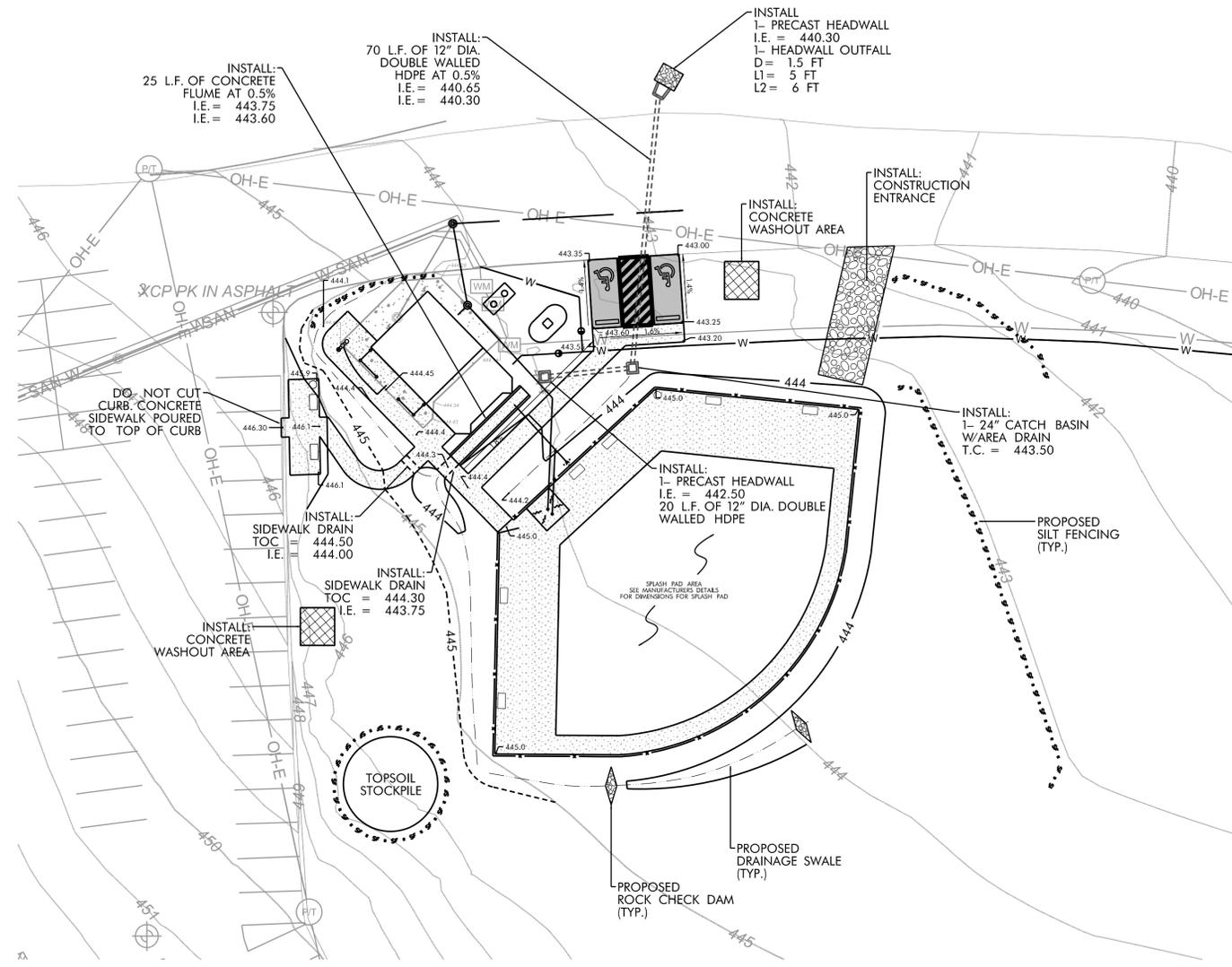


**GRADING, DRAINAGE, AND EROSION CONTROL NOTES:**

- CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ONSITE OR IN THE RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY TN ONE CALL 72 HOURS PRIOR TO EXCAVATION.
- PROPOSED CONTOURS ARE TO FINISHED GRADE.
- NO CUT OR FILL SLOPES SHALL BE CONSTRUCTED STEEPER THAN 2H:1V UNLESS SPECIFICALLY NOTED ON PLANS.
- DITCH SIDE SLOPES EXCEEDING 4:1 SHALL BE SODDED OR HAVE EROSION CONTROL BLANKETS PLACED IMMEDIATELY AFTER FINAL GRADE HAS BEEN ESTABLISHED. ALL DITCH BOTTOMS SHALL BE SODDED OR HAVE EROSION CONTROL BLANKETS PLACED AFTER FINAL GRADING.
- THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM ALL PROPOSED STRUCTURES. ANY SURFACE WATER ACCUMULATION IN THE BUILDING AND PAVEMENT AREAS SHALL BE DRAINED IMMEDIATELY TO AVOID SATURATION OF THE SUBGRADE SOILS.
- EXPOSE AS SMALL AN AREA OF SOIL FOR AS SHORT A TIME AS POSSIBLE.
- KEEP DUST WITHIN ACCEPTABLE LIMITS BY SPRINKLING OR OTHER ACCEPTABLE MEANS.
- USE TEMPORARY VEGETATION AND/OR MULCH TO PROTECT BARE AREAS FROM EROSION DURING CONSTRUCTION.
- ALL EXCAVATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OSHA GUIDELINES AS MANDATED IN THE CURRENT FEDERAL, STATE AND LOCAL REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE IN PROVIDING SAFE WORKING CONDITIONS IN CONNECTION WITH ANY EXCAVATION WORK.
- ENGINEERED FILL SHALL BE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY IN BUILDING PAD AREAS (PROPOSED AND FUTURE EXPANSION) AND TO 95% IN PARKING AND DRIVE AREAS. VEGETATED AREAS SHOULD BE COMPACTED TO A MINIMUM OF 92% OF STANDARD PROCTOR DENSITY.
- ALL CUT/FILL AREAS TO HAVE A MINIMUM OF 6" DEPTH OF TOPSOIL COVER. AREAS DRESSED WITH TOPSOIL WILL RECEIVE: 12 POUNDS PER 1,000 SQUARE FEET OF 4-12-12 FERTILIZER, 5 POUNDS OR MORE OF KENTUCKY 31 FESCUE SEED PER 1,000 SQUARE FEET AND A STRAW MULCH OF 70%-80% COVERAGE. (APPROXIMATELY 125 POUNDS PER 1,000 SQUARE FEET).
- THE CONTRACTOR SHALL VERIFY POSITIVE FLOW FOR ALL STORM SEWER SYSTEMS. DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER IMMEDIATELY.
- ALL SPOT ELEVATIONS SHOWN ARE FOR FINISHED GRADE.

