be present.
  9. All fill shall be compacted with sheepfoot roller to a density of 95% std. proctor.
  10. Positive drainage shall be provided away from all foundations and structures.
  11. Any areas disturbed in City right-of-way shall be sodded.

- LEGEND
- 565-- EXISTING CONTOURS
  - 565** PROPOSED CONTOURS
  - TC 62.1 EX. SPOT ELEVATION
  - 62.1** PROP. SPOT ELEVATION
  - FLOW DIRECTION
  - VALLEY
  - - - DRAINAGE DIVIDE
  - TP TOP OF PAVEMENT
  - F FINISHED GRADE
  - FL FLOW LINE

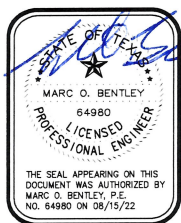
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**Marc Bentley, PE**  
CIVIL ENGINEER  
1855 EMERALD BAY  
ROCKWALL, TEXAS 75087  
PH: 214.957.1406



**GRADING PLAN**  
S & A SYSTEMS, INC  
CITY OF ROCKWALL, TEXAS

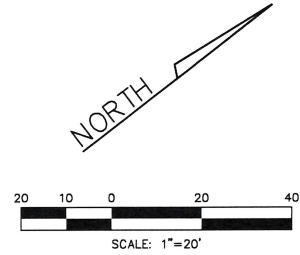
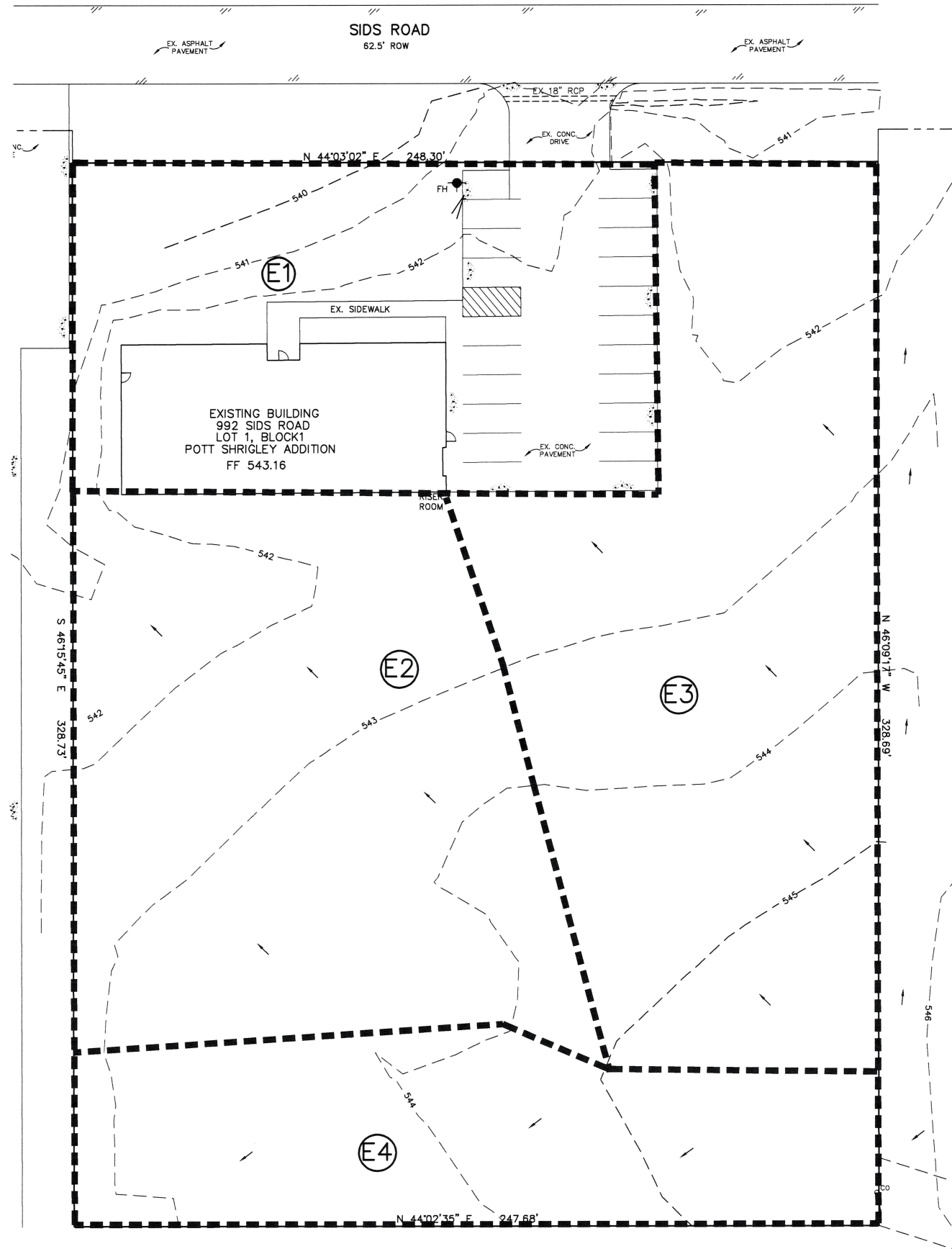
**RECORD DRAWING**

