

LEXINGTON, KY  
VICINITY MAP  
(N.T.S.)

# DEVELOPMENT PLAN FOR HOUCHENS INDUSTRIES 2656 ABIGAIL WAY LEXINGTON, KY 40511

DECEMBER 4, 2017



**DEVELOPER/APPLICANT/OWNER:**

JR. FOODS, INC.  
700 CHURCH ST.  
BOWLING GREEN, KY 42101  
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(270) 780-2973

**CIVIL ENGINEER:**

ARNOLD CONSULTING  
ENGINEERING SERVICES, INC.  
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(270) 780-9445



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**UTILITY COMPANIES/ GOVERNMENT OFFICIALS**

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**ARNOLD CONSULTING  
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**PHONE (270) 780-9445**

**GENERAL NOTES:**

- 1. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL PERTINENT AUTHORITIES.
- 2. NO GRADING, STRIPPING, EXCAVATION, FILLING OR OTHER DISTURBANCE OF THE NATURAL GROUND COVER SHALL TAKE PLACE UNTIL PROPOSED SOIL EROSION CONTROL PLAN HAS BEEN APPROVED AND IN PLACE.
- 3. ALL DIMENSIONS INVOLVING CURBS ARE SHOWN TO FACE OF CURB, UNLESS NOTED OTHERWISE. ALL CURB RADII ARE 5'0" UNLESS NOTED OTHERWISE.
- 4. IN THE CASE OF CONFLICT BETWEEN CIVIL DRAWINGS AND ANY OTHER DRAWING AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR CLARIFICATION.
- 5. THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND THE REQUIREMENTS OF LOCAL UTILITY COMPANIES.
- 6. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS AND THE TRAFFIC CONTROL DEVICES DURING CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AND SAFETY REQUIREMENTS.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ALL VEHICLE TRAFFIC IN AND AROUND THE CONSTRUCTION AREA.
- 8. ALL UNPAVED AREAS TO RECEIVE A MINIMUM OF 4" TOPSOIL, SEED (AS OUTLINED IN THE LANDSCAPE PLANS), MULCHED AND WATERED AS NECESSARY TO PROVIDE SUBSTANTIAL GRASS COVER.
- 9. ALL PAVEMENT MARKINGS INCLUDING STRIPES, DIRECTIONAL ARROWS, ETC., SHALL BE YELLOW PAINT (TWO COATS). HANDICAP SYMBOL, COLORS SHALL BE PER LOCAL CODE. APPROVED EXTERIOR PAINTS ARE AS: PRATT AND LAMBERT TRAFFIC PAINT SHERWIN-WILLIAMS PRO-MAR TRAFFIC MARKING-PAINT B29 SERIES GILDEN ROMARK TRAFFIC PAINT PPG ZONE AND TRAFFIC MARKING PAINT

**GRADING AND DRAINAGE NOTES:**

- 1. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY LOCATE AGENCY 48 HOURS PRIOR TO EXCAVATION.
- 2. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- 3. NO CUT OR FILL SLOPES SHALL BE CONSTRUCTED STEEPER THAN 2H:1V UNLESS SPECIFICALLY NOTED ON THE PLANS.
- 4. SITE GRADES AROUND THE BUILDING AND PAVEMENT AREAS SHALL BE GRADED DURING CONSTRUCTION TO PREVENT PONDING. ANY SURFACE WATER ACCUMULATION IN THE BUILDING AND PAVEMENT AREAS SHALL BE DRAINED IMMEDIATELY TO AVOID SATURATION OF THE SUBGRADE SOILS.
- 5. FILL, INCLUDING FINAL TOPSOIL SHALL BE PLACED A MINIMUM OF 3 INCHES BELOW FFE AT BUILDING SLABS UNLESS OTHERWISE INDICATED BY ARCHITECTURAL WALL SECTION DETAILS.
- 6. GRADES WITHIN 10' OF BUILDING SHALL HAVE A MINIMUM SLOPE OF 2% AWAY FROM THE BUILDING.
- 7. ALL EXCAVATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS AS MANDATED IN CURRENT FEDERAL, STATE AND LOCAL REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE IN PROVIDING SAFE WORKING CONDITIONS IN CONNECTION WITH ANY EXCAVATION WORK.
- 8. ENGINEERED FILL SHALL BE COMPACTED TO 98% OF STANDARD PROCTOR DENSITY IN BUILDING PAD AREAS (PROPOSED AND FUTURE EXPANSION) AND TO 96% IN PARKING AND DRIVE AREAS. VEGETATED AREAS SHOULD BE COMPACTED TO A MINIMUM OF 92% OF STANDARD PROCTOR DENSITY.
- 9. STONE BASES SHOULD BE COMPACTED TO A DENSITY SATISFACTORY TO ENGINEER, TYPICALLY 84% OF SOLID VOLUME/ BY TEST STRIP METHODS.
- 10. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING, TREES, ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF SITE.
- 11. GRADE LINES SHOWN ARE FINISHED GRADE. CONTRACTOR SHOULD SEE DETAIL SHEET FOR APPROPRIATE PAVEMENT TYPE TO DETERMINE ELEVATIONS FOR PAVING AREAS.
- 12. CONTRACTOR IS ADVISED THAT FINAL GRADING AND CURB PLACEMENT SHALL BE COMPLETED TO ACCOMMODATE THE DAY DRAINING: A) NO WATER WILL POND AT POINTS WHERE LANDSCAPE ISLANDS LEAD INTO PARKING FIELDS. B) SPACES DESIGNATED FOR HANDICAP PARKING AND ACCESS AISLE SHALL HAVE A FINAL SLOPE AFTER PAVING IS COMPLETED OF NOT MORE THAN 2.0%. EITHER OF THESE ITEMS ARE NOT CONSTRUCTED AS OUTLINED ABOVE, REWORK WILL BE PROVIDED BY THE CONTRACTOR TO CORRECT DEFICIENCIES AT THE CONTRACTORS EXPENSE.
- 13. THE CONTRACTOR SHALL VERIFY POSITIVE FLOW FOR ALL STORM SEWER SYSTEMS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- 14. ALL SPOT ELEVATIONS SHOWN ARE FINISHED GRADE. SPOT ELEVATIONS SHOWN ALONG GUTTER LINE ARE FLOW ELEVATIONS FOR FACE OF CURB.

**GENERAL EROSION NOTES:**

- 1. 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.
- 2. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE STANDARDS OF THE LOCAL AUTHORITY AND AS REQUIRED BY STATE AND FEDERAL LAWS.
- 3. A COPY OF THE APPROVED EROSION PLANS SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES. THIS COPY SHALL BE PRESENTED TO THE LOCAL AUTHORITY'S REPRESENTATIVES UPON REQUEST.
- 4. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN ANY AREA NOT ON THE APPROVED EROSION PLAN, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION PLAN TO THE LOCAL AUTHORITY FOR APPROVAL.
- 5. ALL EROSION 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 LOCAL AUTHORITY MAY SUSPEND DEWATERING OPERATIONS IF POLLUTION IS OBSERVED.
- 6. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES AT LEAST ONCE A WEEK AND AT LEAST ONCE A DAY DURING RAINFALL EVENTS. THE CONTRACTOR SHALL PERFORM ANY REPAIRS OR MAINTENANCE IMMEDIATELY IN ORDER TO ENSURE EFFECTIVE EROSION AND SEDIMENT CONTROL. THE CONTRACTOR SHALL MAINTAIN A RECORD OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES AT THE PROJECT SITE. THIS RECORD SHALL BE MADE AVAILABLE UPON REQUEST.
- 7. ALL AREAS DISTURBED SHALL BE STABILIZED ACCORDINGLY. WHEN THE SITE IS BROUGHT TO FINAL GRADE IT MUST BE STABILIZED WITHIN 14 DAYS. DISTURBED AREAS NOT AT FINAL GRADE MUST BE STABILIZED WITHIN 21 DAYS.

**SEED AND SOD NOTES:**

- 1. 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 w/ 4" MINIMUM OF TOP SOIL. ALL AREAS TO BE DISKED, LEVELED, AND HAND RAKED. THE TOPSOIL LAYER SHALL BRING ALL TURF AREAS TO FINISH GRADE SURFACE 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.
- 2. 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 TO MARCH 1. A SEED BLEND WILL BE USED CONSISTING OF 20% ANNUAL RYE.
- 3. GRASS SEED SHALL BE A TYPE WHICH WILL THRIVE IN THIS PROJECT AREA. SUBMIT PROPOSED SEED MIXTURE TO OWNER FOR APPROVAL. FERTILIZER SHALL BE 10-10-10 TYPE I GRADE A. USE APPROXIMATELY 5 LBS. OF GRASS SEED, AND 10 LBS OF FERTILIZER FOR EACH 1000 SQ. FT. OF GROUND AREA TO BE SEEDED. COVER ALL SEEDED AREAS WITH 3 LBS OF WHEAT STRAW FOR EACH 1000 S.F. WATER DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS. AFTER SEED HAS GERMINATED, ALL THIN SPOTS SHALL BE RE-SEED.
- 4. 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.
- 5. EMBANKMENTS/ SLOPES GREATER THAN 3:1 SHALL EITHER BE SEEDED AND COVERED WITH AN EROSION CONTROL MAT (LUTE 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.
- 6. SOD SHALL BE REGIONALLY GROWN AND OF A SPECIES THAT WILL THRIVE IN THE PROJECT AREA.
- 7. HYDROSEED ALL NEW LAWN AREAS AS SPECIFIED UNLESS PLANS CALL FOR SOD.
- 8. MIX SEED, FERTILIZER AND PULVERIZED MULCH WITH WATER, USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION.
- 9. APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDED. RATE OF APPLICATION AS REQUIRED TO OBTAIN SPECIFIED SEED SOWING RATE.
- 10. THE SOD SHALL BE RELATIVELY FREE OF DISEASES AND WEEDS. STONES LARGER THAN 1-1/2" IN ANY DIMENSION, PLANT ROOTS AND OTHER MATERIAL DETRIMENTAL TO A HEALTHY STAND OF TURF TO 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.
- 11. THE SOD BED WILL BE LOOSENEED TO A DEPTH OF 3" TO A SMOOTH EVEN SURFACE AND SHALL BE GRADED TO SUCH ELEVATION SO THE SOD, WHEN IN PLACE, SHALL BE FLUSH WITH ANY ADJACENT SEEDED TURFED AREA. PONDING, CURBS OR OTHER STRUCTURES EXCEPT WHEN OTHERWISE DIRECTED.
- 12. 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.
- 13. WATER SOD WITH FINE SPRAY IMMEDIATELY AFTER PLANTING. DURING FIRST WEEK, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST TO DEPTH OF 4 IN.
- 14. PRIOR TO PLACING THE SOD, FERTILIZER 10-10-10 TYPE I 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.
- 15. 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.
- 16. ALL SODDED AREAS SHALL BE MAINTAINED (WATERED) AND REPAIRED AS NECESSARY BY THE LANDSCAPE CONTRACTOR UNTIL FINAL ACCEPTANCE OF THE PROJECT.
- 17. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL SEEDER 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, NEGLECT BY THE OWNER OR DAMAGED BY ANIMALS OR MACHINES.

**GENERAL UTILITY NOTES:**

- 1. THE CONTRACTOR IS ADVISED THAT ALL EXISTING UTILITIES SHOWN WERE FIELD SURVEYED BASED ON LOCATIONS PROVIDED BY EACH UTILITY COMPANY. OTHER UTILITIES MAY EXIST THAT ARE UNMAPPED. THE CONTRACTOR IS ADVISED TO FIELD VERIFY ALL UNDERGROUND UTILITIES BY CONTACTING THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO EXCAVATION.
- 2. ALL UTILITIES TO BE CONSTRUCTED TO 5' OUTSIDE OF PROPOSED BUILDING.
- 3. ALL CONDUIT BENDS SHALL BE WITH RIGID METAL.
- 4. MINIMUM DEPTH OF TRENCHING IS 42"
- 5. FULL STRING WITH A MINIMUM OF 150 POUND TEST STRENGTH SHALL BE INSTALLED IN EACH CONDUIT.
- 6. DEPTH OF ELECTRICAL, CONDUITS, AND TELEPHONE CONDUITS, SHALL BE ADJUSTED AS REQUIRED TO ALLOW FOR SPECIFIED PLACEMENT OF SANITARY AND STORM SEWER.
- 7. BACK FILL OF ALL TRENCHES BENEATH STRUCTURES AND OR PAVEMENT SHALL BE CRUSHED STONE OR SIMILAR MATERIAL AS APPROVED BY ENGINEER.
- 8. BEFORE YOU DIG: CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY LOCATE AGENCY 48 HOURS PRIOR TO EXCAVATION, TO LOCATE & FLAG ALL UNDERGROUND UTILITIES IN OR NEAR THE CONSTRUCTION AREA.
- 9. DAMAGE CAUSED BY CONTRACTOR TO ANY UTILITIES OR OTHER IMPROVEMENTS SHALL BE REPAIRED OR REPLACED AT CONTRACTORS EXPENSE.
- 10. CONTRACTOR SHALL VERIFY LOCATIONS THAT UTILITIES ENTER THE BUILDING FROM THE ARCHITECTURAL PLANS PRIOR TO INSTALLING UTILITY SERVICE LINES.

**SEWER NOTES:**

- 1. PVC PIPE MATERIAL AND JOINTS SHALL CONFORM TO ASTM D-3034, LATEST REVISION.
- 2. FLEXIBLE THERMOPLASTIC SEWER PIPE INSTALLATION SHALL CONFORM TO ASTM D-2241, LATEST REVISION.
- 3. ALL SEWER LINES SHALL BE LAID 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN EXCEPT WHERE THE WATER MAIN CROSSES OVER THE SANITARY SEWER LINE.
- 4. ALL PIPELINE TRENCHING AND STRUCTURE EXCAVATION SHALL BE UNCLASSIFIED.
- 5. SANITARY SEWER PIPE SHALL HAVE A MINIMUM COVER OF THIRTY (36) INCHES.
- 6. ALL SEWERS SHALL BE SMOKE TESTED AND/OR LOW PRESSURE AIR TESTED. A DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACK FILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 85% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
- 7. SUBGRADE AND BACK FILL FOR SEWERS LOCATED IN FILL AREAS SHALL BE COMPACTED TO NOT LESS THAN 95% OF DENSITY DETERMINED FROM THE STANDARD PROCTOR TEST.
- 8. SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