**SEED AND SOD NOTES**

- ALL DISTURBED AREAS INCLUDING WASTE AREAS TO BE SEEDED OR SODDED (IF NOT NOTED TO BE RIP-RAPPED OR HARD SURFACED). THE AREA NOTED ON THE PLAN TO BE SEEDED SHALL BE SPREAD WITH 4" MINIMUM OF TOPSOIL. ALL AREAS TO BE DISKED, LEVELED, AND HAND RAKED. THE TOPSOIL LAYER SHALL BRING ALL TURF AREAS TO FINISHED GRADE. SURFACED AREA SHALL BE ROLLED TO REMOVE LUMPS. FOREIGN MATERIALS SUCH AS ROCKS, LIMBS, STICKS, ETC. TO BE COLLECTED AND REMOVED DURING CULTIVATION AND RAKING OPERATIONS.
- INSTALLATION OF SEED SHALL BE BETWEEN MARCH 1 TO JUNE 15 OR SEPTEMBER 1 TO OCTOBER 15. IF SEEDING IS DONE IN BETWEEN OCTOBER 15 AND MARCH 1, A SEED BLEND WILL BE USED CONSISTING OF 20% ANNUAL RYE.
- GRASS SEED SHALL BE A TURF TYPE SEED. FERTILIZER SHALL BE 10-10-10 TYPE 1 GRADE A. USE APPROXIMATELY 8 LBS. OF GRASS SEED, 10 LBS FERTILIZER FOR EACH 1000 SQ. FT OF GROUND AREA TO BE SEEDED. COVER ALL SEEDED AREAS WITH 3 BALES OF WHEAT STRAW FOR EACH 1,000 SQ. FT. WATER DAILY FOR 15 DAYS OR AS REQUIRED BY THE WEATHER CONDITIONS. AFTER SEED HAS GERMINATED, ALL THIN SPOTS SHALL BE RE-SEEDED.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING, AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. A MINIMUM OF 90% COVERAGE OF SOUND, HEALTHY GRASS SHALL BE REQUIRED FOR ACCEPTANCE.
- EMBANKMENTS/SLOPES GRATER THAN 3:1 SHALL BE EITHER SEEDED AND COVERED WITH AN EROSION CONTROL MAT (JUTE MESH ENKAMAT) OR INSTALLED WITH SOD FOR PROPER STABILIZATION. SOD TO BE STAKED WITH EITHER WOOD STAKES OR U-SHAPED METAL PINS FLUSH WITH GRADE.
- SOD SHALL BE REGIONALLY GROWN AND OF A SPECIES THAT WILL THRIVE IN THE PROJECT AREA.
- HYDROSEED ALL NEW LAWN AREAS AS SPECIFIED UNLESS PLANS CALL FOR SOD.
- MIX SEED, FERTILIZER, AND PULVERIZED MULCH WITH WATER USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION.
- APPLY SLURRY UNIFORMLY TO ALL AREAS BEING SEEDED. RATE OF APPLICATION AS REQUIRED TO OBTAIN SPECIFIED SEED SOWING RATE.
- THE SOD SHALL BE RELATIVELY FREE OF DISEASES AND WEEDS. STONES LARGER THAN 1" IN ANY DIMENSIONS, PLANT ROOTS AND OTHER MATERIAL DETERIMENTAL TO A HEALTHY STAND OF TURF SHOULD BE REMOVED. DELIVERED SOD THAT HAS BECOME DRY, MOLDY OR YELLOW FROM HEATING OR HAS IRREGULARLY SHAPED PIECES THAT ARE TORN OR HAVE UNEVEN ENDS SHALL BE REJECTED.
