- 2. The Contractor shall have in his possession, prior to construction, all necessary permits, licenses, etc. The Contractor shall have at least one set of approved Engineering Plans and Specifications on-site at all times. The Contractor shall notify the City of Rockwall 48 hours prior to the commencement of
- 3. All materials and construction shall conform to the City of Rockwall Standard Construction Details for Paving, Drainage, Water and Sanitary Sewer Facilities and be installed in accordance with the City Specifications and the 3rd Edition North Central Texas Council of Governments Standard Specifications for Public Works Construction. These specifications shall be made part of these plans.
- 4. In the event an item of work is not covered in the City of Rockwall Construction Standards, Specifications and Details; or the 3rd Edition North Central Texas Council of Governments Standard Specifications for Public Works Construction: the City Engineer shall have the final decision on all materials, methods and procedures.
- 5. Construction inspection may be performed by representatives of the Owner, Engineer, City, Geotechnical Engineer and Reviewing Authorities and Agencies. Unrestricted access shall be provided to them at all times. The Contractor is responsible for understanding and scheduling required inspections.
- 6. All contractors must confine their activities to the work area. No encroachments outside of the defined work area will be allowed, unless specifically noted on the plans. Any damage resulting therefrom shall be the Contractor's responsibility to repair.
- 7. It will be the responsibility of each contractor to protect all existing public and private utilities throughout the construction of this project. The Contractor shall contact the appropriate utility companies for line locations prior to commencement of construction and shall assume full liability to those companies for any damages caused to their facilities.
- 8. The Contractor shall be responsible for providing the required construction staking necessary to complete the construction in accordance with the plans and specifications.
- 9. The Contractor shall be responsible for providing and maintaining all necessary barricading and all other warning and safety devices to protect the public safety and health until all work has been completed and accepted.
- 10. If unforseen problems or conflicts are encountered in the course of construction, for which an immediate solution is not apparent, the Engineer and Owner shall be notified immediately.
- 11. The Contractor shall be responsible for field locating existing utilities and improvements prior to construction. The locations of existing utilities shown on these plans are approximate. The Contractor shall call 1-800-344-8377 (DIG-TESS), other utility locating services or the underground utility companies a minimum of 48 hours prior to beginning work.
- 12. The Contractor shall employ an Owner approved engineering testing laboratory for all required density, construction and materials testing and water bacteria testing. The testing laboratory shall make tests necessary to insure that construction is in accordance with the approved plans and specifications. Any retesting necessary to insure that a prior failing test meets the plan requirements, shall be at the Contractor's expense. The testing laboratory shall submit testing reports to the Engineer, the Owner and the City of Rockwall.
- 13. The existing utilities shown on these plans have been located from reference information obtained from the respective owner of the utility. The Engineer and Owner do not accept responsibility for the utility locations as shown. It shall be the responsibility of the Contractor to verify the location of all existing utilities prior to construction, to take necessary precautions to protect all facilities encountered and to notify the Engineer promptly of any conflicts with existing facilities.
- 14. The Contractor shall be responsible for removing any existing structures, fences, debris or trees that are located within the boundaries of this project, unless otherwise noted on the plans.
- 15. The Contractor shall remove and dispose of all unsuitable excavated materials and construction debris at no additional cost to the Owner.
- 16. The Contractor shall be solely responsible for maintaining trench safety requirements in accordance with the trench safety plan prepared by others and in accordance with City Standards, Texas State Law and the Occupational Safety and Health Administration Standards.
- 17. All concrete shall meet the minimum compressive strengths as noted and specified on the plans or other specifications. As a minimum, no concrete shall have a compressive strength less than 3,000 psi at 28 days.
- 18. Refer to the architectural plans for building and foundation dimensions.
- 19. The Contractor shall be responsible for providing a two (2) year, 100% maintenance bond to the Owner for all improvements associated with the approved plans. The contractor shall provide a two (2) year maintenance bond to the City of Rockwall for all public improvements.