No.	Date	Revision

Scale: 1"=20'  
File Name: BASESITE  
Date: AUG 2022  
Project No.: 2022105

Sheet  
**C2**





PREDEVELOPMENT RUNOFF CALCULATIONS						
AREA NO.	ACRES	TC (min)	"C"	"100" (IN./HR.)	"Q100" (cfs)	DISCHARGE TO
E1	0.43	10	0.9	9.8	2.6	SIDS ROAD
E2*	0.52	20	0.35	8.3	1.5	PROP. SOUTH
E3*	0.58	20	0.35	8.3	1.7	SIDS ROAD
E4*	0.34	20	0.35	8.3	0.9	PROP. EAST

\* - UNDEVELOPED

- LEGEND**
- DRAINAGE AREA BOUNDARY
  - DRAINAGE AREA DESIGNATION

**RECORD DRAWING**

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PREDEVELOPMENT

**DRAINAGE AREA MAP**

**S & A SYSTEMS, INC**  
**CITY OF ROCKWALL, TEXAS**

**RECORD DRAWING**

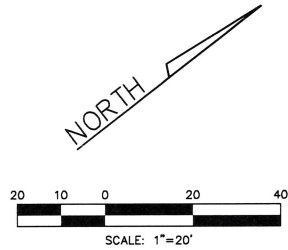
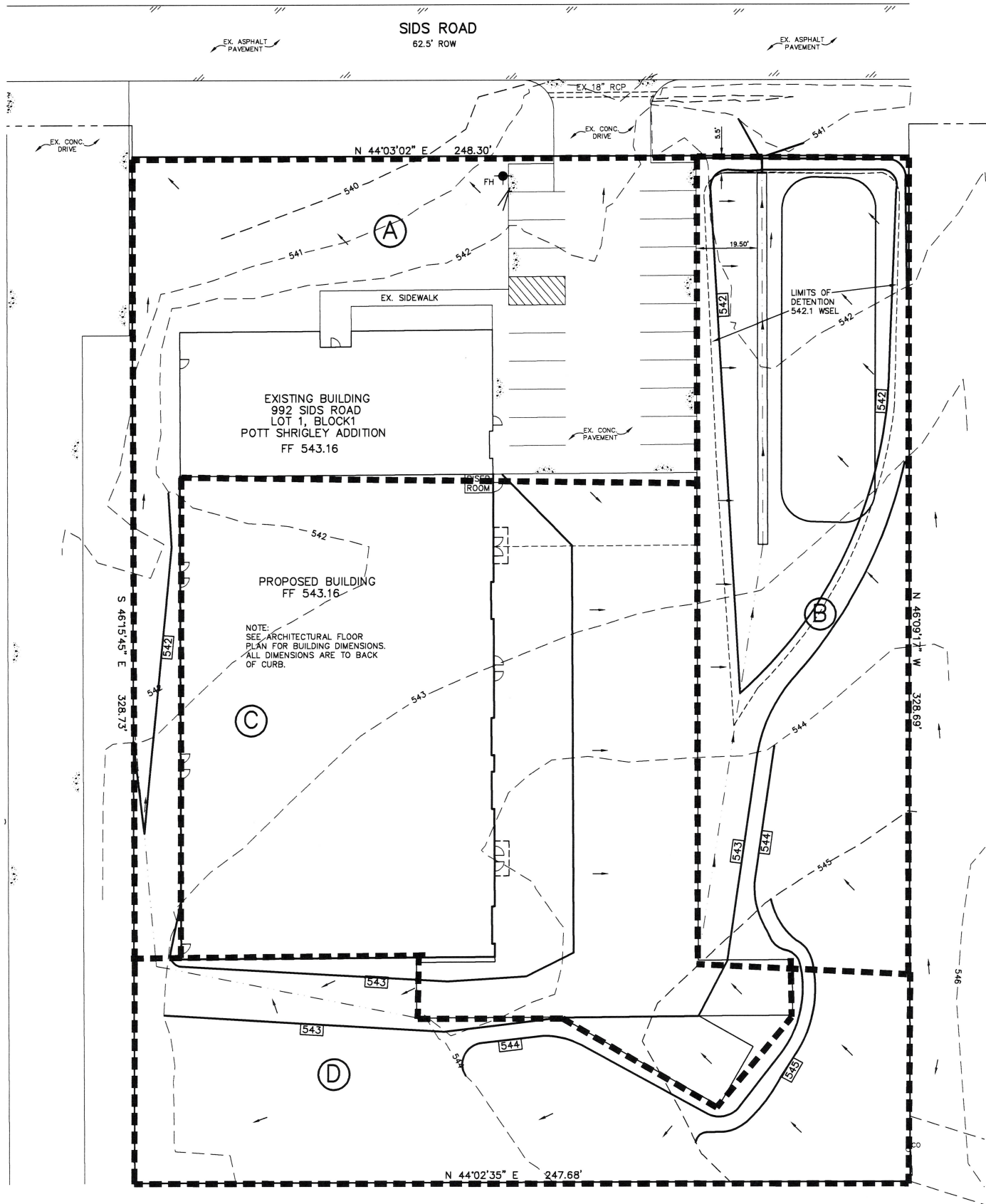
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Date: AUG 2022  
Project No.: 2022105