- THE SOD BED WILL BE LOOSENEED TO A DEPTH OF 3" TO A SMOOTH, EVEN SURFACE AND SHALL BE GRADED TO SUCH AN ELEVATION SO THE SOD, WHEN IN PLACE, SHALL BE FLUSHED WITH ANY ADJACENT SEEDED TURFED AREA, PAVEMENT, CURB OR OTHER STRUCTURES EXCEPT WHEN OTHERWISE NOTED.
- LAY SOD WITHIN 24 HOURS OF STRIPPING. DO NOT LAY DORMANT SOD OR IF GROUND IS FROZEN. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. DO NOT OVERLAP.
- WATER SOD WITH FINE SPRAY IMMEDIATELY AFTER PLANTING. DURING FIRST WEEK, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO DEPTH OF 4".
- PRIOR TO PLACING THE SOD, FERTILIZER 10-10-10 TYPE 1 GRADE A SHALL BE APPLIED UNIFORMLY. SOD SECTIONS SHALL BE HARROWED, RAKED OR OTHERWISE INCORPORATED INTO THE SOIL. THE SOIL BED, WHEN DRY, SHALL BE MOISTENED TO THE LOOSENEED DEPTH.
- SOD SHALL BE WETTED THOROUGHLY, ROLLED AND TAMPED SUFFICIENTLY TO INCORPORATE THE ROOTS INTO THE SOD BED AND TO ENSURE TIGHT JOINTS BETWEEN THE SECTIONS OR STRIPS.
- ALL SODDED AREAS SHALL BE MAINTAINED, WATERED, AND REPAIRED AS NECESSARY BY THE LANDSCAPE CONTRACTOR UNTIL FINAL ACCEPTANCE OF THE PROJECT.
- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL SEEDED OR SODDED AREAS FOR A PERIOD OF ONE YEAR FROM THE DATE OF COMPLETION. LANDSCAPE CONTRACTOR IS NOT RESPONSIBLE FOR ACTS OF NATURE THAT MAY CAUSE EROSION, NEGLIGENCE BY THE OWNER OR DAMAGED BY ANIMALS OR MACHINES.



**DRAINAGE CALCULATIONS:**

RATIONAL METHOD: Q=CIA  
 TIME OF CONCENTRATION, T<sub>c</sub> = 5 MIN

INTENSITIES:  
 5 YEAR: 6.12 IN/HR  
 10 YEAR: 6.76 IN/HR  
 25 YEAR: 7.55 IN/HR  
 50 YEAR: 8.14 IN/HR  
 100 YEAR: 8.70 IN/HR

PRE DEVELOPMENT  
 RUNOFF COEFFICIENT - C = 0.44  
 TOTAL AREA = 4.23  
 5 YEAR: Q = 11.4 CFS  
 10 YEAR: Q = 12.6 CFS  
 25 YEAR: Q = 14.1 CFS  
 50 YEAR: Q = 15.2 CFS  
 100 YEAR: Q = 16.2 CFS

POST DEVELOPMENT  
 RUNOFF COEFFICIENT - C = 0.45  
 TOTAL AREA = 4.1  
 5 YEAR: Q = 11.3 CFS  
 10 YEAR: Q = 12.4 CFS  
 25 YEAR: Q = 13.9 CFS  
 50 YEAR: Q = 15.0 CFS  
 100 YEAR: Q = 16.0 CFS