**GENERAL WATER & SEWER NOTES:**

- 1. THE CONTRACTOR IS ADVISED THAT ALL EXISTING UTILITIES SHOWN WERE FIELD SURVEYED BASED ON LOCATIONS PROVIDED BY EACH UTILITY COMPANY. OTHER UTILITIES MAY EXIST THAT ARE UNMAPPED. THE CONTRACTOR IS ADVISED TO FIELD VERIFY ALL UNDERGROUND UTILITIES BY CONTACTING THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.
- 2. ALL UTILITIES TO BE CONSTRUCTED TO WITHIN 5' OF THE BUILDING.
- 3. BACK FILL OF ALL TRENCHES BENEATH STRUCTURES AND/OR PAVEMENT SHALL BE CRUSHED STONE OR SIMILAR MATERIAL AS APPROVED BY THE ENGINEER.
- 4. CONTRACTORS ARE ADVISED TO COORDINATE INSTALLATION OF ALL BURIED CONDUITS AND LINES SUCH THAT LINES WHICH CROSS ARE LAID BEGINNING WITH THE DEEPEST LINE FIRST.
- 5. DEPTH OF WATERLINE SHALL BE ADJUSTED AS REQUIRED TO ALLOW FOR SPECIFIED PLACEMENT OF SANITARY AND STORM SEWERS, BUT IN NO CASE LESS THAN 48" DEEP.
- 6. TAPPING AND INSPECTION FEES TO BE PAID BY CONTRACTOR, METER FEES TO BE PAID BY OWNER.
- 7. CONTRACTOR SHALL COORDINATE WATER AND SEWER SERVICES CONSTRUCTION WITH THE LOCAL UTILITY COMPANY. ALL WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL UTILITY COMPANY.
- 8. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- 9. CONTRACTOR SHALL OBTAIN APPROVAL FROM ALL GOVERNING AGENCIES HAVING JURISDICTION OF UTILITY SYSTEMS PRIOR TO INSTALLATION.
- 10. ALL GATE VALVES SHALL BE PROVIDED WITH VALVE BOX IN ACCORDANCE WITH WATER UTILITY STANDARDS. MAIN WATER VALVES ONLY TO BE OPERATED BY LOCAL UTILITY COMPANY PERSONNEL.
- 11. THURST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS AND SHALL BE CONSTRUCTED ACCORDING TO WATER DEPARTMENT STANDARDS.
- 12. ALL WATER AND SANITARY SEWER SERVICE LINES TO THE BUILDING(S) SHALL BE PROVIDED WITH A TEMPORARY PLUG (FOR OTHERS TO REMOVE AND EXTEND AS NECESSARY), COORDINATE ALL TESTING AND INSPECTION WITH THE LOCAL UTILITY COMPANY.
- 13. THE CONTRACTOR SHALL FLUSH AND TEST ALL NEW UTILITY LINES ACCORDING TO THE LOCAL UTILITY COMPANY STANDARDS.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS AND ELEVATIONS OF EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION. ANY CONFLICTS DISCOVERED AFTER CONSTRUCTION HAS BEGUN, SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
- 15. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES IS TEN FEET OUTSIDE DIAMETER TO OUTSIDE DIAMETER. THE MINIMUM VERTICAL SEPARATION IS EIGHTEEN INCHES.
- 16. BEFORE YOU DIG: CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY LOCATE AGENCY 48 HOURS PRIOR TO EXCAVATION, TO LOCATE AND FLAG ALL UNDERGROUND UTILITIES WITHIN THE PROPOSED RIGHT-OF-WAY.
- 17. CONTRACTOR SHALL VERIFY LOCATIONS THAT UTILITIES ENTER THE BUILDING FROM THE ARCHITECTURAL PLANS PRIOR TO INSTALLING UTILITY SERVICE LINES.

**UNDERGROUND PRIMARY ELECTRIC REQUIREMENTS:**

GENERAL:

- 1. TRANSFORMER PADS, VAULTS, SECONDARY CONDUCTOR, METER SOCKET, EXCAVATION, CONDUIT AND BACKFILL PROVIDED BY CONTRACTOR.
- 2. PADMOUNT TRANSFORMERS, JUNCTION ENCLOSURES, PRIMARY CONDUCTORS, AND INSTALLATION OF SAME BY LOCAL UTILITY COMPANY.
- 3. UNDERGROUND CONSTRUCTION BY CONTRACTOR IS SUBJECT TO INSPECTION BY LOCAL UTILITY COMPANY, AND MUST BE APPROVED BY LOCAL UTILITY COMPANY PRIOR TO THE INSTALLATION OF CONDUCTOR AND TRANSFORMERS. CONDUIT TO BE INSPECTED BEFORE BACKFILLING.
- 4. REFER TO LOCAL UTILITY COMPANY'S OPERATING POLICIES FOR ADDITIONAL RULES AND REGULATIONS.
- 5. PROJECT AREA SHALL BE AT LEAST ROUGH GRADE BEFORE ANY TRENCHING CAN BEGIN.
- 6. ANY CHANGES TO THESE OR ANY OTHER LOCAL UTILITY COMPANY SPECIFICATIONS RELATING TO SAME MUST BE DESIGNED OR APPROVED BY LOCAL UTILITY COMPANY.
- 7. BEFORE ANY EXCAVATION IS PERFORMED NEAR LOCAL UTILITY COMPANY'S EXISTING FACILITIES, A 48-HOUR NOTICE TO THE APPROPRIATE UTILITY LOCATE AGENCY MUST BE GIVEN SO THAT NECESSARY ACTION CAN BE TAKEN TO MINIMIZE DANGER TO LIFE AND/OR PROPERTY.

CONDUIT REQUIREMENTS:

- 1. MINIMUM SIZE OF PRIMARY CONDUIT TO BE 2-1/2" SCH 80 PVC AND MINIMUM DEPTH FOR THIS CONDUIT TO BE 42". TO TOP OF CONDUIT, MINIMUM SIZE OF SECONDARY CONDUIT TO BE 3" SCH 80 PVC AND MINIMUM DEPTH FOR THIS CONDUIT TO BE 42" TO TOP OF CONDUIT. MINIMUM SIZE OF CONDUIT FOR UNDERGROUND SERVICE, LATERAL, TO BE 2" SCH 80 PVC AND MINIMUM DEPTH FOR THIS CONDUIT TO BE 24" TO TOP OF CONDUIT.
- 2. ALL CONDUITS TO BE TURNED UP INTO TRANSFORMERS AND SECONDARY VAULTS AS SHOWN. SEE ATTACHED DETAILS.
- 3. ALL BENDS IN CONDUIT TO BE OF SUFFICIENT RADI TO PERMIT EASE IN PULLING WIRE (NO PLUMBERS BENDS WILL BE ACCEPTED). ALL 90° BENDS IN PRIMARY CONDUIT WILL HAVE A MINIMUM RADIUS OF 36". ALL 90° BENDS IN SECONDARY CONDUIT WILL HAVE A MINIMUM RADIUS OF 18".
- 4. ALL CONDUITS TO CONTAIN 150 LB. TEST (OR GREATER) NYLON STRING.
- 5. BACKFILL OVER CONDUIT TO CONTAIN NO LARGE ROCKS OR DEBRIS.
- 6. ALL CONDUITS BENEATH ROAD SURFACE WILL BE SCH 80, OR ENCASED IN A 4" CONCRETE ENVELOPE, AND WILL BE BACKFILLED WITH NO 8 CRUSHED STONE.
- 7. ALL CONDUITS WILL BE INSTALLED AS SPECIFIED AND LOCATED BENEATH ALL OTHER UTILITIES WHERE POSSIBLE. ALTERATIONS TO THIS SPECIFICATION WILL BE DESIGNED OR APPROVED BY LOCAL UTILITY COMPANY.
- 8. A "BURIED ELECTRIC LINES" WARNING TAPE (3" MINIMUM WIDTH) WILL BE INSTALLED 12" DIRECTLY OVER PRIMARY CONDUITS AND 12" BENEATH FINAL GRADE FOR SAME.
- 9. SECONDARY CONDUITS NOT FOLLOWING A STRAIGHT LINE BETWEEN TERMINATIONS WILL ALSO REQUIRE WARNING TAPE TO BE INSTALLED 12" BENEATH FINAL GRADE.
- 10. WARNING TAPE WILL BE FURNISHED BY LOCAL UTILITY COMPANY UPON REQUEST.
- 11. ENTIRE EXCAVATED AREA NEAR PAD TO BE BACKFILLED WITH NO 9 CRUSHED STONE.
- 12. WHEN LOCAL UTILITY COMPANY CONDUCTORS ARE TO BE PARALLEL TO WATER, SEWER AND GAS, THERE MUST BE A MINIMUM OF THREE FEET SEPARATION. WHEN LOCAL UTILITY COMPANY CONDUCTORS ARE TO BE PARALLEL TO CABLE TV OR TELEPHONE, THERE MUST BE A MINIMUM SEPARATION OF ONE FOOT. NO OTHER UTILITIES MAY BE DIRECTLY ABOVE THE POWER CABLES.
- 13. WHEN CROSSING UNDER OTHER BURIED UTILITY LINES, LOCAL UTILITY COMPANY REQUIRES A MINIMUM SEPARATION OF TWO FEET. WHEN A SEPARATION OF TWO FEET CAN NOT BE ACHIEVED, THE SEPARATION MAY BE REDUCED TO ONE FOOT WITH A FOUR INCH CONCRETE ENCASEMENT THE LENGTH OF FOUR FEET TO EACH SIDE OF THE BURIED LINE BEING CROSSED.

**GENERAL LANDSCAPE NOTES:**

LANDSCAPE NOTES:

- 1. PLANT MATERIALS SHALL CONFORM IN SIZE AND GRADE TO AMERICAN STANDARDS FOR NURSERY STOCK. PLANT MATERIALS SHALL BE OF STANDARD QUALITY TRUE TO NAME AND TYPE, AND FIRST CLASS REPRESENTATIVES OF THEIR SPECIES OR VARIETY. PLANTS SHALL BE CAREFULLY LABELED AND OF SIZES NOTED. RIGHT IS RESERVED TO REJECT PLANTS CONSIDERED AS UNSATISFACTORY. REJECTED PLANTS TO BE REMOVED FROM SITE AT CONTRACTORS EXPENSE. HEADING-BACK PLANTS TO MEET SIZES INDICATED IN PLANT SCHEDULE WILL NOT BE PERMITTED.
- 2. PLANTS & TREES
  - A. CONTRACTOR SHALL STAKE THE LOCATION OF EACH TREE AND SHRUB IN ACCORDANCE WITH THE LOCATIONS SHOWN ON THE DRAWINGS. STAKING AND LAYOUT WORK SHALL BE DONE SUFFICIENTLY IN ADVANCE OF PLANTING OPERATION TO PERMIT THE LANDSCAPE DESIGNER TO CHECK, REVISE IF DESIRED, AND APPROVED THE LOCATIONS BEFORE DIGGING OPERATIONS BEGIN.
  - B. EXCAVATE PLANTING BEDS AND POCKETS TO A DEPTH REQUIRED FOR PLANTINGS.
  - C. ANY ROCK OR OTHER UNDERGROUND OBSTRUCTION SHALL BE REMOVED TO DEPTH NECESSARY TO PERMIT PLANTING ACCORDING TO THESE SPECIFICATIONS.
  - D. IN GENERAL, CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTED AREAS AFTER PLANTING AND IN DRY WEATHER USE ENOUGH WATER TO THOROUGHLY SOAK ALL TREE PITS BEFORE PLANTING.
- 3. MULCHING
  - A. MULCH TOP OF ROOT BALL AND SAUCER WITHIN 48 HOURS TO A MINIMUM DEPTH OF 2" AND TO A DEPTH NOT TO EXCEED 3".
  - B. ALL SHADE AND FLOWERING TREES SHALL BE MULCHED WITH THREE (3) INCHES THICK (SETTLED) AND COVERING AN AREA TWELVE (12) INCHES GREATER THAN THE DIAMETER OF PIT.
- 4. PLANT MAINTENANCE
  - A. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE FOR 90 DAYS AFTER THE LAST PLANT HAS BEEN INSTALLED.
  - B. ALL PLANTS SHALL BE KEPT IN A GROWING, HEALTHY CONDITION BY WATERING, PRUNING, SHEARING, SPRAYING, STRAIGHTENING OF PLANTS WHICH LEAN OR SAG, LIFTING PLANTS WHICH DEVELOP MORE THAN NORMAL SETTLEMENT, WEEDING, AND BY ANY OTHER NECESSARY OPERATION OF MAINTENANCE. KEEP ALL PLANTING AREAS FREE OF WEEDS AND UNDESIRABLE GRASSES.
  - C. DURING THE MAINTENANCE PERIOD, PLANTS IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION, SHALL BE REMOVED AND REPLACED IMMEDIATELY USING SPECIFIED MATERIAL.
  - D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY GUY WIRES OR STAKES THAT MAY BE USED DURING THE PLANTING OF THIS PLANTING PLAN ONE YEAR AFTER FINAL ACCEPTANCE.
- 5. ACCEPTANCE AND GUARANTEE
  - A. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR WITHOUT SATISFACTORY GROWTH, AS DETERMINED BY THE LANDSCAPE DESIGNER, SHALL BE REMOVED AND REPLACED IN NEXT SPECIFIED PLANTING SEASON. ANY REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED AND REPLANTED IN SAME LOCATION FROM WHICH DEAD PLANT WAS REMOVED AND SHALL BE REPLACED AT NO ADDITIONAL COST.
  - B. ALL PLANT MATERIAL SHALL HAVE A ONE YEAR WARRANTY FOR REPLACEMENT.
- 6. DURING THE BIDDING PROCESS, NO PLANTS MAY BE SUBSTITUTED FOR A DIFFERENT PLANT. THE PLAN MUST BE BID AS DRAWN.
- 7. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO COME BACK AFTER ONE YEAR OF ACCEPTANCE OF THE PLANTING TO REMOVE ANY STAKES OR GUY WIRES THAT MAY HAVE BEEN USED.
- 8. ANY DISCREPANCY BETWEEN THE PLANTING PLAN AND THE PLANT SCHEDULE SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE DESIGNER AND THE QUANTITIES SHOWN ON THE PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE.
- 9. ALL AREAS OF TURF SHALL BE SODDED OR SEEDDED AS SHOWN ON THE LANDSCAPE PLAN WITH A BLEND OF 70% TURF TYPE FESCUE, 20% BLUEGRASS AND 10% ANNUAL RYE.
- 10. ALL SHRUBS THAT ARE SHOWN IN GROUPINGS SHALL BE MULCHED TOGETHER WITH SHREDDED HARDWOOD MULCH AT A MINIMUM OF 3" IN DEPTH.
- 11. ANNUALS AND PERENNIALS SHALL BE AT THE DISCRETION OF THE PROPERTY OWNER AS TO TYPE AND COLOR.

**CONCRETE PAVEMENT NOTES:**

PART 1 GENERAL

- 1.1 QUALITY ASSURANCE
  - A. PERFORM WORK IN ACCORDANCE WITH ACI 301.
  - B. OBTAIN MATERIALS FROM SAME SOURCE THROUGHOUT.
- 1.2 REGULATORY REQUIREMENTS
  - A. CONFORM TO APPLICABLE CODE FOR PAVING WORK ON PUBLIC PROPERTY.
- 1.3 TESTS
  - A. TESTING AND ANALYSIS PERFORMED UNDER PROVISIONS OF SECTION 01450.
  - B. TESTING FIRM WILL TAKE CYLINDERS AND PERFORM SLUMP AND AIR ENTRAINMENT TESTS IN ACCORDANCE WITH ACI 301.
  - C. FOUR CONCRETE TEST CYLINDERS WILL BE TAKEN FOR EVERY 50 OR LESS CUBIC YARDS OF EACH CLASS OF CONCRETE PLACED EACH DAY.
  - D. ONE SLUMP TEST WILL BE TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.
- 1.4 ENVIRONMENTAL REQUIREMENTS
  - A. DO NOT PLACE PAVEMENT WHEN BASE SURFACE OR AMBIENT TEMPERATURE IS LESS THAN 40 DEGREES F, OR IF BASE SURFACE IS WET OR FROZEN.
- PART 2 PRODUCTS
  - 2.1 CONCRETE MATERIALS
    - A. CEMENT: ASTM C 150, AIR ENTRAINING-TYPE IA, PORTLAND CEMENT, GRAY COLOR.
    - B. FINE AND COARSE AGGREGATES: ASTM C 33.
    - C. WATER: CLEAN AND NOT DETRIMENTAL TO IT. CONCRETE.
  - 2.2 FORM MATERIALS
    - A. CONFORM TO ACI 301. IF USING METAL, USE MATERIAL FREE OF DEFORMITIES. IF USING WOOD, USE CONSTRUCTION GRADE LUMBER, SOUND AND FREE OF WARP. MINIMUM 2 INCH NOMINAL THICKNESS, EXCEPT WHERE SHORT RADII OF CURVES REQUIRE THINNER FORMS.
    - B. CONNECTION JOINT DEVICES: GALVANIZED SHEET METAL, KEYS, PROFILE, WITH KNACK-OUTS FOR REINFORCING AND DOWEL STEEL.
  - 2.3 REINFORCEMENT
    - A. REINFORCING STEEL: ASTM A 615; 60 KSI YIELD GRADE; DEFORMED BILLET STEEL BARS.
    - B. WELDED STEEL WIRE FABRIC: PLAIN TYPE, ANSI/ASTM A 185; IN FLAT SHEETS, UNCOATED FINISH.
    - C. TIE WIRE: ANNEALED STEEL, MINIMUM 16 GAGE SIZE.
    - D. DOWELS: ASTM A 615; 40 KSI YIELD GRADE, PLAIN STEEL, UNCOATED FINISH.
    - E. MISCELLANEOUS REINFORCING ACCESSORIES: SPACERS, CHAIRS, TIES, AND OTHER DEVICES NECESSARY FOR PROPER PLACING, SPACING, SUPPORTING, AND FASTENING REINFORCEMENT IN PLACE.
  - 2.4 ACCESSORIES
    - A. FORM RELEASE AGENT: NON-STAINING, PARAFFIN-BASED OIL.