Sheet **C-3**

**Marc Bentley, PE**  
CIVIL ENGINEER  
1855 EMERALD BAY  
ROCKWALL, TEXAS 75087  
PH: 214.957.1406







STORM WATER RUNOFF CALCULATIONS						
AREA NO.	ACRES	TC (min)	"C"	"I100" (IN./HR.)	"Q100" (cfs)	DISCHARGE TO
A	0.52	10	0.9	9.8	4.6	SIDS ROAD
B*	0.40	10	0.35	9.8	1.4	SIDS ROAD
C**	0.58	10	0.9	9.8	4.9	SIDS ROAD
D*	0.37	10	0.35	9.8	1.3	ADJACENT PROPERTY

\* - INDICATES AREAS TO REMAIN GRASS AND UNDEVELOPED  
\*\* - INDICATES DETENTION CALCULATION AREA

LEGEND

- DRAINAGE AREA BOUNDARY  
Ⓐ DRAINAGE AREA DESIGNATION

DETENTION CALCULATIONS

Undeveloped Discharge  
Area = 0.58 Acres  
Cres = 0.35  
I100 = 8.3  
TC = 20 min  
Q(undeveloped) = 1.68 cfs

Storm Duration calculations CA = (0.9)(0.58) = 0.52  
10min = 9.8 Q = 5.1  
20min = 8.3 Q = 4.3  
30min = 6.9 Q = 3.6  
40min = 5.8 Q = 3.0  
50min = 5.0 Q = 2.6  
60min = 4.5 Q = 2.3  
70min = 4.0 Q = 2.1  
80min = 3.7 Q = 1.9  
90min = 3.5 Q = 1.8  
100min = 3.4 Q = 1.7  
110min = 3.2 Q = 1.6