GRADING NOTES:

- 1. All grading shall be performed in accordance with these plans and the geotechnical report prepared by others.
- 2. New finished contours shown are top of paving in areas to receive pavement and top of soil in areas to be seeded.
- 3. Areas outside of parking lot perimieter shown to be seeded shall receive a minimum of four (4) inches of top soil (or to depth identified on the Landscaping Plans). This topsoil to be placed and leveled by the grading contractor. This material may be stockpiled during stripping operations.
- 4. Rough grading elevations shall be as follows: A. Four (4) inches below finished contours in seeded
- B. Six (6) inches below finished contours in paved areas, unless noted otherwise.
- 5. Dimensions on buildings are for grading purposes only and are not intended for use in laying out the building foundation.
- 6. Contractor shall pay all costs associated with raising or lowering existing utility appurtenances as required to match finished grades in conformance with City of Rockwall Standards and these
- 7. The Contractor shall use whatever measures are required to prevent silt and construction debris from leaving the site. Contractor shall comply with all Federal, State and Local erosion, conservation and siltation regulations. Contractor shall remove all temporary erosion control devices upon completion of permanent drainage facilities and the establishment of vegetation sufficient to prevent erosion. Any damage to adjacent properties; downstream channels, ponds or lakes; or wildlife shall be corrected by the Contractor at his expense.
- 8. The Contractor shall take all available precautions to control dust at no additional cost to owner.
- 9. All excavation is unclassified and shall include all materials encountered.
- 10. All areas not covered by the building, paving or proposed landscaping shall be grassed on this lot including adjacent street
- 11. Prior to the commencement of construction activities, the Contractor shall stake out and mark the items established by the site plan.
- 12. Temporary erosion control devices shall be installed prior to the commencement of grading activities. Contractor shall inspect and maintain all temporary erosion control devices as required.
- 13. All disturbed areas shall be seeded with hydromulch unless otherwise noted. The Contractor shall maintain as much existing vegetation as possible. Grass buffer strips shall remain around the perimeter of the property to aid in the filtering of sedimentation. Sufficient temporary or permanent groundcover shall be established on all slopes, berms and swales to prevent erosion.
- 14. All site grading and earthwork shall comply to the geotechnical report recommendations.
- 15. These specifications do not include grading and preparation of the building foundation area. The Contractor shall confirm the foundation compaction, moisture control, select fill and/or treatment with the Owner, the project geotechnical engineer and structural engineer.
- 16. Areas within five (5) feet horizontally of the parking pavement and/or embankment slopes adjacent to the parking area shall be constructed as per the project geotechnical engineer's recommendations. The specifications identified below are minimum requirements and shall be superseded by the project geotechnical engineer's recommendations if in conflict. The specifications are as follows:
 - A. The area shall be stripped of vegetation a minimum of six (6) inches or as directed by the project geotechnical engineer and proofrolled. Proofrolling consists of rolling the entire area of prepared subgrade with a heavy (25 ton or greater total weight) pneumatic tired roller. The roller shall make several passes over the area. Any soft, wet or weak areas which do not compact by proofrolling shall be removed and recompacted as outlined herein. The proofrolling operation must be performed under the observation of a qualified geotechnical engineer or his representative and density control tested.
 - B. On—site soils with plasticity index (PI) anticipated to be greater than 15, which includes any dark colored surface clay soils, can be used as grade raise fill outside the proposed building area. These clay soils shall be compacted to a dry density of at least 95 percent of standard proctor density. The compacted moisture content of the clays during placement shall be between optimum and four (4) percentage points above optimum.
 - C. Compaction shall be accomplished by placing the fill in six (6) to eight (8) inch thick lifts and compacting each lift to at least the minimum specified dry density. It is imperative that the fill particle sizes be less than six (6) inches in diameter. If larger clods are encountered during grading, these clods must be broken down or removed prior to final placement of the fill.
 - D. In order for the fill materials to perform as intended, the fill material must be placed in a manner which produces a good uniform fill that is compacted within the density and moisture ranges outlined above. Field density tests shall be performed to confirm this performance as construction progresses. For the proposed parking and driveway areas, testing at a frequency of no less than one (1) test per each lift per each 5,000 square feet shall be provided.
- 17. All underground work shall be completed prior to subgrade preparation and placement of paving.
- 18. All fill shall be compacted to 95% STD proctor density per City of Rockwall standards.