**CONCRETE PAVEMENT NOTES(CONT.):**

- 2.5 JOINT FILLERS
  - A. WOOD: CONSTRUCTION GRADE, PRESERVATIVE TREATED YELLOW PINE, SOUND AND FREE OF CHECKS, SPLITS OR OTHER DEFECTS, 3/4 INCH THICK.
  - B. BACKER ROD: AS SPECIFIED IN SECTION 07920.
  - C. SET-RETARDING AGENT: THREE PART POLYURETHANE SEALANTS, OF GRADE AS REQUIRED TO SUIT APPLICATION, MEETING ASTM C 820, IN MANUFACTURER'S CUSTOM COLORS, AND AS FOLLOWS: REFER TO SECTION 07920 FOR TRAFFIC-BEARING URETHANE SEALANT, TYPE U-TB.
- 2.6 ADMIXTURES
  - A. ACCEPTABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS INDICATED. PROVIDE PROFILES OF ONE OF THE FOLLOWING:
    1. W. R. GRACE & CO.
    2. EUCLID CHEMICAL COMPANY.
    3. SIKA CORPORATION
    4. MASTER BUILDERS, INC.
  - B. AIR ENTRAINMENT: ASTM C 260.
  - C. CHEMICAL ADMIXTURE: ASTM C 484, TYPE A- CEMENT DISPERSING AND WATER REDUCING. USE TYPE D-WATER REDUCING AND RETARDING, OR TYPE E- WATER REDUCING AND ACCELERATING AS DETERMINED BY CLIMATIC CONDITIONS AND AS APPROVED BY TESTING LABORATORY.
- 2.7 CONCRETE MIX
  - A. MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C 94, ALTERNATE 2.
  - B. USE ACCELERATING ADMIXTURES IN COLD WEATHER ONLY WHEN APPROVED BY TESTING LABORATORY. USE AGT ADMIXTURES WILL NOT RELAX COLD WEATHER PLACEMENT REQUIREMENTS.
  - C. USE SET-RETARDING ADMIXTURES DURING HOT WEATHER ONLY WHEN APPROVED BY TESTING LABORATORY.
  - D. ADD ENTRAINMENT AGENT TO CONCRETE MIX FOR CONCRETE WORK EXPOSED TO EXTERIOR. IN AMOUNTS OF 4 TO 7 PERCENT OF TOTAL CONCRETE VOLUME OR AS OTHERWISE RECOMMENDED BY TESTING LABORATORY.
  - E. MAINTAIN WATER-CEMENT RATIO TO PRODUCE A MINIMUM OF 3 TO MAXIMUM OF 5 INCH SLUMP. USE OF CALCIUM CHLORIDE AND FLY ASH ARE STRICTLY PROHIBITED.

PART 3 EXECUTION

- 3.1 INSPECTION
    - A. VERIFY COMPACTED SUBGRADE OR STABILIZED SOIL IS READY TO SUPPORT PAVING AND IMPOSED LOADS, FREE OF FROST, SMOOTH AND PROPERLY COMPACTED.
    - B. VERIFY GRADIENTS AND ELEVATIONS OF BASE ARE CORRECT, AND PROPER DRAINAGE HAS BEEN PROVIDED SO THAT WATER DOES NOT STAND IN THE AREA TO RECEIVE PAVING.
  - 3.2 FORMING
    - A. CONSTRUCT AND REMOVE FORMS IN ACCORDANCE WITH ACI 347.
    - B. PLACE AND SECURE FORMS TO CORRECT LOCATION, DIMENSION, AND PROFILE. ADEQUATELY BRACE TO WITHSTAND LOADS APPLIED DURING CONCRETE PLACEMENT.
    - C. ASSEMBLE FORMWORK TO PERMIT EASE STRIPPING AND DISMANTLING WITHOUT DAMAGING CONCRETE.
    - D. PLACE JOINT FILERS VERTICAL, IN POSITION, IN STRAIGHT LINES. SECURE TO FORMWORK DURING CONCRETE PLACEMENT.
  - 3.3 INSERTS AND ACCESSORIES
    - A. MAKE PROVISIONS FOR INSTALLATION OF INSERTS, ACCESSORIES, ANCHORS, AND SLEEVES.
  - 3.4 REINFORCEMENT
    - A. ACCURATELY PLACE REINFORCEMENT IN MIDDLE OF SLABS-ON-GRADE.
    - B. INTERRUPT EVERY OTHER BAR OF REINFORCEMENT AT CONTROL AND EXPANSION JOINTS.
    - C. PLACE REINFORCEMENT IN MIDDLE OF SLABS AND CURBS ALIGNMENT AS DETAILED.
    - D. STEEL, FREE OF RUST, MILL SCALE, DIRT AND OIL.
    - E. PROVIDE DOWELED JOINTS AT INTERRUPTIONS OF CONCRETE WITH ONE END OF DOWEL SET IN CAPPED SLEEVE TO ALLOW FOR MOVEMENT. PROVIDE SUPPORT AT BOTH ENDS OF DOWELS.
    - F. SUPPORT REINFORCING ON BAR CHAIRS, SECURELY SADDLE TIE AT INTERSECTIONS, RIGIDLY SECURE IN PLACE TO MINIMIZE DISPLACEMENT DURING CONCRETE POUR.
  - 3.5 JOINTS
    - A. INTENTIONAL STOPPAGE OF CONCRETE PLACING ALLOWED ONLY AT PLANNED LOCATION OF EITHER AN EXPANSION JOINT OR CONTRACTION JOINT.
    - B. WHEN STOPPAGE OCCURS AT AN EXPANSION JOINT, INSTALL JOINT ASSEMBLY WITH A BULKHEAD OF SUFFICIENT SECTION DRILLED TO ACCOMMODATE REQUIRED DOWELS. PROVIDE EXPANSION JOINTS AT MAXIMUM 40'-0" ON CENTER EACH WAY IN PARKING LOTS, 40'-0" ON CENTER FOR CURBS AND MAXIMUM 50'-0" ON CENTER FOR OTHER AREAS.
    - C. WHEN STOPPAGE OCCURS AT A CONTRACTION JOINT, INSTALL SHEET METAL JOINT ASSEMBLY OF SUFFICIENT SECTION TO PREVENT DEFLECTION, SHAPED TO CONCRETE SECTION. DRILL BULKHEAD TO PERFORM JOINTS TO LONGITUDINAL REINFORCING STEEL THROUGH CONSTRUCTION JOINT.
    - D. STOPPAGE AT UNINTENTIONAL LOCATION
      - 1. IMMEDIATELY UPON UNINTENDED STOPPAGE OF CONCRETE PLACING, PLACE AVAILABLE CONCRETE TO A LINE AND INSTALL BULKHEAD PERPENDICULAR TO SURFACE OF PAVEMENT AND AT REQUIRED ELEVATION. PLACE AND FINISH CONCRETE TO THIS BULKHEAD. REMOVE AND DISPOSE OF CONCRETE REMAINING ON SUBGRADE AHEAD OF BULKHEAD.
      - 2. WHEN PLACING OF CONCRETE IS RESUMED BEFORE CONCRETE HAS SET TO EXTENT THAT CONCRETE WILL STAND ON REMOVAL OF BULKHEAD, ROD NEW CONCRETE WITH THE FIRST, OTHERWISE, CAREFULLY PRESERVE JOINT FACE.
      - 3. PROVIDE A JOINT SEAL, SPACE AT EDGES CREATED BY A CONTRACTION JOINT OF THIS TYPE, AS DETAILED ON DRAWINGS.
    - E. PROVIDE SAWED CONTRACTION JOINTS IN VEHICULAR PAVING AND CURBS SPACED AS DETAILED ON DRAWINGS, BUT IN NO CASE GREATER THAN 20 FOOT ON CENTER SPACING.
    - F. SAW JOINTS AFTER COMPLETION OF FINISHING OPERATIONS AS SOON AS CONCRETE HAS HARDENED TO EXTENT NECESSARY TO PREVENT REVEALING OF JOINT OR DAMAGE TO ADJACENT CONCRETE SURFACES.
    - G. SAW JOINTS SAME DAY THAT CONCRETE IS PLACED EXCEPT THAT SAWING OF JOINTS IN CONCRETE PLACED LATE IN DAY MAY BE DELAYED UNTIL MORNING OF FOLLOWING DAY.
    - H. IN ANY EVENT, SAW JOINTS WITHIN 18 HOURS AFTER PLACING CONCRETE.
    - I. USE A POWER-DRIVEN CONCRETE SAW MADE ESPECIALLY FOR SAWING CONCRETE AND MAINTAIN IN GOOD OPERATING CONDITION.
    - J. SAW BLADES: MAKE A CLEAN, SMOOTH CUT, PRODUCING A GROOVE 1/8 INCH TO 3/16 INCH WIDE AND A DEPTH EQUAL TO 1/4 OF SLAB THICKNESS, MINIMUM 1 INCH DEPTH.
    - K. A 1/8-INCH RADIUS TO EACH WAY AT REGISTRATION POINTS.
    - L. CUT JOINTS THROUGH CURBS AT RIGHT ANGLES TO BACK OF CURB.
  - F. PLACE JOINT FILLER BETWEEN PAVING COMPONENTS AND BUILDING OR OTHER APPURTENANCES. RECESS TOP OF FILLER 1/4 INCH FOR BACKING ROD AND SEALANT PLACEMENT. INSTALL SEALANT OVER BACKING ROD IN ACCORDANCE WITH SECTION 07920 AND MANUFACTURER'S RECOMMENDATIONS.
  - G. PROVIDE 3/4 INCH DEEP SCORED JOINTS IN SIDEWALKS AND PLAZAS AT INTERVALS AS INDICATED, BUT IN NO CASE SPACED GREATER THAN WIDTH OF WALK.
- 3.6 PLACING CONCRETE
  - A. HOT WEATHER PLACEMENT: ACI 305.
  - B. COLD WEATHER PLACEMENT: ACI 306.
  - C. ENSURE REINFORCEMENT, INSERTS, EMBEDDED PARTS, AND FORMED JOINTS ARE NOT DISTURBED DURING CONCRETE PLACEMENT.
  - D. PLACE CONCRETE CONTINUOUSLY BETWEEN PREDETERMINED CONSTRUCTION JOINTS. DO NOT BREAK OR INTERRUPT SUCCESSIVE POURS SUCH THAT COLD JOINTS OCCUR.
- 3.7 FINISHING AND CURING
  - A. AFTER CONSOLIDATING AND SCREEDING, FLOAT CONCRETE TO GRADIENTS INDICATED. USE A STRAIGHT EDGE TO LEVEL, AND TEST SURFACE IN LONGITUDINAL DIRECTION TO REQUIRED GRADE. FINISH EDGES TO PROVIDE A SMOOTH DENSE SURFACE WITH 1/8 INCH RADIUS.
  - B. IMMEDIATELY AFTER PLACEMENT, PROTECT CONCRETE UNDER PROVISIONS OF SECTION 01600 FROM PREMATURE CURING, EXCESSIVE HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY.
  - C. PLACE CURING COMPOUND ON EXPOSED CONCRETE SURFACES IMMEDIATELY AFTER FINISHING. APPLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
  - D. FINISHES:
    1. VEHICULAR PAVING: HEAVY BROOM.
    2. SIDEWALK PAVING: LIGHT BROOM, RADIIUSED AND TROWEL JOINT EDGES.
    3. CURBS AND GUTTERS: LIGHT BROOM.
    4. UNDEID PEDESTRIAN RAMPS: BROOM PERPENDICULAR TO SLOPE.
    5. CURB RAMPS FOR THE DISABLED:
      - a. STAMPED DURING FINAL FINISHING TO CREATE RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES, WITH A VISUAL CONTRAST TO ADJOINING SURFACES.
- 3.8 FIELD QUALITY CONTROL
  - A. FIELD INSPECTION AND TESTING PERFORMED UNDER PROVISIONS OF SECTION 01450.
  - B. MAINTAIN RECORDS OF PLACED CONCRETE ITEMS. RECORD DATE, LOCATION OF POUR, QUANTITY, AIR TEMPERATURE, AND TEST SAMPLE TAKEN.
- 3.9 SCHEDULES (UNLESS NOTED OTHERWISE RECOMMENDED BY SOILS INVESTIGATION REPORT OR IF OTHERWISE INDICATED ON CIVIL DRAWINGS, PROVIDE THE FOLLOWING MINIMUM STRENGTHS AND THICKNESS)
  - A. CONCRETE SIDEWALKS: 3,000 PSI 28 DAY CONCRETE COMPRESSION STRENGTH, 4 INCHES THICK, 3 INCH MINIMUM AND 4 INCH MAXIMUM SLUMP.
  - B. PARKING AREA PAVEMENT AND CURBS: 3,000 PSI 28 DAY CONCRETE COMPRESSION STRENGTH, 6 INCHES THICK, 3 INCH MINIMUM AND 5 INCH MAXIMUM SLUMP.
  - C. FIRE LANE AND DRIVEWAY PAVEMENT: 4,000 PSI 28 DAY CONCRETE COMPRESSION STRENGTH, 6 INCHES THICK, 3 INCH MINIMUM AND 5 INCH MAXIMUM SLUMP.

REVISIONS


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LEXINGTON, KY 40511



**ACES**  
ARNOLD CONSULTING ENGINEERING SERVICES, INC.  
P.O. BOX 1338  
BOWLING GREEN, KY 42101  
PHONE (270



**GPS NOTE**

THE SURVEY SHOWN HEREON IS BASED ON GPS DATA COLLECTED BY ACES USING BOTH STATIC AND RTK METHODS WITH DUAL FREQUENCY TOPCON HIPER GA (GG2) RECEIVERS. THE ENTIRETY OF THE DATA COLLECTED FOR THIS SURVEY WAS DONE SO THROUGH GPS MEANS WHEN ACCEPTABLE, AND BY CONVENTIONAL MEANS, FROM GPS CONTROL POINTS, WHEN NECESSARY. RTK DATA WAS COLLECTED FOR ANY SITE FEATURES AND ALL CONTROL POINTS AND BOUNDARY INFORMATION WAS COLLECTED IN STATIC MODE WITH A HRMS OF 0.02' OR LESS. VECTORS AND/OR BASELINES HAVE BEEN CHECKED THROUGH STATIC OBSERVATIONS.

**FLOODPLAIN INFORMATION**

THE PROPERTY SHOWN HEREON DOES NOT LIE IN A FLOOD PRONE AREA ACCORDING TO (FIRM) FLOOD INSURANCE RATE MAP FOR FAYETTE COUNTY, KENTUCKY. SAID AREA IS SHOWN ON MAP #2100670108E, WITH AN EFFECTIVE DATE OF MARCH 3, 2014.