Volume Determination		
10min	10 x 5.1 x 60 = 3060 0.5 x 20 x 1.68 x 60 = 1008 2052 c.f.	
20min	20 x 4.3 x 60 = 5160 0.5 x 30 x 1.68 x 60 = 1512 3648 c.f.	
30min	30 x 3.6 x 60 = 6480 0.5 x 40 x 1.68 x 60 = 2016 4464 c.f.	
40min	40 x 3.0 x 60 = 7200 0.5 x 50 x 1.68 x 60 = 2520 4680 c.f.	
50min	50 x 2.6 x 60 = 7800 0.5 x 60 x 1.68 x 60 = 3024 4776 c.f.	
60min	60 x 2.3 x 60 = 8280 0.5 x 70 x 1.68 x 60 = 3528 4752 c.f.	
70min	70 x 2.1 x 60 = 8820 0.5 x 80 x 1.68 x 60 = 4032 4788 c.f.	
80min	80 x 1.9 x 60 = 9120 0.5 x 90 x 1.68 x 60 = 4536 4584 c.f.	
90min	90 x 1.8 x 60 = 9720 0.5 x 100 x 1.68 x 60 = 5040 4680 c.f.	
100min	100 x 1.7 x 60 = 10200 0.5 x 110 x 1.68 x 60 = 5544 4656 c.f.	
110min	110 x 1.6 x 60 = 9600 0.5 x 120 x 1.68 x 60 = 6048 3552 c.f.	

\* Volume Required: 4,788 cf  
Volume Provided: 4,852 cf

RELEASE RATE CALCULATION				
STORM EVENT	VOLUME REQ.	AVG DEPTH OF POND	ALLOWABLE DISCHARGE**	ACTUAL DISCHARGE
10 yr	3,361	0.56'	2.23 cfs	2.25 cfs
25 yr	3,921	0.64'	2.52 cfs	2.50 cfs
50 yr	4,306	0.72'	2.78 cfs	2.80 cfs
100 yr	4,788	0.80'	3.08 cfs	3.0 cfs

\*\* UNDEVELOPED AREAS C + B = Qa

DISCHARGE CALCULATION 100 YR

ALLOWABLE DISCHARGE  
UNDEVELOPED AREAS C (1.68)+ B(1.4) = 3.08 CFS  
 $Q = CA\sqrt{2gh}$   
 $Q = (0.62)(0.55)\sqrt{(2)(32.2)(1.2)}$   
 $Q = 2.99$  cfs

RECORD DRAWING

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POSTDEVELOPMENT

DRAINAGE AREA MAP

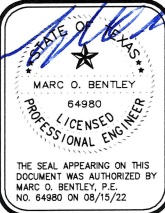
S & A SYSTEMS, INC  
CITY OF ROCKWALL, TEXAS

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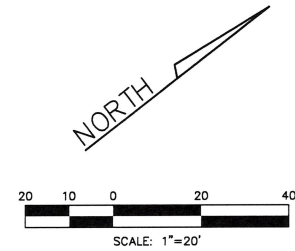
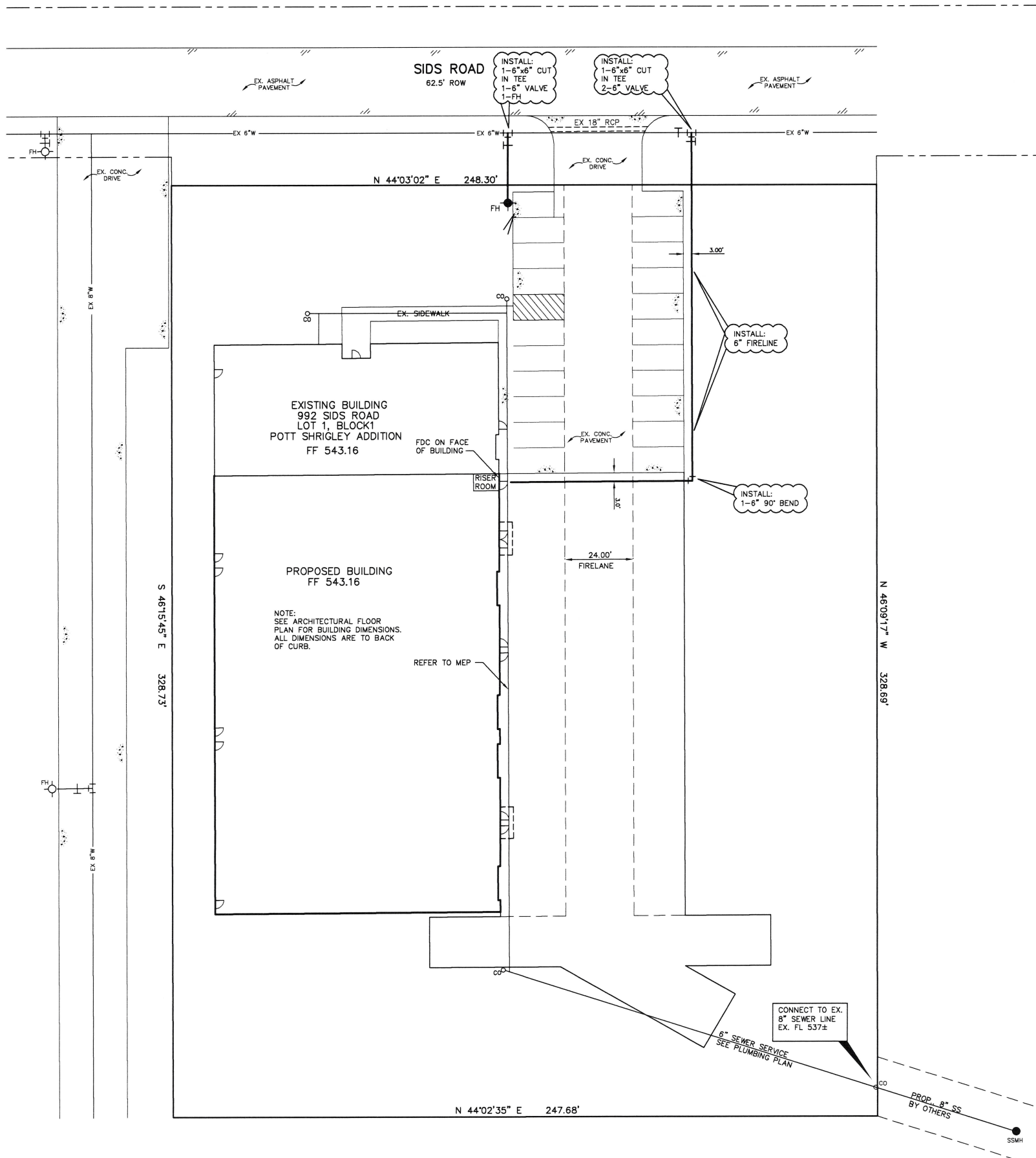
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Sheet C4