PAVING NOTES:

- 1. All dimensions are to the face of curb unless shown otherwise.
- 2. All proposed curb radii are 2.0 feet unless shown otherwise.
- 3. The Contractor shall remove and replace any concrete pavement within five (5) days of saw cutting the existing pavement.
- 4. The use of fly ash is not allowed in the concrete mix design.
- 5. All subgrade shall be tested for sulfates prior to the placement of concrete pavement. If sulfates are found, any treatments shall be in accordance with the recommendations of the geotechnical engineer.
- 6. Concrete pavement shall have a minimum compressive strength of 3,600 psi at 28 days. Fire lane paving shall be a minimum 6 inches of 3,600 psi concrete. (6 sack minimum for machine placed and 6.5 sack minimum for hand placed.)
- 7. It is the Contractor's responsibility to ensure compliance with all handicapped accessibility requirements, including signage, textures, colorings, markings and slopes of ADA accessible routes and parking spaces.
- 8. All signs, pavement markings and other traffic control devices shall conform to the Texas Manual on Uniform Traffic Control Devices.
- 9. The contractor shall submit a pavement jointing plan to the Engineer for approval prior to the placement of concrete paving.
- 10. Saw joints shall be made as soon as the new concrete can support the weight of the machine and operator without tracking.

EROSION CONTROL NOTES:

- 1. Erosion control design and specifications are included in these drawings in accordance with the minimum requirements of the City of Rockwall. Responsibility for compliance with State and Federal Best Management Practices (BMPs), the implementation of erosion control BMP measures and/or the filing of permits or notices shall solely rest with the Contractor(s) and Owner(s). The Texas Commission on Environmental Quality (TCEQ) requires permits for both small and large construction sites under the authority of the Texas Pollution Discharge Elimination System (TPDES) General Permit. General Permit requirements will require the developer/owner and responsible Contractor(s) to complete the following:
 - <u>Small Construction Sites</u> will disturb (alone or as part of a larger development) between 1 acre and 5 acres of
 - A. Must develop and implement a Storm Water
 - Pollution Prevention Plan (SWPPP) B. Must post copy of the TCEQ Construction Site
 - Notice at the project site. C. Must submit a copy of the Construction Site Notice to the City of Rockwall.
 - <u>Large Construction Sites</u> will disturb (alone or as part of a larger development) 5 acres or more of land
 - A. Must develop and implement a SWPPP B. Must submit Notice of Intent (NOI) with application fee to TCEQ at least 2 days prior to commencing
 - construction activities. C. Must post copy of the NOI at the project site. D. Must submit a copy of the NOI to the City of
- Homeyer Engineering, Inc. assumes no responsibility or liability for failure to do so by the Owner, Developer or Contractor.
- 2. The Contractor shall obtain a TPDES General Permit in compliance with TCEQ and implement a SWPPP according to permit requirements and applicable laws.

Rockwall.

- 3. The Contractor shall preserve existing vegetation when possible and must stabilize any disturbed area where construction activity has temporarily or permanently ceased. The stabilization must take place within 14 days of the end of activities unless construction will resume within 21 days.
- 4. All of the erosion control devices shown on the erosion control plan for the project shall be installed prior to the start of land disturbing activities.
- 5. If the erosion control plan as approved cannot control erosion and off-site sedimentation from the project, then the erosion control plan will be required to be revised and/or additional erosion control devices will be required on-site.
- 6. The Contractor shall use whatever measures are required to prevent silt and construction debris from leaving the site. Contractor shall comply with all Federal, State and Local erosion, conservation and siltation regulations. Contractor shall remove all temporary erosion control devices upon completion of permanent drainage facilities and the establishment of vegetation sufficient to prevent erosion. Any damage to adjacent properties; downstream channels, ponds or lakes; or wildlife shall be corrected by the Contractor at his expense.
- 7. The Contractor shall take all available precautions to control dust at no additional cost to owner.

FIRE LANE NOTES:

1. The fire lane shall be striped on a paved surface and be clearly marked on the pavement with a "red" painted line at least six (6) inches wide. "NO PARKING" and "FIRE LANE" in not less than four (4) inch letters in "white" paint shall be placed every other twenty five (25) feet on the stripe. Where the fire lane is adjacent to a curb, the entire curb shall be painted. All paint referred to shall be a traffic marking paint.