**BENCHMARK DATA:**

**BENCHMARK 1**  
 KYTC PUNCHED ALUMINUM CAP LOCATED IN THE SOUTHWEST PROPERTY LINE APPROX. 3.2' FROM THE EXISTING EDGE OF SIDEWALK.  
 ELEV: 941.61

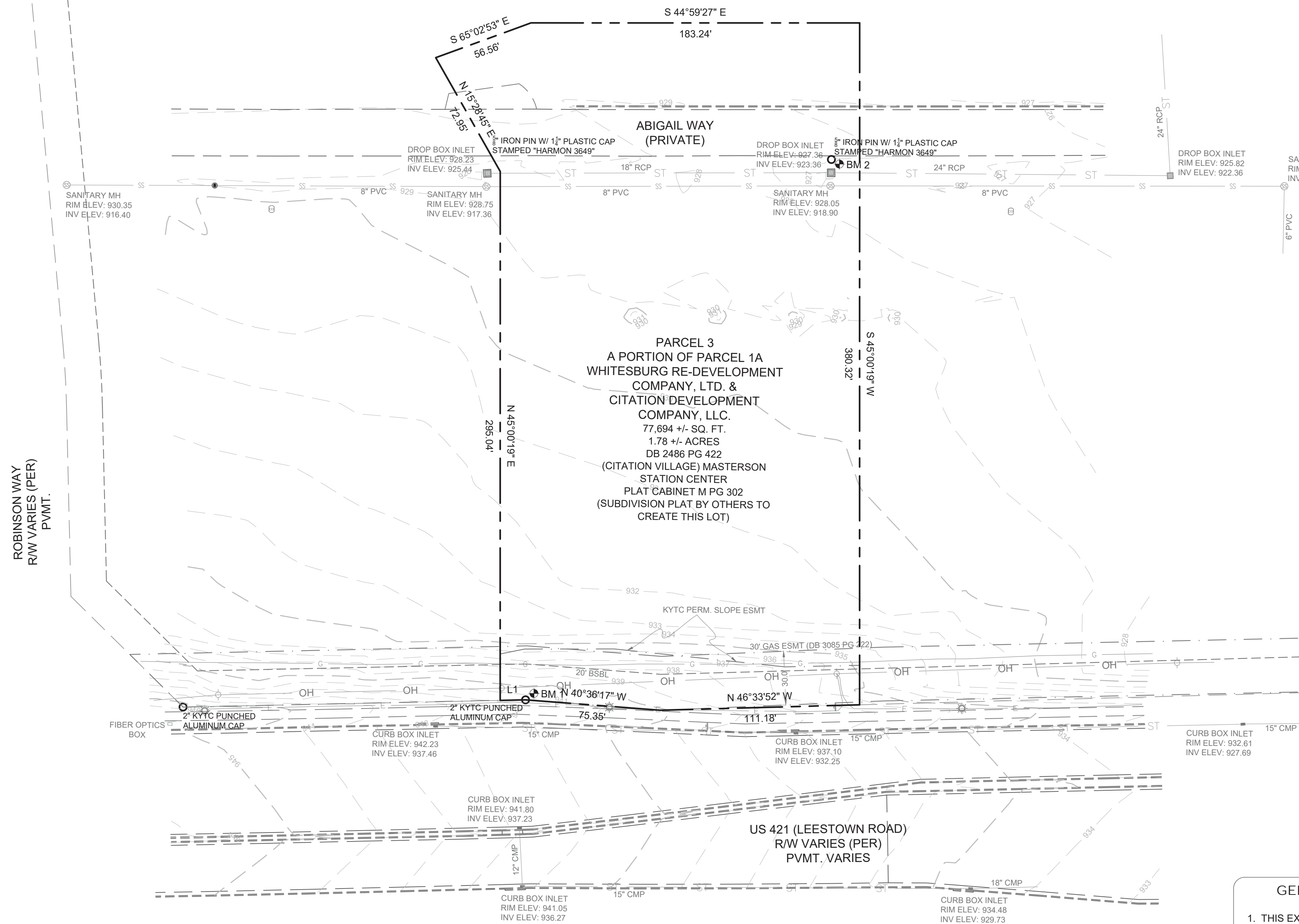
**BENCHMARK 2**  
 1" IRON PIN W/ 1" PLASTIC CAP STAMPED "HARMON 3649" LOCATED APPROX. 2.0' FROM THE EXISTING EDGE OF PAVEMENT OF ABIGAIL WAY.  
 ELEV: 927.95

**TOTAL AREA OF SURVEY**

77,694 +/- SQ. FT.  
 1.78 +/- ACRES

**PARCEL OWNER, ADDRESS, AND SOURCE OF TITLE**

WHITESBURG RE-DEVELOPMENT COMPANY, LTD. & CITATION DEVELOPMENT COMPANY, LLC  
 300 WEST VINE, STE 2200  
 LEXINGTON, KY 40507  
 DEED BOOK 2486 PAGE 422  
 PLAT CABINET M PAGE 302



LINE	BEARING	DISTANCE
L1	N 46°12'14" W	14.16'

**LEGEND**

- BENCHMARK
- IRON PIN FOUND
- IRON PIN SET
- CONCRETE R/W MONUMENT
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEAN OUT
- ANCHOR
- UTILITY POLE
- SIGNAL POLE
- ELECTRIC BOX
- ELECTRIC METER
- GAS VALVE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- GAS METER
- TELEPHONE PESTAL
- STORM SEWER MANHOLE
- DROP BOX INLET
- CURB BOX INLET
- PIPE BOLLARD
- GUTTER OUTLET
- ROAD SIGN
- TREE
- MAILBOX
- LAMP POLE
- BSBL BUILDING SET BACK LINE
- ESOL EACH SIDE OF LINE
- PUE PUBLIC UTILITY EASEMENT
- FFE FINISHED FLOOR ELEVATION
- PROPERTY LINE
- SETBACK LINE
- EASEMENTS
- LOT LINE TO BE ABANDONED
- CENTERLINE
- UNDERGROUND ELECTRIC
- GAS LINE
- OVERHEAD UTILITIES
- BURIED TELEPHONE
- SANITARY SEWER LINE
- WATER LINE
- STORM SEWER LINE
- FENCE LINE
- DRAINAGE ESMT.



**GENERAL NOTES**

- THIS EXHIBIT IS A TOPOGRAPHIC SURVEY ONLY, AND IS NOT TO BE USED AS A BOUNDARY SURVEY, OR AS AN INSTRUMENT TO TRANSFER TITLE. THE BOUNDARY OF THE PROPERTY DEPICTED ON THIS SURVEY IS BASED ON DEED BOOK 2486 PAGE 422 AS FOUND IN THE OFFICE OF THE FAYETTE COUNTY CLERK.
- THE LOCATION OF ALL UTILITIES SHOWN HEREON ARE BASED ON THE FIELD LOCATION OF FOUND VISIBLE STRUCTURES OR AS FLAGGED OR MARKED BY THEIR RESPECTIVE UTILITY COMPANIES. THERE MAY BE OTHER UNDERGROUND UTILITIES LOCATED ON THE PROPERTY SHOWN HEREON. NO GUARANTEE IS EXPRESSED OR IMPLIED TO THE ACTUAL LOCATION OF SAID UTILITIES.
- THIS TOPOGRAPHIC SURVEY IS SUBJECT TO ANY AND ALL FACTS THAT MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH.
- THE PROPERTY SHOWN HEREON IS SUBJECT TO ANY AND ALL LEGAL EASEMENTS AND RIGHT-OF-WAYS RECORDED AND UNRECORDED, INCLUDING BUT NOT LIMITED TO THOSE SHOWN HEREON.
- THE DATUM FOR THIS SURVEY IS GRID NORTH AS ESTABLISHED BY KENTUCKY STATE PLANE COORDINATES, NORTH ZONE 1601. THE VERTICAL DATUM FOR THIS SURVEY IS NAVD 88 AS OBTAINED FROM STATIC OPUS OBSERVATION.

REVISIONS


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 PHONE (270) 780-3445

**JOB NUMBER:**  
 DATE: 11-17-2017  
 SCALE: 1" = 40'  
 DRAWN: E. DURBIN  
 CHECKED: B. HESTER  
 FILE PATH:  
 Z:\SITE\DEVIC1-EXISTING CONDITIONS

**C1**  
 EXISTING TOPOGRAPHY







## WATER QUALITY NOTE:



AREAS HATCHED AS SHOWN ARE TO BE UTILIZED AS POST-CONSTRUCTION WATER QUALITY AREAS. CONTRACTOR IS ADVISED TO LIMIT CONSTRUCTION ACTIVITY TO PREVENT OVER-CONSOLIDATION OF SOIL.

CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM ENTERING WATER QUALITY FEATURES DURING CONSTRUCTION. CONTRACTOR CAN SURROUND WITH INLET PROTECTION BAGS DURING CONSTRUCTION OR CHOOSE TO CONSTRUCT WATER QUALITY FEATURES LAST.

### PHASING SEQUENCE

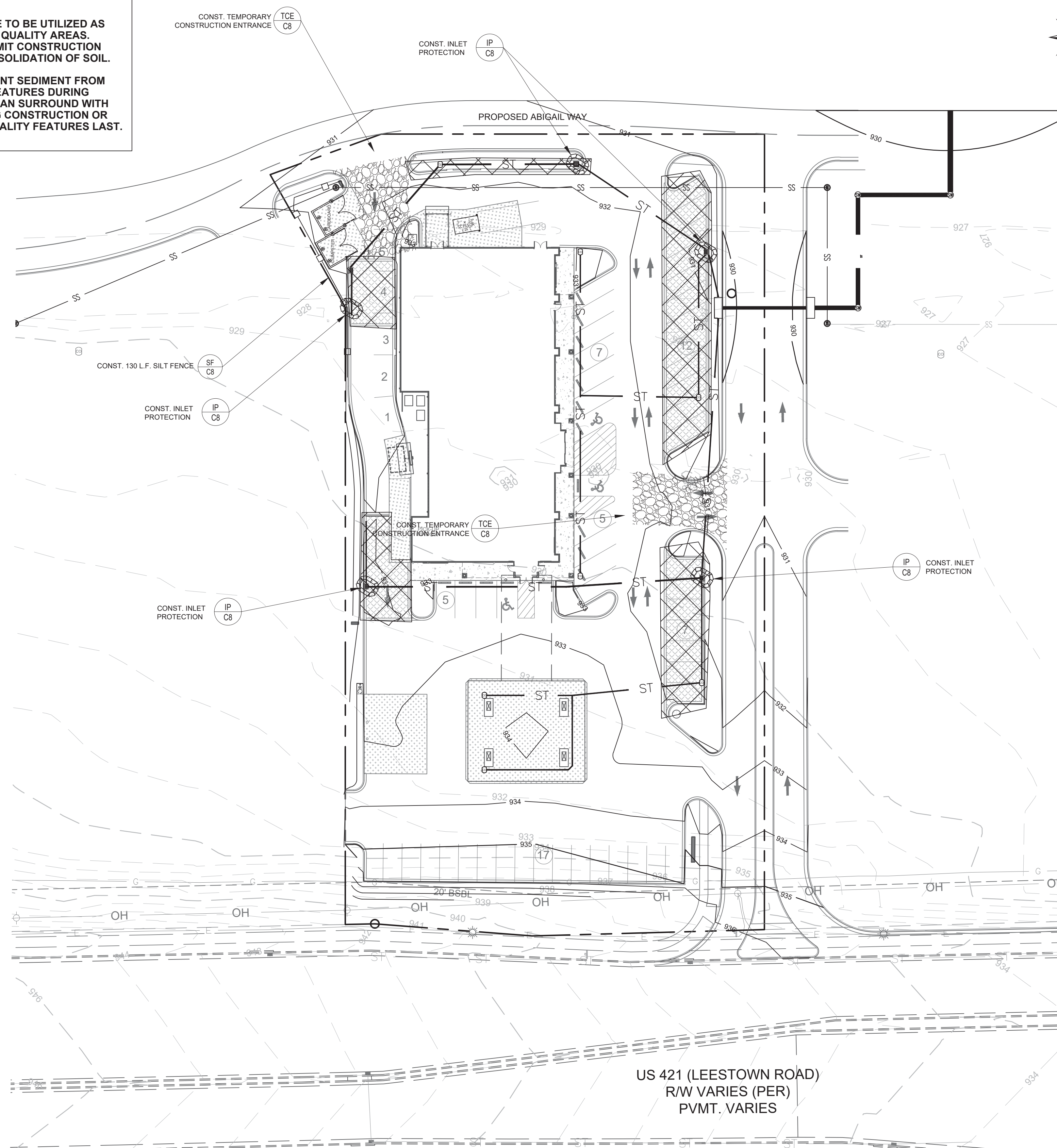
1. CONST. PRE-EROSION CONTROL DEVICES.
2. CONST. ALL STRUCTURAL FILL FOR BUILDING PAD, PARKING LOT, AND LANDSCAPE AREAS
3. CONST. UTILITIES AND STORM SEWER STRUCTURES/PIPES.
  - 3.1. CONST. PERVIOUS PAVER BASINS WITH FILTER FABRIC AND NO. 2 STONE. COVER STONE BASIN WITH FILTER FABRIC UNTIL PARKING LOT IS PAVED.
5. CONST. FINAL-EROSION CONTROL DEVICES.
6. CONST. BUILDING AND DUMPSTER/RECYCLE ENCLOSURE
7. INSTALL CURB, STONE AND ASPHALT/CONCRETE ON DRIVE AISLES AND PARKING LOT.
8. REMOVE EXCESS FILTER FABRIC COVERING PERVIOUS PAVER BASINS AND INSTALL REMAINING STONE AND PAVERS.
9. STABILIZE ALL DISTURBED AREAS WITH SOD OR SEED & STRAW
10. REMOVE APPLICABLE EROSION CONTROL DEVICES.

### CONSTRUCTION LEGEND

- TCE C8 - TEMPORARY CONSTRUCTION ENTRANCE
- SF C8 - SILT FENCE
- IP C8 - INLET PROTECTION

### BENCHMARK DATA:

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 KYTC PUNCHED ALUMINUM CAP LOCATED IN THE SOUTHWEST PROPERTY LINE APPROX. 3.2' FROM THE EXISTING EDGE OF SIDEWALK. ELEV: 941.61
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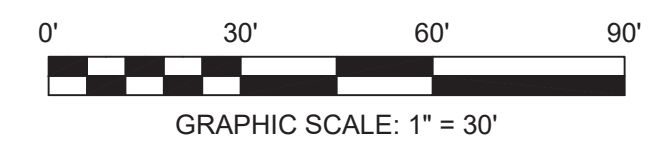


## GENERAL EROSION NOTES:

1. 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.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE STANDARDS OF THE LOCAL AUTHORITY AND AS REQUIRED BY STATE AND FEDERAL LAWS.
3. 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.
4. 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 FOR APPROVAL.
5. 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 LOCAL AUTHORITY MAY SUSPEND DEWATERING OPERATIONS IF POLLUTION IS OBSERVED.
6. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES AT LEAST ONCE A WEEK AND AT LEAST ONCE A DAY DURING RAINFALL EVENTS. THE CONTRACTOR SHALL PERFORM ANY REPAIRS OR MAINTENANCE IMMEDIATELY IN ORDER TO ENSURE EFFECTIVE EROSION AND SEDIMENT CONTROL. THE CONTRACTOR SHALL MAINTAIN A RECORD OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES AT THE PROJECT SITE. THIS RECORD SHALL BE MADE AVAILABLE UPON REQUEST.
7. ALL AREAS DISTURBED SHALL BE STABILIZED ACCORDINGLY. WHEN THE SITE IS BROUGHT TO FINAL GRADE IT MUST BE STABILIZED WITHIN 14 DAYS. DISTURBED AREAS NOT AT FINAL GRADE MUST BE STABILIZED WITHIN 21 DAYS.
8. SWEEP/CLEAN UP ALL SEDIMENT THAT MOVES OFF-SITE TO ROADWAYS DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY LF/CCL. SEPARATE SWEEP MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
9. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.