NOTE: DUE TO THE PERVIOUS SURFACE OF THE SPLASH PAD, THE POST DEVELOPMENT RUNOFF FROM THE SITE IS LOWER THAN THE PRE-EXISTING

**FFE AND ADA NOTES:**

- EXISTING FLOOR IN STRUCTURE SHALL BE REMOVED.
- CONTRACTOR IS TO MATCH EXISTING FINISHED FLOOR ELEVATION.
- CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE ALL SIDEWALKS ARE ADA COMPLIANT. NO RUNNING SLOPE OVER 5% (1:20) AND NO CROSS SLOPE OVER 2% (1:50).

**EROSION CONTROL NOTES:**

- ALL MEASURES INSTALLED FOR SEDIMENT CONTROL SHALL BE CHECKED AT THE BEGINNING AND END OF EACH DAY WHEN CONSTRUCTION IS OCCURRING TO ASCERTAIN THAT THE MEASURES ARE IN PLACE AND FUNCTIONING PROPERLY. ANY DAMAGE OBSERVED WILL BE REPAIRED BY THE END OF THAT WORKING DAY. MEASURES SHALL BE MAINTAINED UNTIL THE ARCHITECT/ENGINEER DETERMINES THAT THEY ARE NO LONGER NEEDED.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE STANDARDS OF THE LOCAL AUTHORITY AS REQUIRED BY STATE AND FEDERAL LAWS.
- A COPY OF THE APPROVED EPSC PLANS SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES. THIS COPY SHALL BE PRESENTED TO THE LOCAL AUTHORITY'S REPRESENTATIVES UPON REQUEST.
- PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN ANY AREA NOT ON THE APPROVED EPSC PLAN, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EPSC PLAN TO THE LOCAL AUTHORITY AND/OR STATE FOR APPROVAL.
- ALL EPSC MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING AND GRADING. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE LOCAL AUTHORITY. DURING DEWATERING OPERATIONS WATER MUST BE PUMPED THROUGH AN APPROVED FILTERING DEVICE. THE CONTRACTOR SHALL MAINTAIN A RECORD OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES AT THE PROJECT SITE.
- ALL AREAS DISTURBED SHALL BE STABILIZED ACCORDINGLY. WHEN THE SITE IS BROUGHT TO FINAL GRADE IT MUST BE STABILIZED WITHIN 14 DAYS. AREAS OF DISTURBED SOILS MUST BE STABILIZED WITHIN 14 DAYS OF NO ACTIVITY AND WITHIN 7 DAYS IF SLOPE IS 35% OR GREATER.
- EROSION CONTROL BARRIERS SHALL BE INSTALLED DOWNHILL OF ALL TO-BE GRADED AREAS AND SHALL BE INSPECTED OR REPLACED AS NECESSARY FOR THE DURATION OF THE PROJECT TO ENSURE SEDIMENT AND DEBRIS DO NOT FILL DITCHES AND BLOCK DRAINAGE CULVERTS.
- ROADS SHALL BE KEPT CLEAR OF DEBRIS DURING CONSTRUCTION ACTIVITIES.
- INSTALL CONSTRUCTION ENTRANCE/EXIT.
- INSTALL SILT FENCE AND OTHER TEMPORARY CONTROLS AROUND SINKHOLES IF ANY ON SITE.
- ALL EROSION CONTROL MEASURES ARE DESIGNED FOR THE 2 YEAR 24 STORM EVENT

**SITE GRADING & EROSION CONTROL PLAN**



**BPE**  
 BRYAN PRICE ENGINEERING  
 865 COKER FORD ROAD  
 PORTLAND, TENNESSEE 37148  
 PHONE: 615-481-3176 EMAIL: BRYAN.PRICE@REACAN.COM

REVISIONS	DATE
REVISED AFTER BID	01-13-2019
OUTFALL LOCATION	02-20-2019
TDEC REV 2	03-05-2019
OWNER COMMENTS	05-27-2019

DATE:	JANUARY 2019
DRAWN BY:	PRICE
CHECKED BY:	PRICE
APPROVED BY:	PRICE

**SITE GRADING & EROSION CONTROL PLAN**  
 PEAY PARK SPLASH PAD  
 CITY OF GOODLETTSVILLE  
 DAVIDSON COUNTY, TENNESSEE

SHEET NO. **C4.0**

JOB NO. 0301-02

STATES  
 SPICES