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1855 EMERALD BAY  
ROCKWALL, TEXAS 75087  
PH. 214.957.1406







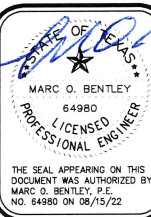
- GENERAL NOTES
1. All work shall be in accordance with these plans, City of Rockwall Standards and NCTCOG 5TH Edition.
  2. Two year maintenance bonds on water and sewer to be furnished by the contractor.
  3. Engineering department is to be notified 48 hours prior to any construction.
  4. All water lines to have 48 inch minimum cover or as required to clear other utilities.
  5. Water mains shall be Class 200 PVC, DR-14, sizes 8" to 15".
  6. Fire hydrants shall be Mueller No. 24015 or equal.
  7. Manhole rings and covers shall be 400# or bolt on.
  8. Contractor shall use PVC SDR 26 Sewer pipe. PVC pipe shall have a maximum deflection of 5% (as per City of Rockwall Specifications.)
  9. Valves shall be resilient seat gate valves.
  10. Trench excavation for trenches 5 feet or more in depth shall be in accordance with all provisions of Part 1926, Subpart P - Excavations, Trenching and shoring of the Occupational Safety and Health's Standards and Interpretations. It shall be the responsibility of the Contractor to conform to the above stated provisions and to supply Trench Safety Plans if required by the City.
  11. The locations of all utilities indicated on the plans are taken from available public records. The exact location and depth of all utilities indicated must be determined by the Contractor. It shall be the duty of the Contractor to ascertain whether any additional facilities other than those shown on the plans may be present.
  12. It shall be the responsibility of the Contractor to protect all existing utilities in the construction of this project. Any utilities damaged during the construction of this project shall be repaired at the Contractor's expense.
  13. NOT USED
  14. Megalugs at all change in direction
  15. Blue EMS locator pads to be installed on the waterline at every bend, service, and valve.
  16. Fire hydrants shall have 5' clearance around, and min 3' from back of curb.
  17. Water and Sanitary Sewer service lines indicated on this plan are schematic in nature. Contractor / Plumber shall verify location of utilities exiting building prior to installation of service line from meter or main line.
  18. Green EMS locator pad shall be installed on sewer line where the service connects to main and at double cleanout.