## SEED AND SOD NOTES:

1. ALL DISTURBED AREAS, INCLUDING WASTE AREAS TO BE SEED OR SODDED (IF NOT NOTED TO BE RIP-RAPPED, OR HARD SURFACED), THE AREA NOTED ON THE PLAN TO BE SEEDDED SHALL BE SPREAD W/ 4" MINIMUM OF TOP SOIL. ALL AREAS TO BE DISKED, LEVELED, AND HAND RAKED. THE TOPSOIL LAYER SHALL BRING ALL TURF AREAS TO FINISH GRADE SURFACE 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.
2. 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 TO MARCH 1, A SEED BLEND WILL BE USED CONSISTING OF 20% ANNUAL RYE.
3. GRASS SEED SHALL BE A TYPE WHICH WILL THRIVE IN THIS PROJECT AREA. SUBMIT PROPOSED SEED MIXTURE TO OWNER FOR APPROVAL. FERTILIZER SHALL BE 10-10-10 TYPE I GRADE A. USE APPROXIMATELY 5 LBS. OF GRASS SEED, AND 10 LBS OF FERTILIZER FOR EACH 1000 SQ. FT. OF GROUND AREA TO BE SEEDDED. COVER ALL SEEDDED AREAS WITH 3 BALES OF WHEAT STRAW FOR EACH 1000 S.F. WATER DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS. AFTER SEED HAS GERMINATED, ALL THIN SPOTS SHALL BE RE-SEEDDED.
4. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING, AND OTHER MAINTENANCE TO SEEDDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. A MINIMUM OF 90% COVERAGE OF SOUND, HEALTHY GRASS SHALL BE REQUIRED FOR ACCEPTANCE.
5. EMBANKMENTS/ SLOPES GREATER THAN 3:1 SHALL EITHER BE SEEDDED AND COVERED WITH AN EROSION CONTROL MATT (LUTE 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.
6. SOD SHALL BE REGIONALLY GROWN AND OF A SPECIES THAT WILL THRIVE IN THE PROJECT AREA.
7. HYDROSEED ALL NEW LAWN AREAS AS SPECIFIED UNLESS PLANS CALL FOR SOD.
8. MIX SEED, FERTILIZER AND PULVERIZED MULCH WITH WATER, USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION.
9. APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDDED. RATE OF APPLICATION AS REQUIRED TO OBTAIN SPECIFIED SEED SOWING RATE.
10. THE SOD SHALL BE RELATIVELY FREE OF DISEASES AND WEEDS. STONES LARGER THAN 1-1/2" IN ANY DIMENSION, PLANT ROOTS AND OTHER MATERIAL DETRIMENTAL TO A HEALTHY STAND OF TURF, TO 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.
11. THE SOD BED WILL BE LOOSENEED TO A DEPTH OF 2" TO A SMOOTH EVEN SURFACE AND SHALL BE GRADED TO SUCH ELEVATION SO THE SOD, WHEN IN PLACE, SHALL BE FLUSH WITH ANY ADJACENT SEEDDED TURFED AREA, PAVEMENT, CURB OR OTHER STRUCTURES EXCEPT WHEN OTHERWISE DIRECTED.
12. 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.
13. 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 IN.
14. PRIOR TO PLACING THE SOD, FERTILIZER 10-10-10 TYPE I 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.
15. 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.
16. ALL SODDED AREAS SHALL BE MAINTAINED (WATERED) AND REPAIRED AS NECESSARY BY THE LANDSCAPE CONTRACTOR UNTIL FINAL ACCEPTANCE OF THE PROJECT.
17. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL SEEDDED 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.