WATER AND SEWER NOTES:

- 1. All water pipe less than 12 inches in diameter shall be C900 CL 200 PVC unless shown otherwise.
- 2. All sewer pipe less than 12 inches in diameter and less than 10 feet in depth shall be SDR-35 PVC. When the depth exceeds 10 feet, the pipe material shall be SDR-26 PVC.
- 3. All water line appurtenances (valves, fire hydrants, tees, etc.) shall utilize mechanically restrained Megalug joints and concrete thrust blocking.
- 4. The contractor shall adjust any valve covers, manholes, etc. to proposed grades. Refer to grading plans, paving plans and landscaping plans for final grades for determining manhole rim
- 5. Water mains shall have a minimum cover of 48 inches below the proposed finished grade.
- 6. All public pipe, structures and fittings shall be inspected by the City inspector prior to the trench being backfilled.
- 7. Water jetting is not allowed.
- 8. All embedment and backfill shall be wetted to approximate optimum moisture and compacted in 8 inch lifts to 95% Standard Proctor Density or as directed by the Geotechnical Engineer. Density tests shall be obtained for each lift and for each 150 lineal feet of trench or increment thereof or as directed by the Geotechnical Engineer.
- 9. The location of all existing utilities indicated on the plans are taken from existing records. The exact location and elevation of all public utilities shall be determined by the Contractor. It shall be the responsibility of the Contractor to determine whether additional facilities, other than those shown, may be present.
- 10. When installing water lines at sanitary sewer crossings, no joint of water pipe shall be within 9 feet of the centerline of the sanitary sewer pipe.
- 11. A minimum clearance of 2 feet shall be provided between water lines and storm drainage inlets.
- 12. All road bores shall be made using dry bore equipment. No wet bores will be allowed.
- 13. Fire hydrants shall be located a minimum of 3 feet and a maximum of 5 feet behind the back of curb. If the fire hydrant is located within or adjacent to a public right-of-way, the Contractor shall place a blue reflector in the center of the lane adjacent to the fire hydrant. Fire hydrants shall have a 5 foot radial clearance to all obstructions.
- 14. Fire hydrants shall be painted in accordance with City of Rockwall Standards.
- 15. Proposed water lines shall be tested and disinfected in accordance with AWWA C601 prior to acceptance.
- 16. Proposed sewer lines shall be subjected to an air test and/or leakage test prior to acceptance.
- 17. The Contractor shall provide a TV inspection for all public sewer mains at Contractor's expense.
- 18. All excavation is unclassified and shall include all materials encountered.

STORM DRAINAGE NOTES:

- 1. All storm drainage pipe shall be Class III RCP, C-76, unless shown otherwise.
- 2. The Contractor shall use Gifford—Hill "B—2" (Radius Pipe) or equal for all horizontal or vertical curves with a radius greater than 100 feet. Pre-fabricated bends shall be used if the radius is less than 100 feet.
- 3. Use pre-fabricated Wyes at all pipe intersections and concrete collars at pipe size changes if a junction device (manhole, junction box, inlet, etc.) is not used.
- 4. Open ends of storm drainage pipes shall be adequately protected at the end of each day by the contractor.
- 5. Water jetting is not allowed.
- 6. All embedment and backfill shall be wetted to approximate optimum moisture and compacted in 8 inch lifts to 95% Standard Proctor Density or as directed by the Geotechnical Engineer. Density tests shall be obtained for each lift and for each 150 lineal feet of trench or increment thereof or as directed by the Geotechnical Engineer.
- 7. All excavation is unclassified and shall include all materials encountered.

RECORD DRAWING

To the best of our knowledge, Homeyer Engineering, Inc., hereby states that this plan is a Record Drawing. The information provided is based on surveying conducted at the site and information provided by the contractor.

<u>Steven R. Homeyer</u> Steven R. Homeyer, P.E. #86942

Date:<u>07-01-2008</u>

STEVEN R. HOMEYER 86942 THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY STEVEN R. HOMEYER, P.E. 86942

ON JULY 1, 2008.

DRAWN BY: BSZ

DATE: 10/15/07

HEI #: 07-168



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