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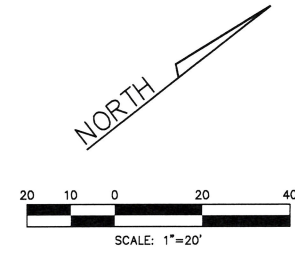
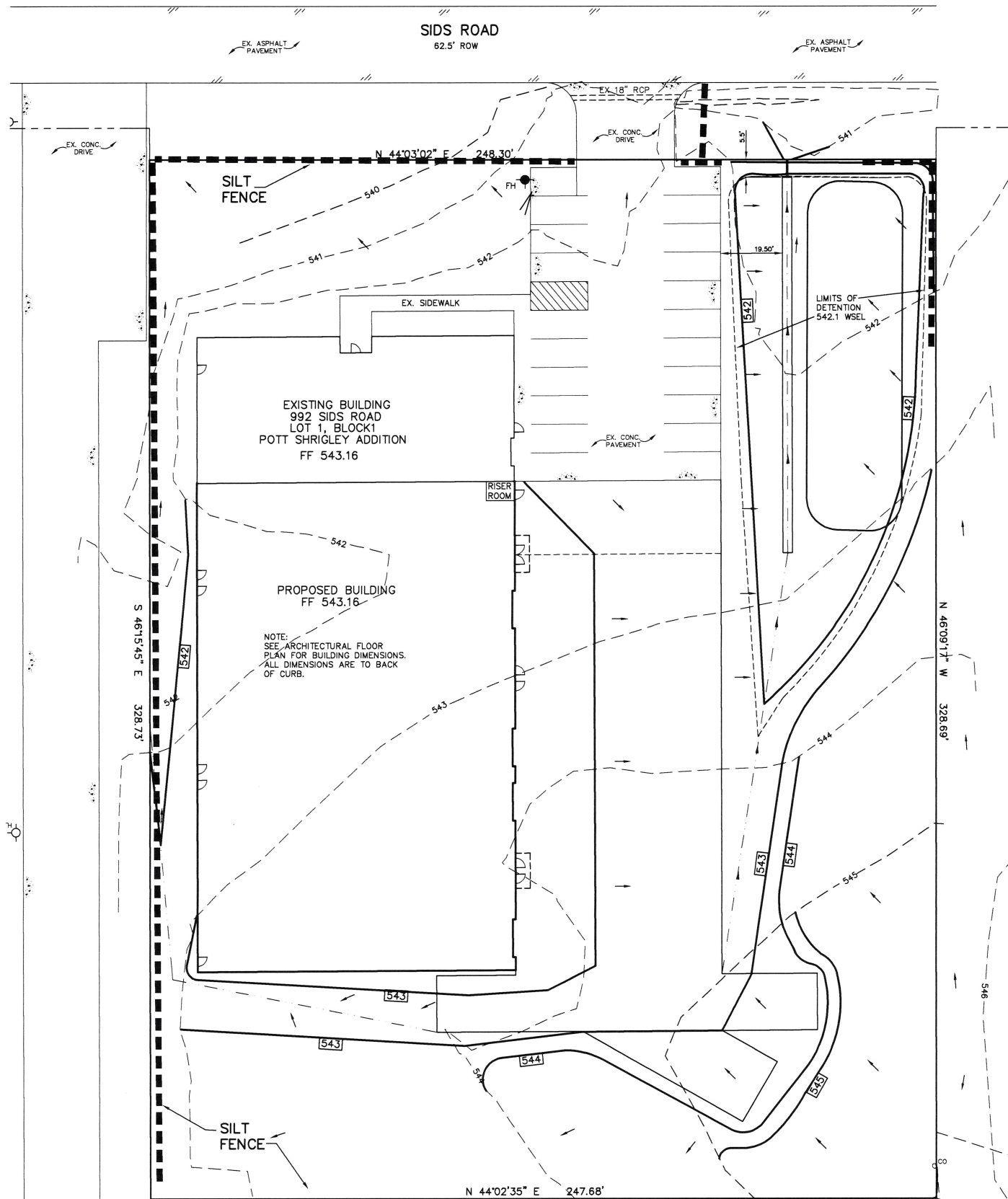
WATER/SEWER PLAN  
S & A SYSTEMS, INC  
CITY OF ROCKWALL, TEXAS