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 CHECKED: A. ARNOLD  
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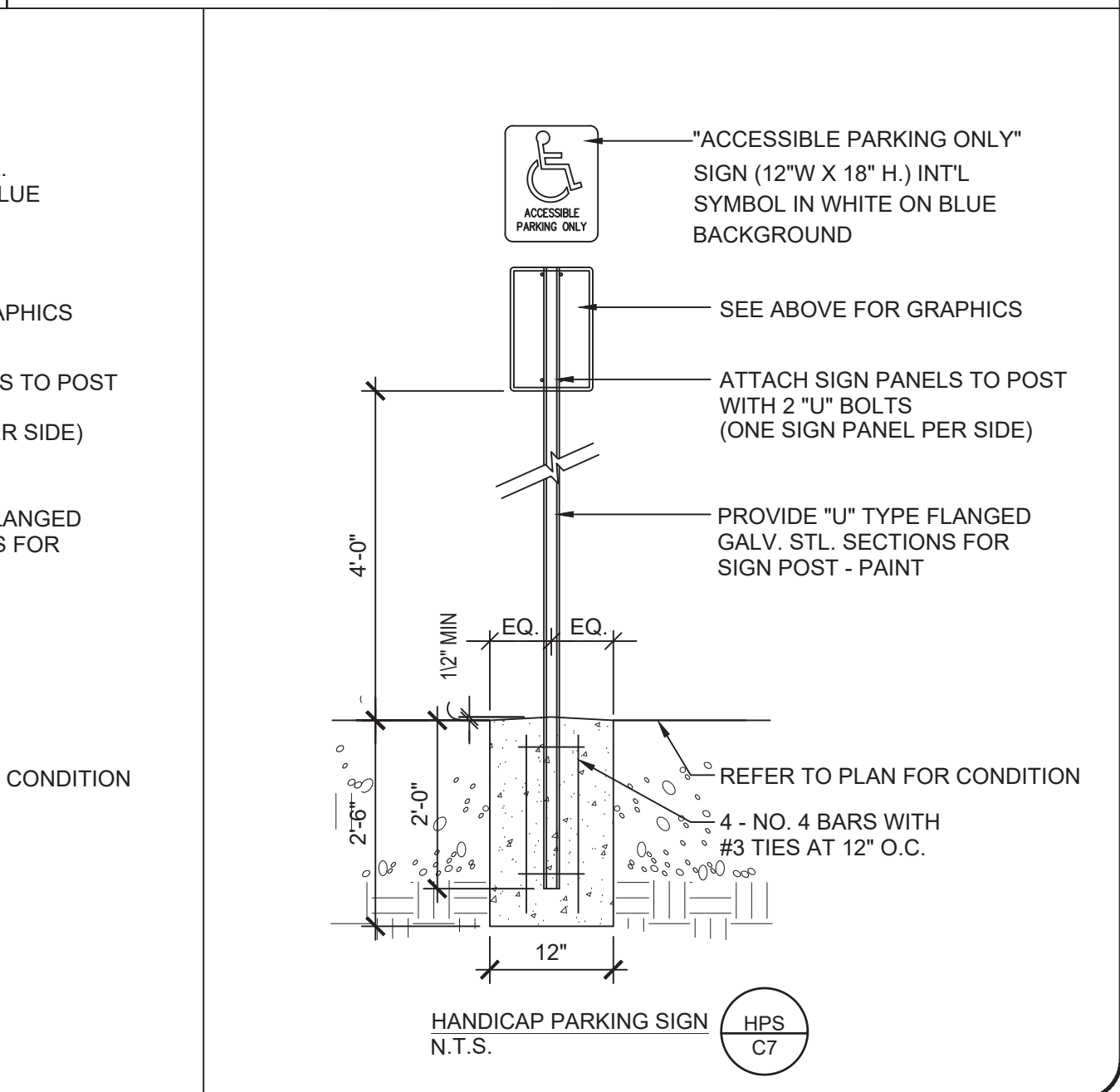
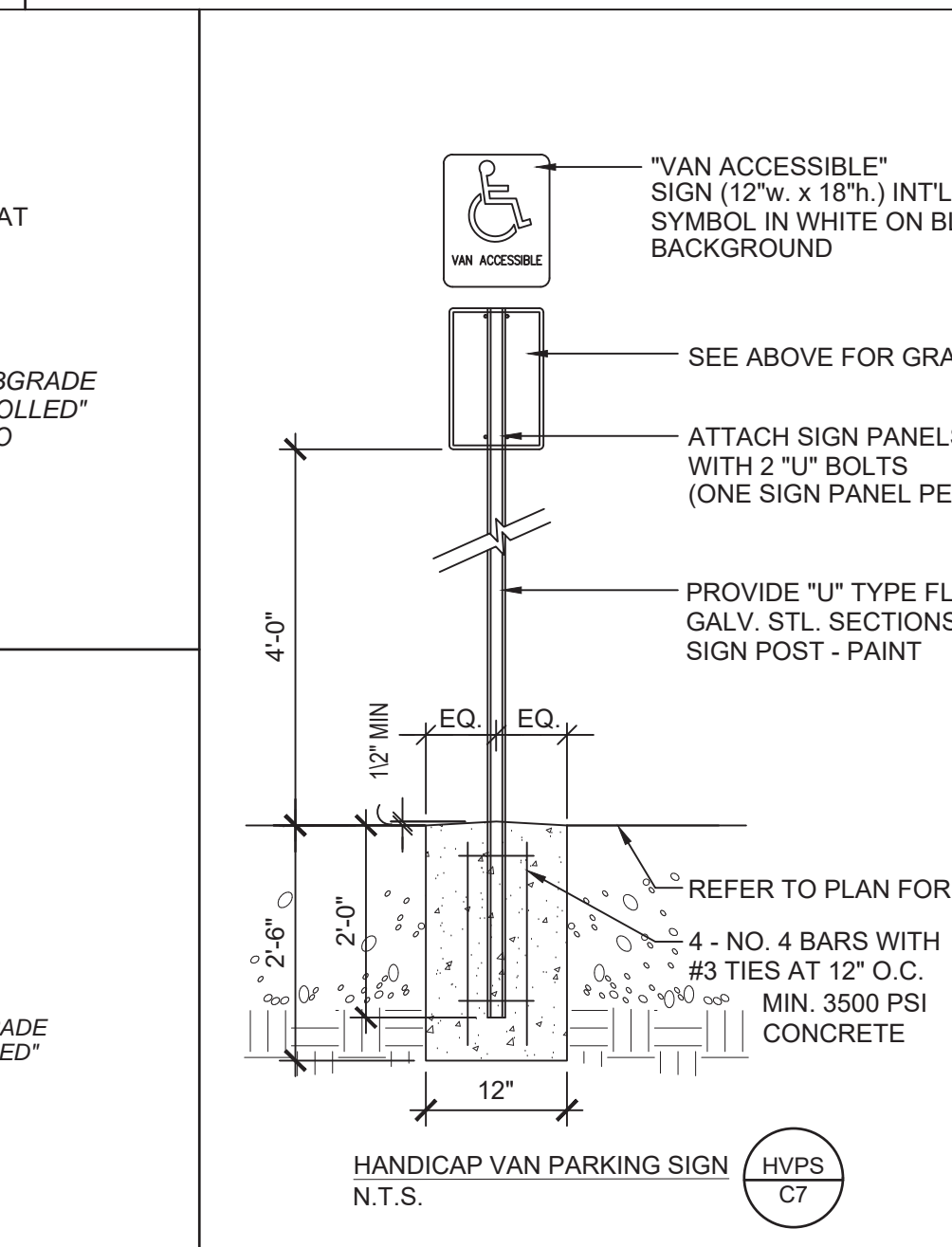
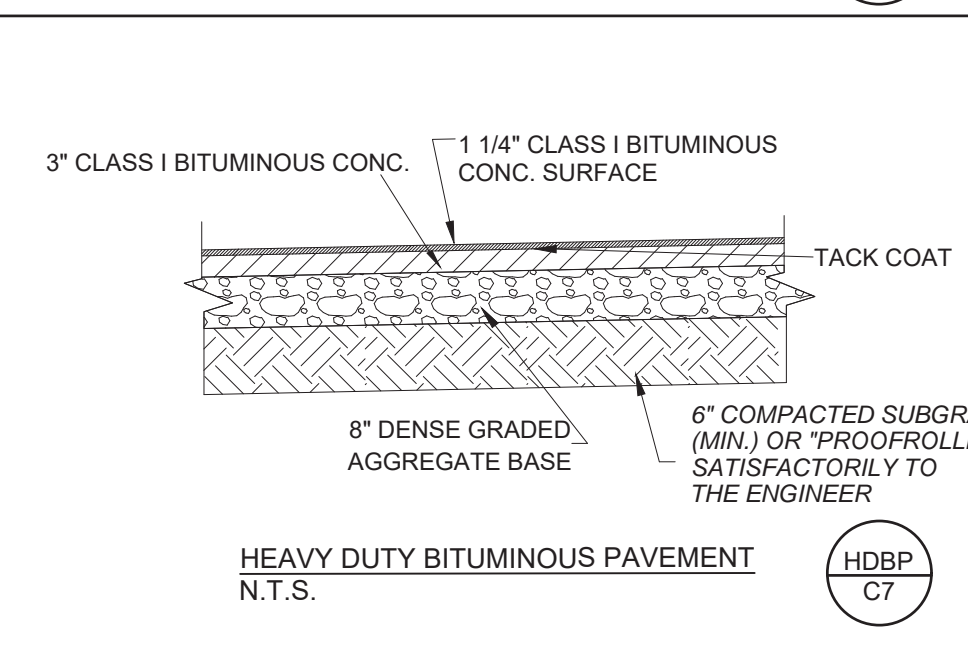
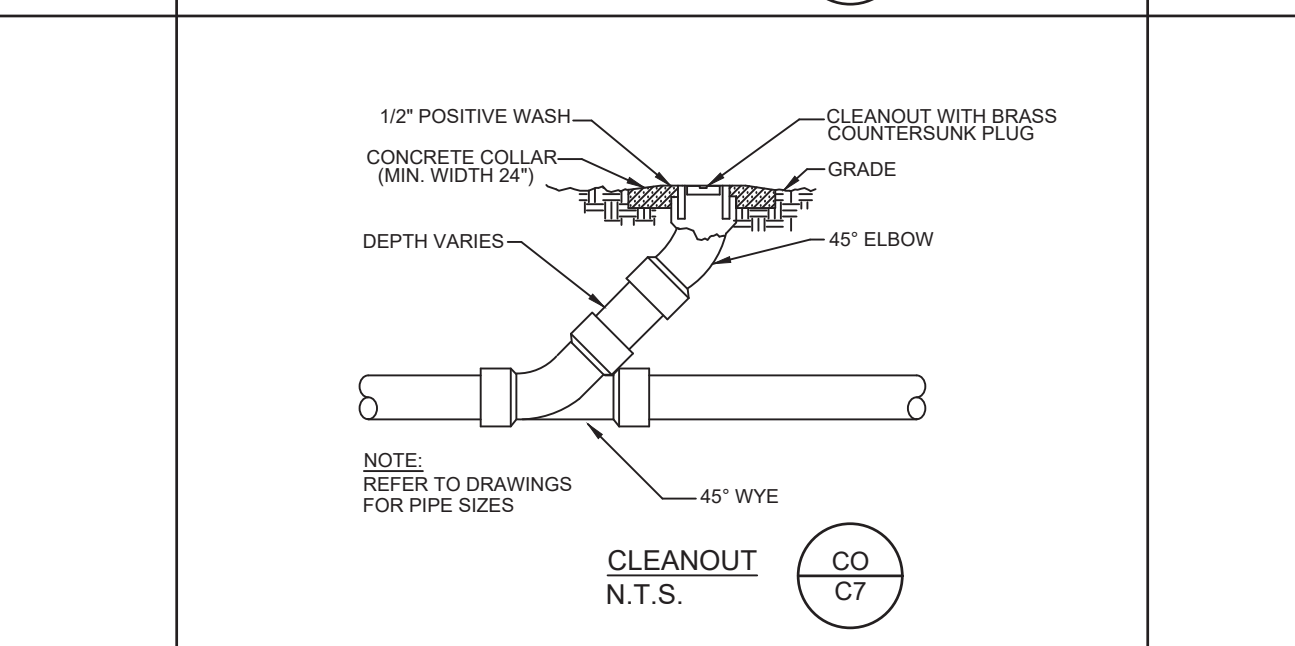
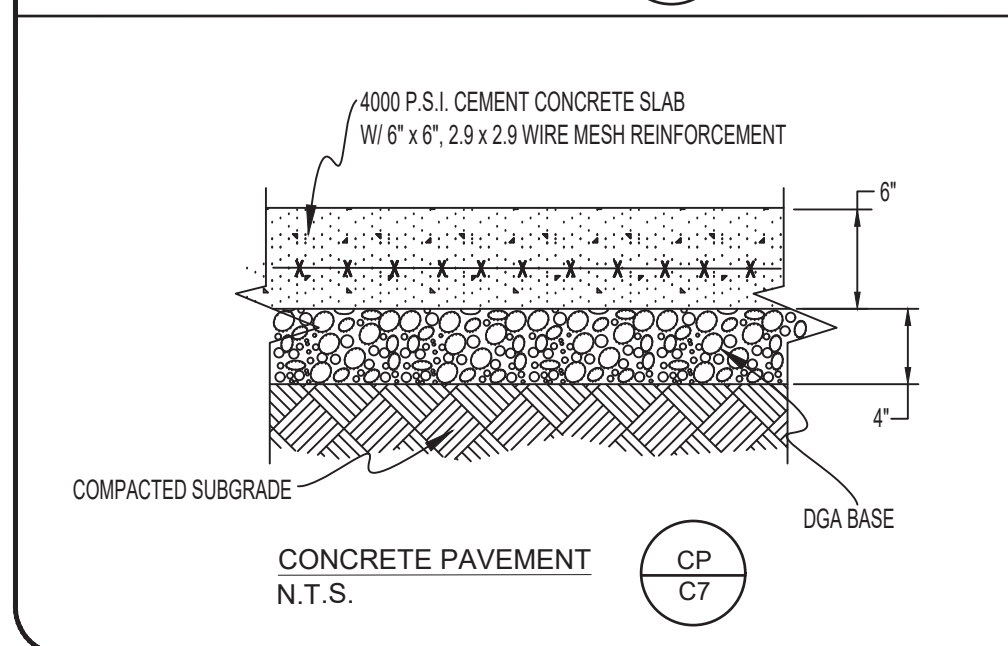
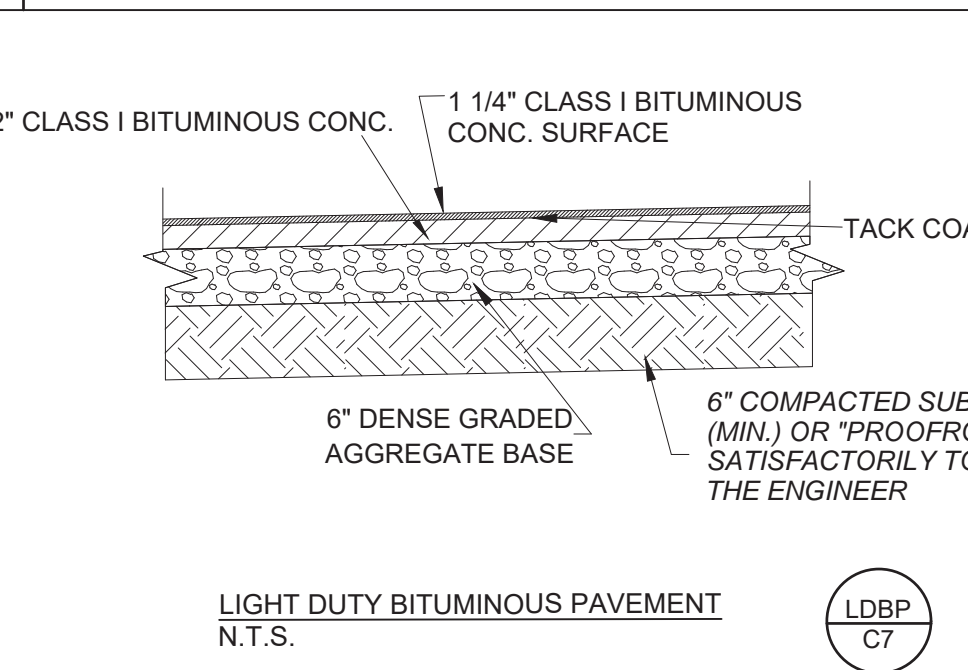
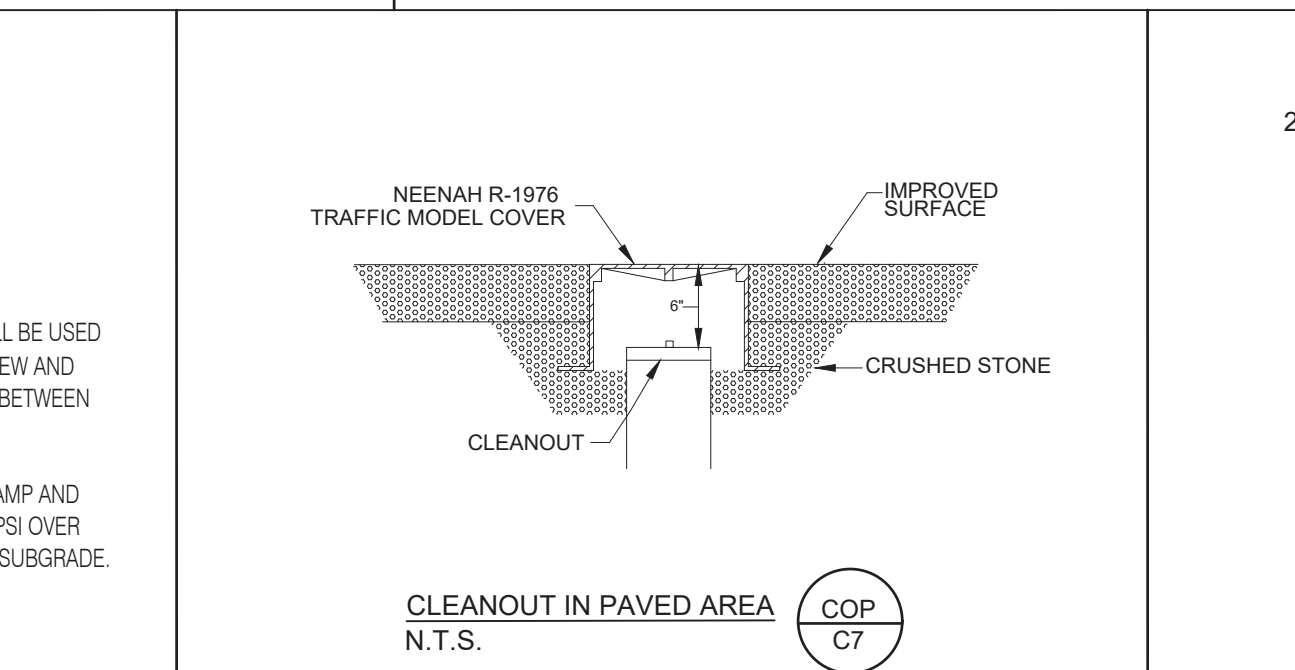
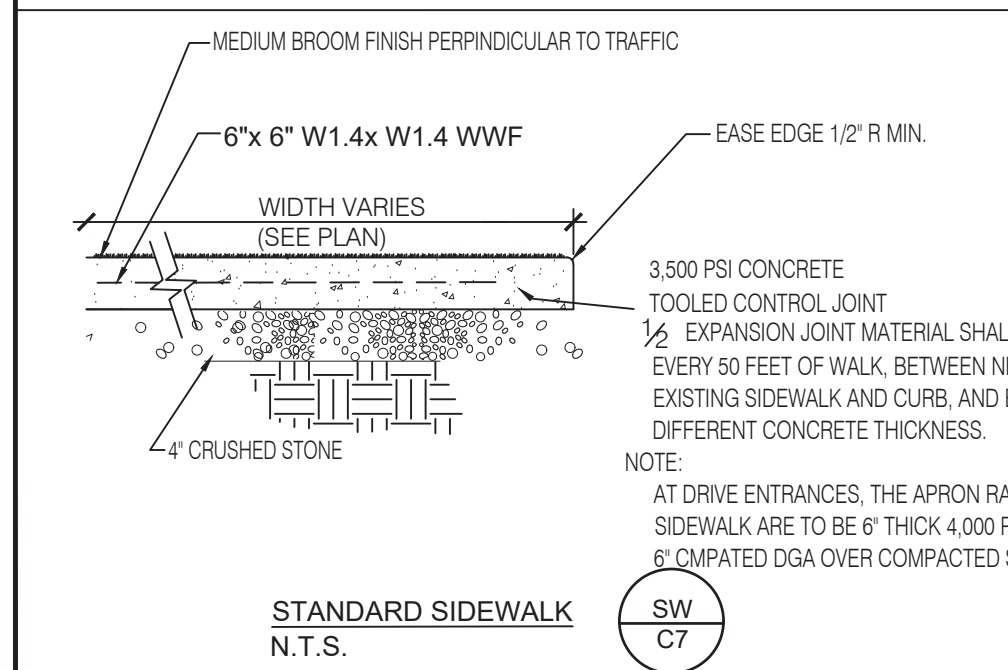
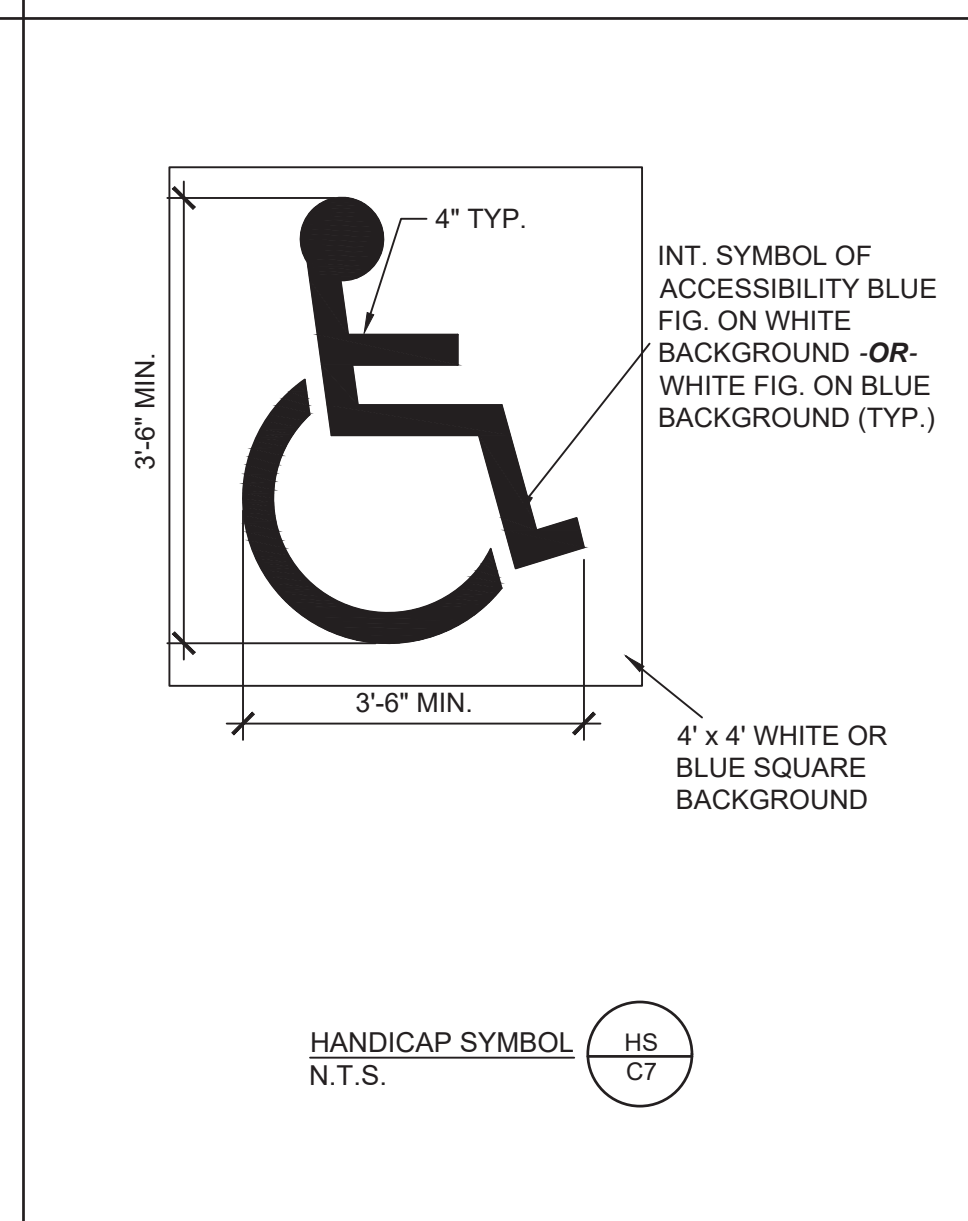
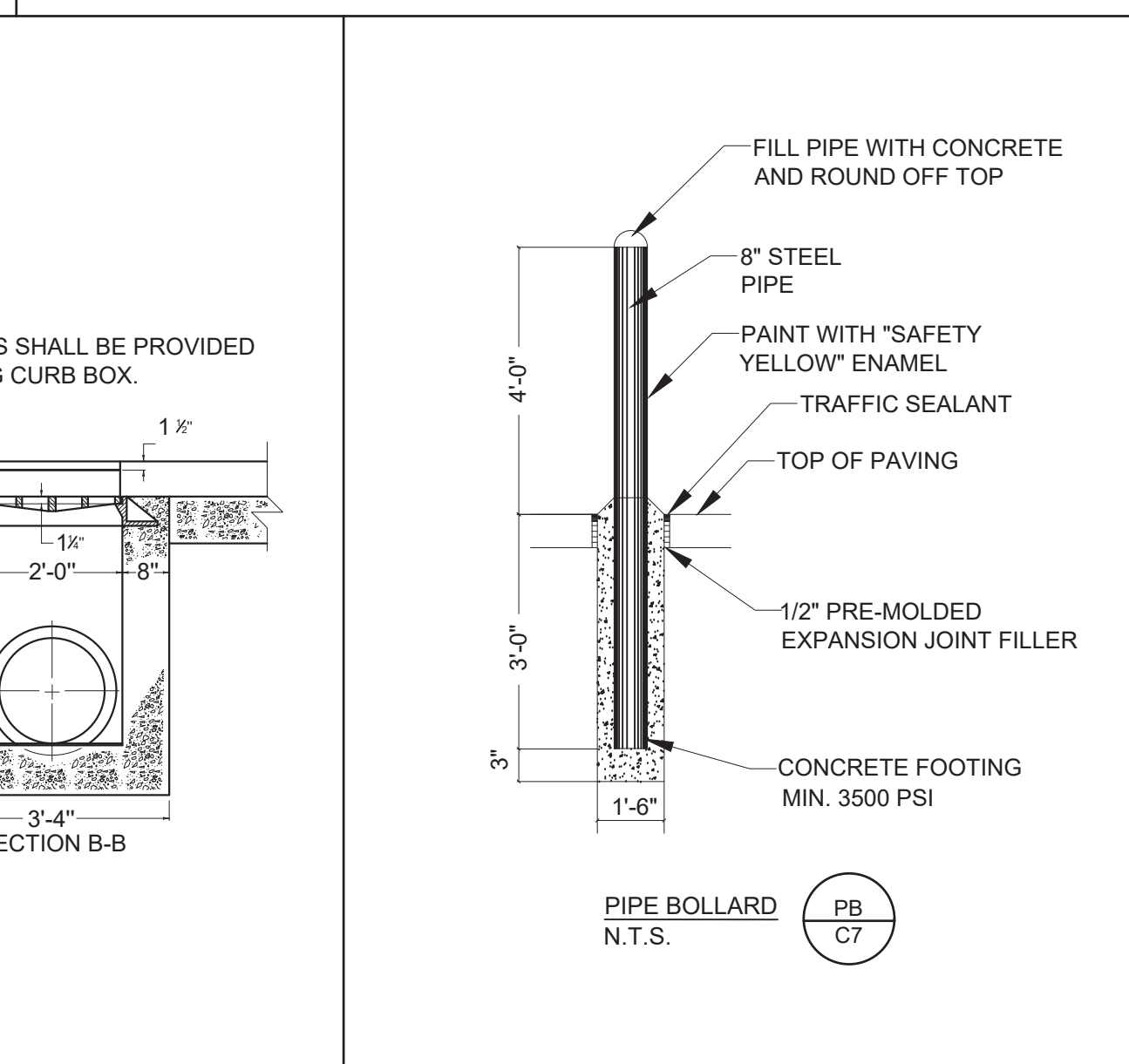
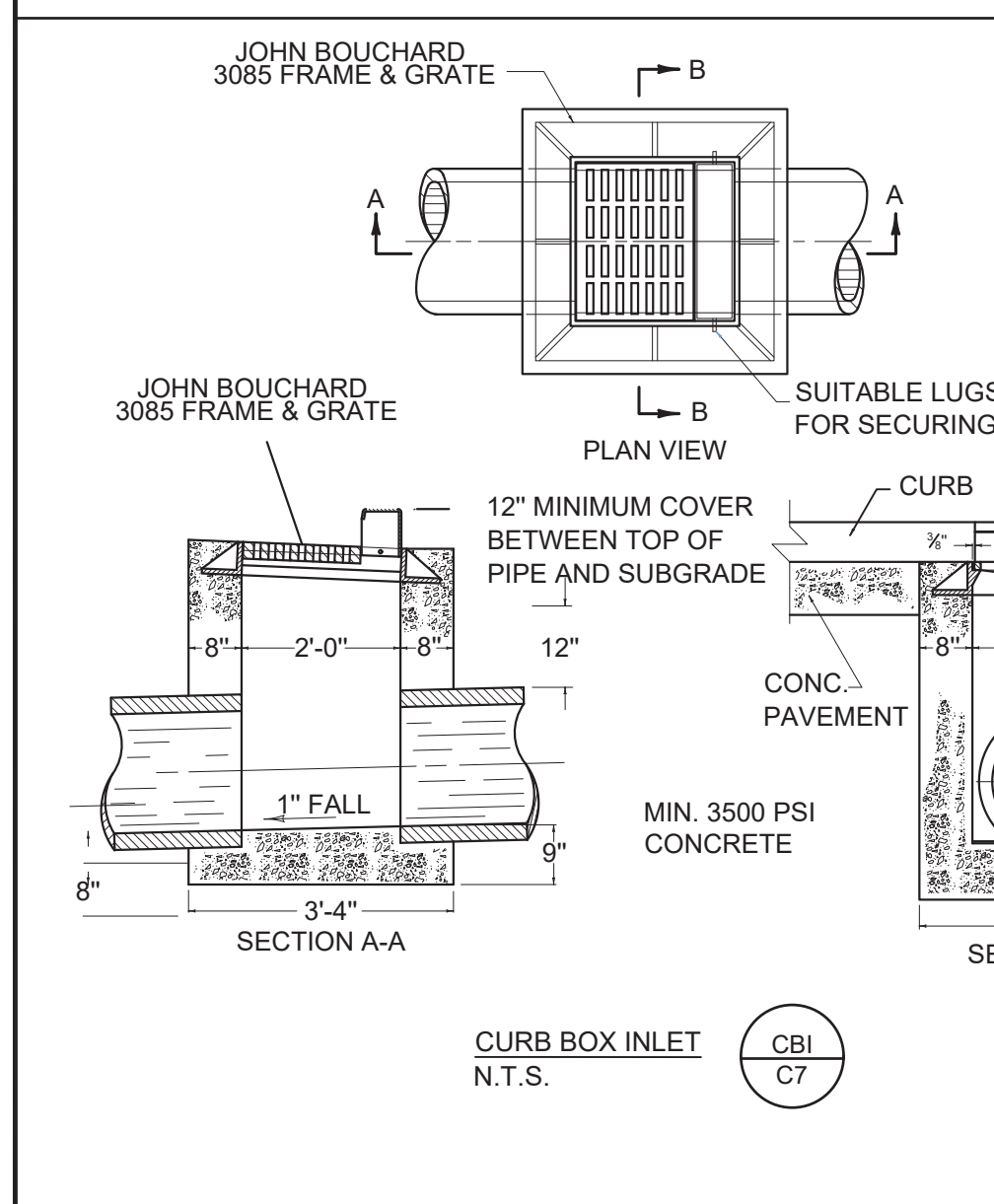
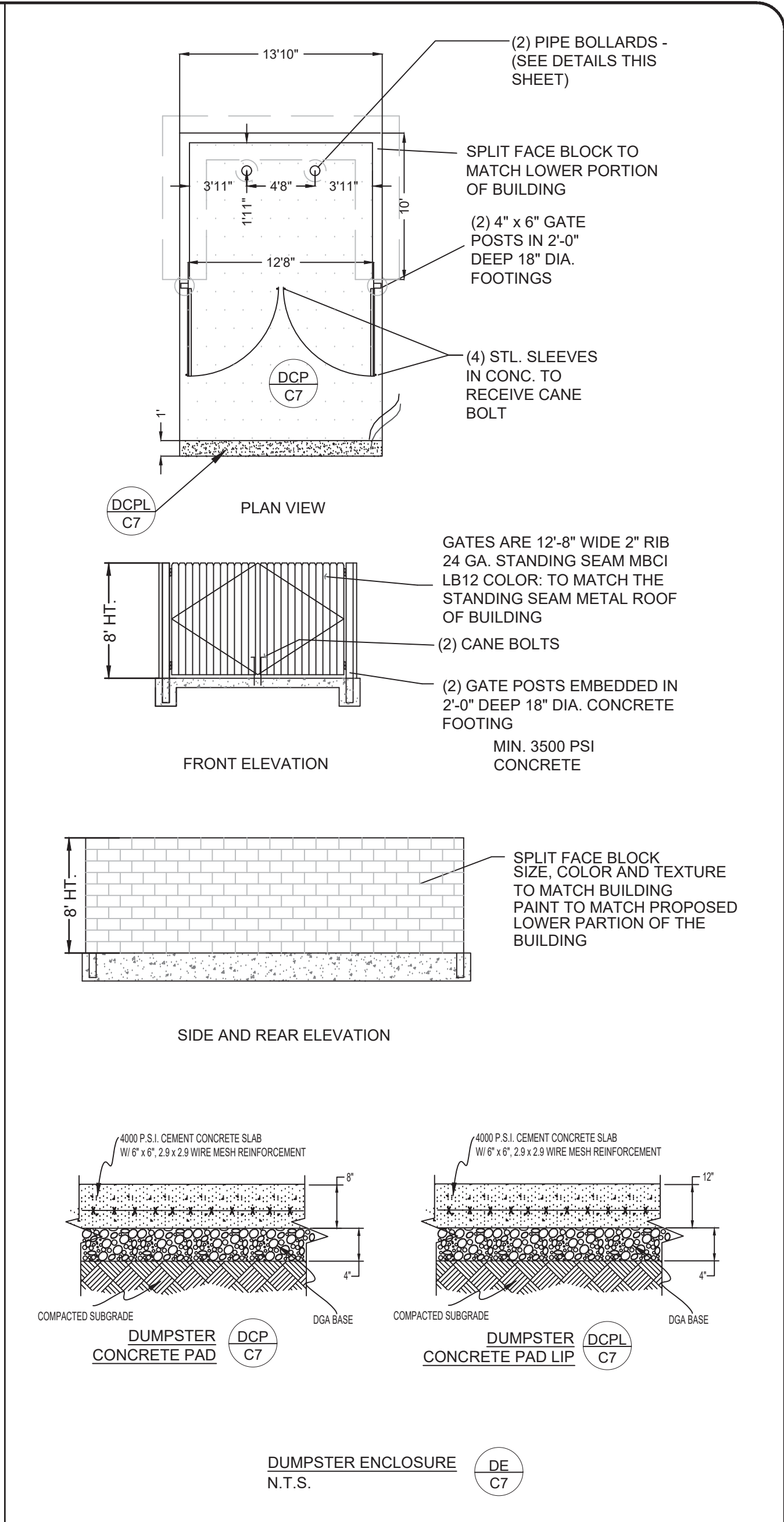
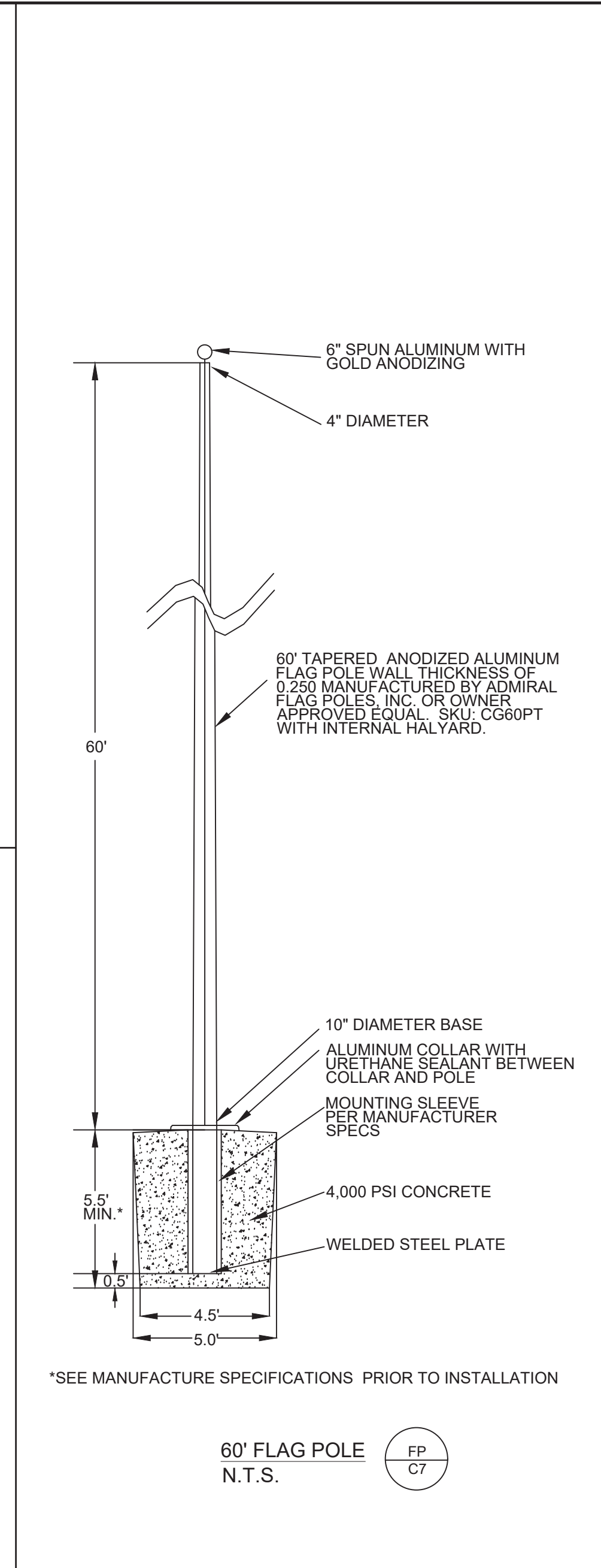
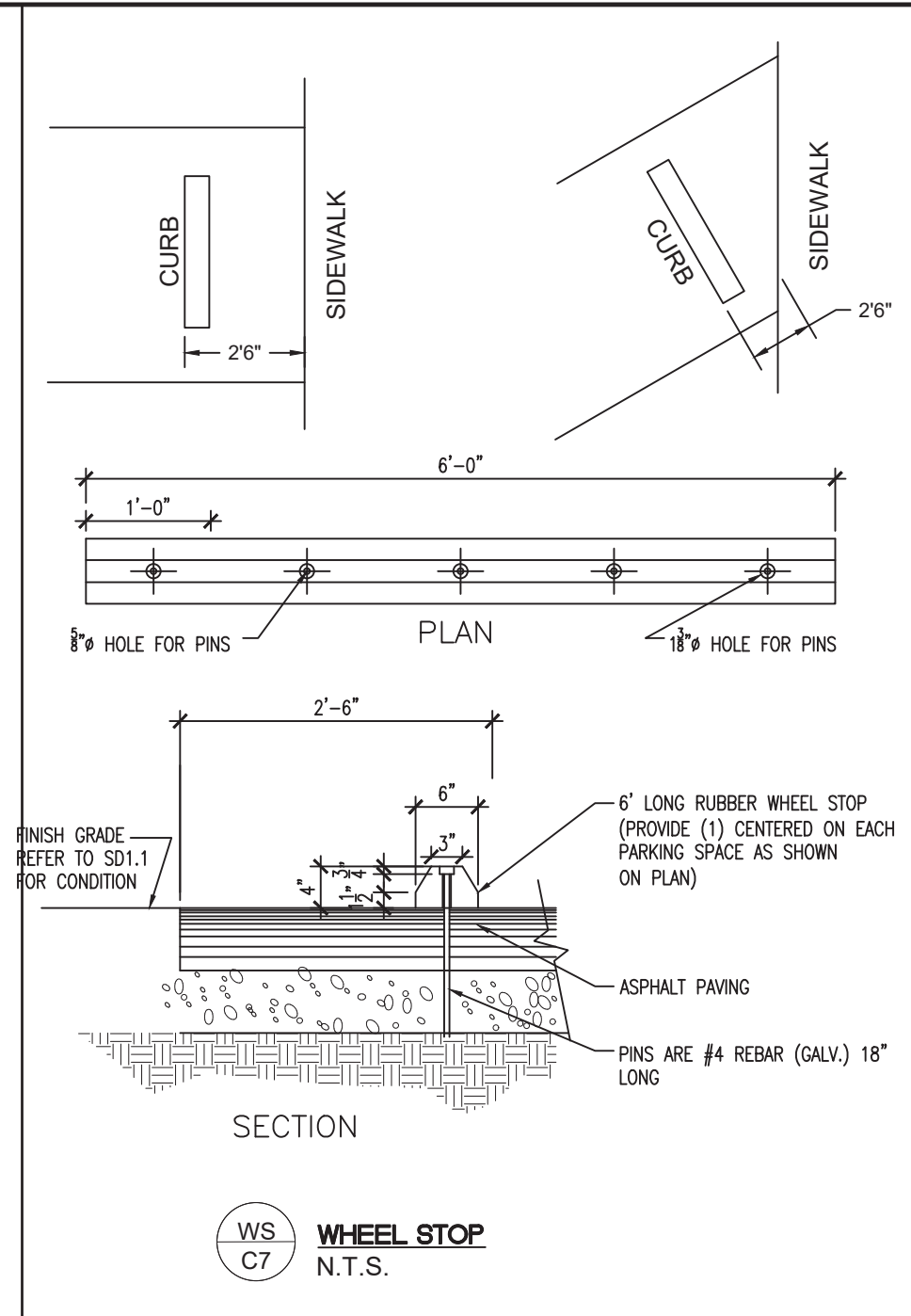
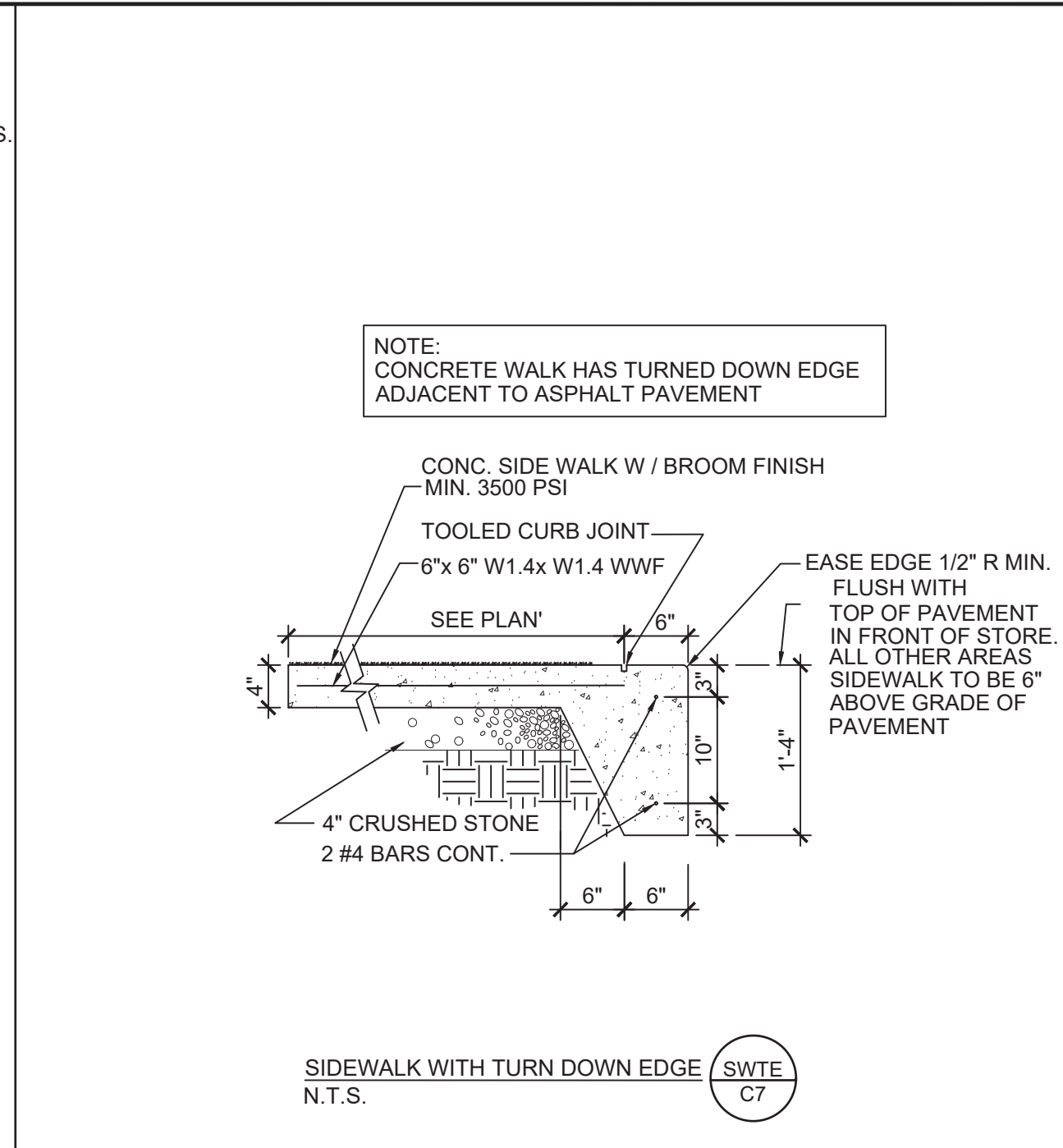
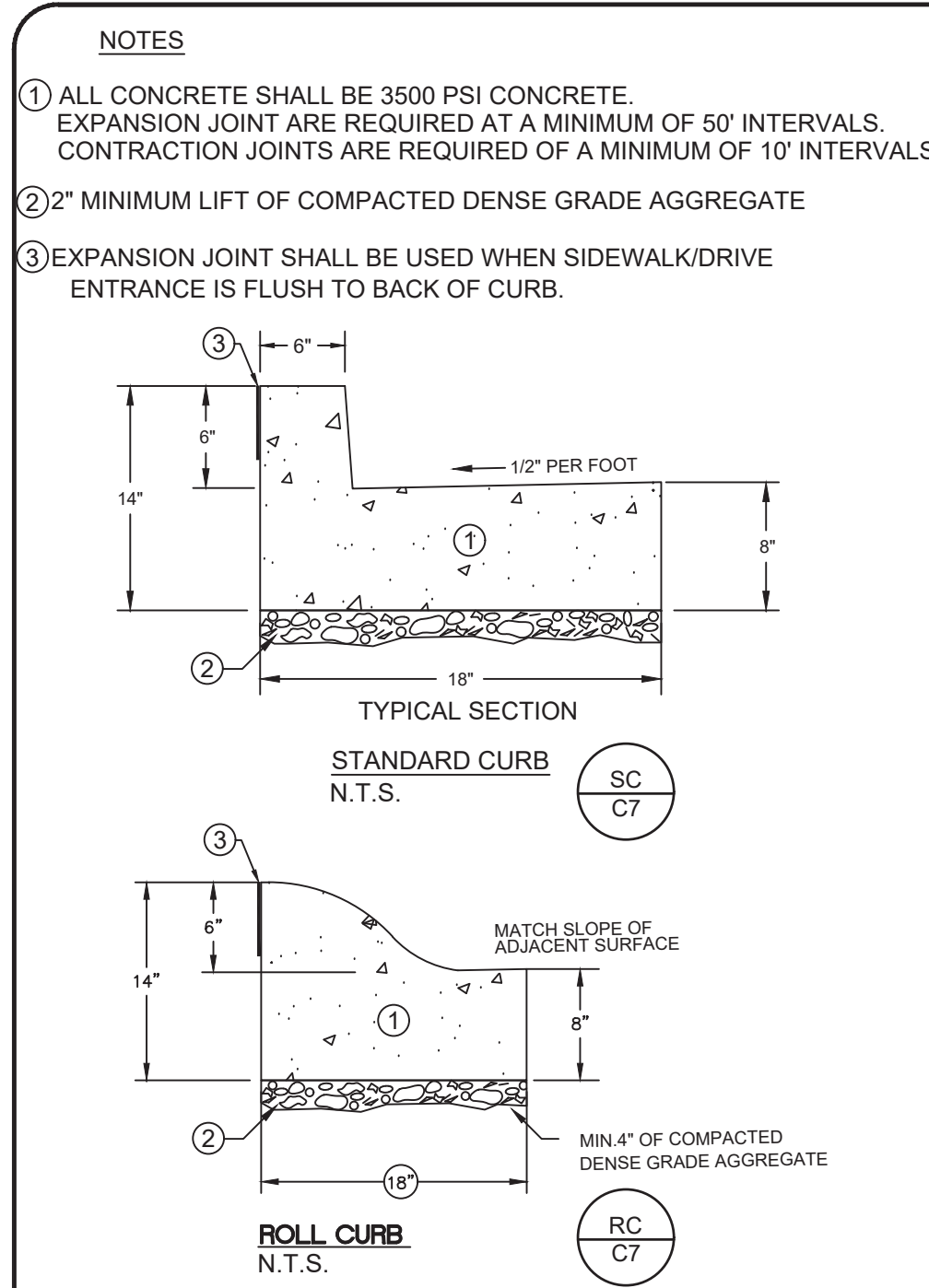