RECORD DRAWING  
No. Date Revision

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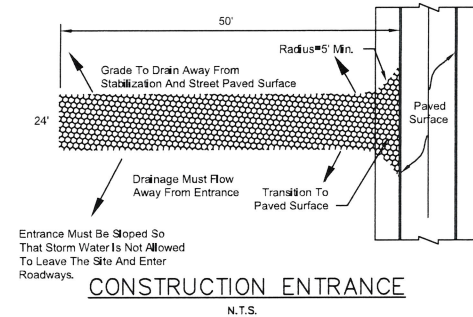
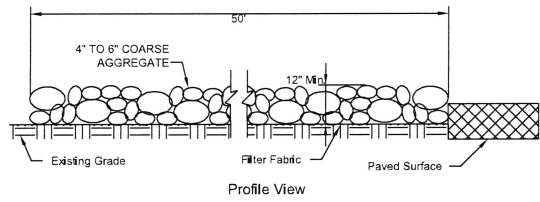
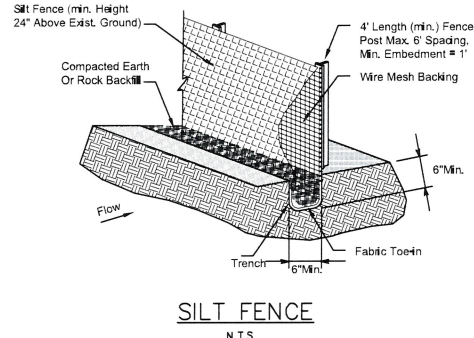
Sheet  
C5





EROSION CONTROL SPECIFICATIONS

- 1. The Contractor shall provide and maintain erosion control devices in the areas indicated on the Erosion Control Plan or any other areas as directed by the Owner's representative.
- 2. Site entry and exit locations shall be maintained in a condition which will prevent tracking or flowing of sediment onto public roadways. All sediment spilled, dropped, washed or tracked onto a public roadway must be removed immediately. When washing is required to remove sediment prior to entrance to a public roadway, it shall be done on an area stabilized with crushed stone which drains into an approved sediment basin. All fines imposed for tracking onto public roads shall be paid by the Contractor.
- 3. Temporary seeding or other method of stabilization shall be initiated within 14 days of the last disturbance on any area of the site, unless additional construction on the area is expected within 21 days of the last disturbance.
- 4. Upon completion of fine grading by Paving and Grading Contractor, all areas not otherwise permanently stabilized shall be seeded and maintained until a uniform coverage of 70% minimum density, as determined by the Owner's representative, is achieved.
- 5. Erosion control devices may be added or reduced in the field as directed by the Owner's representative.
- 6. Contractor shall install and use a temporary pit or basin for on-site disposal of concrete waste from mixing drums and chutes. Waste material will not be discharged to vacant lots, streets and drainage right-of-ways, etc.
- 7. If pumps are used to remove water from excavated areas, filter the discharge to remove sediment and other pollutants before the water leaves the site.
- 8. MAINTENANCE - Erosion controls shall be repaired or replaced as inspection deems necessary or as directed by the Owner's representative. Accumulated silt at any erosion control device shall be removed when it reaches a depth of 6", and shall be distributed on site in a manner not contributing to additional siltation. Contractor shall inspect erosion devices within 24 hours after a storm event of 1/2 inch or greater.
- 9. The Contractor is responsible for re-establishing any erosion control device which he disturbs. Each Contractor shall notify the Owner's representative of any deficiencies in the established erosion control measures which may lead to unauthorized discharge of storm water pollution, sedimentation, or other pollutants. Unauthorized pollutants include, but are not limited to, excess concrete dumping or concrete residue, paints, solvents, greases, fuel and lube oil, pesticides, and solid waste materials.



GENERAL NOTES:

- 1. SEE SHT C7 FOR PHASING PLAN.
- 2. NO ADJACENT SURFACE WATERS.
- 3. NO ADJACENT WETLANDS.
- 4. CONTRACTOR SHALL DETERMINE LOCATION OF STABILIZED ENTRANCE TO BEST FACILITATE CONSTRUCTION ACTIVITIES.

DISTURBED AREA = 1.5 AC

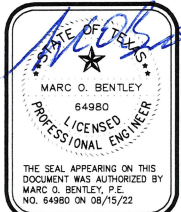
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EROSION CONTROL  
S & A SYSTEMS, INC  
CITY OF ROCKWALL, TEXAS

RECORD DRAWING

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