**C4.1**  
 POST-EROSION CONTROL









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**C7**  
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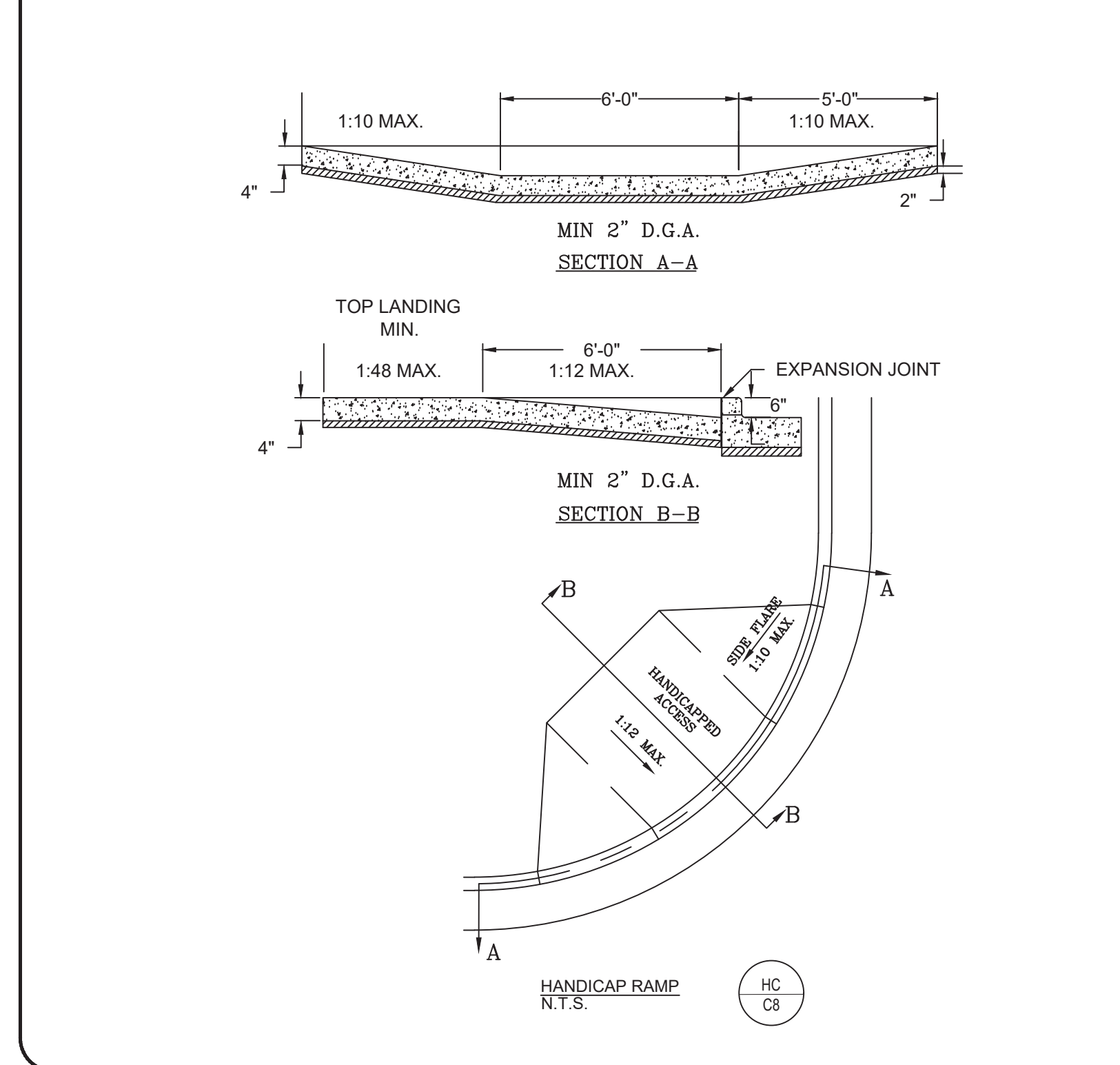
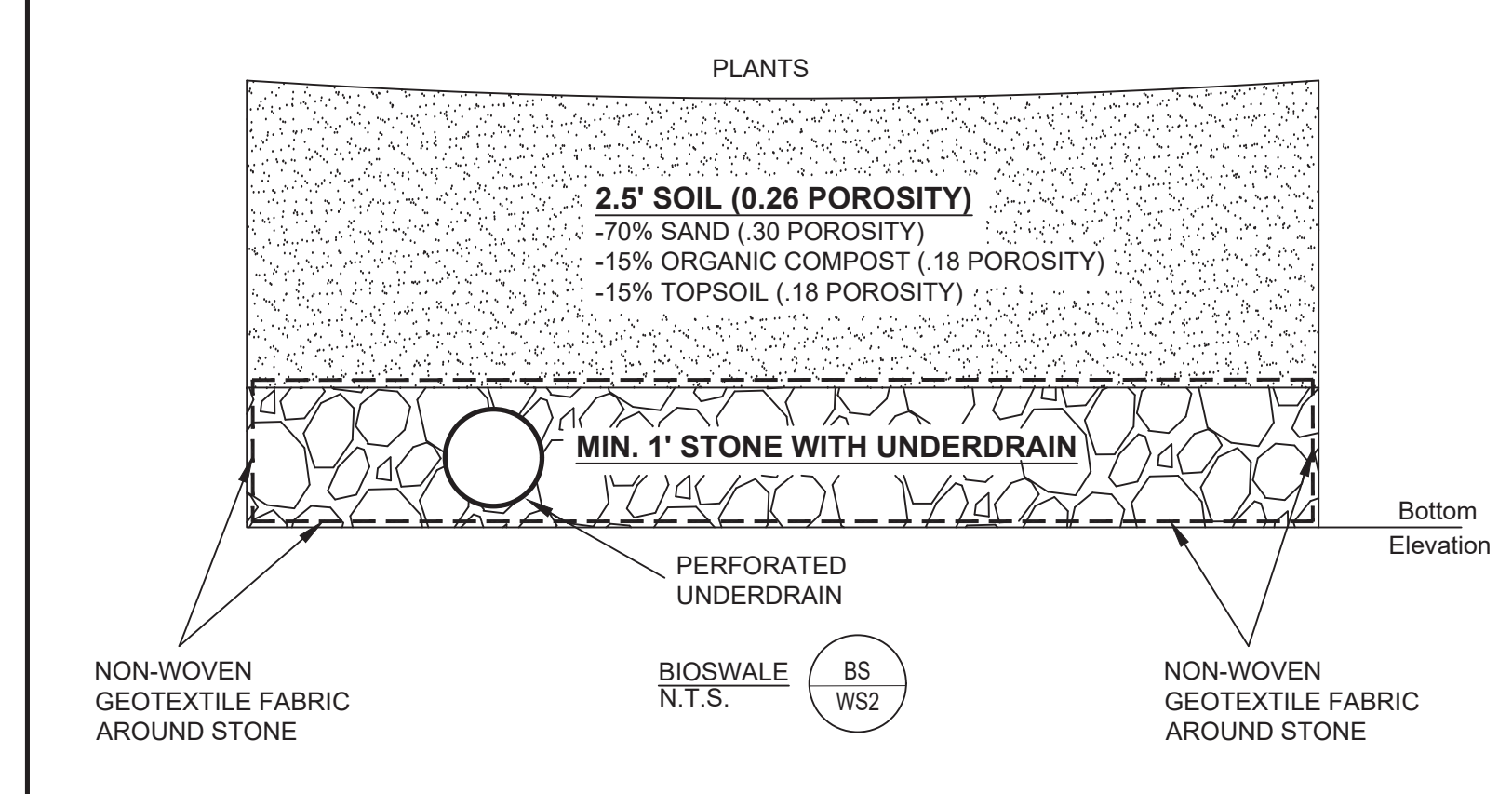
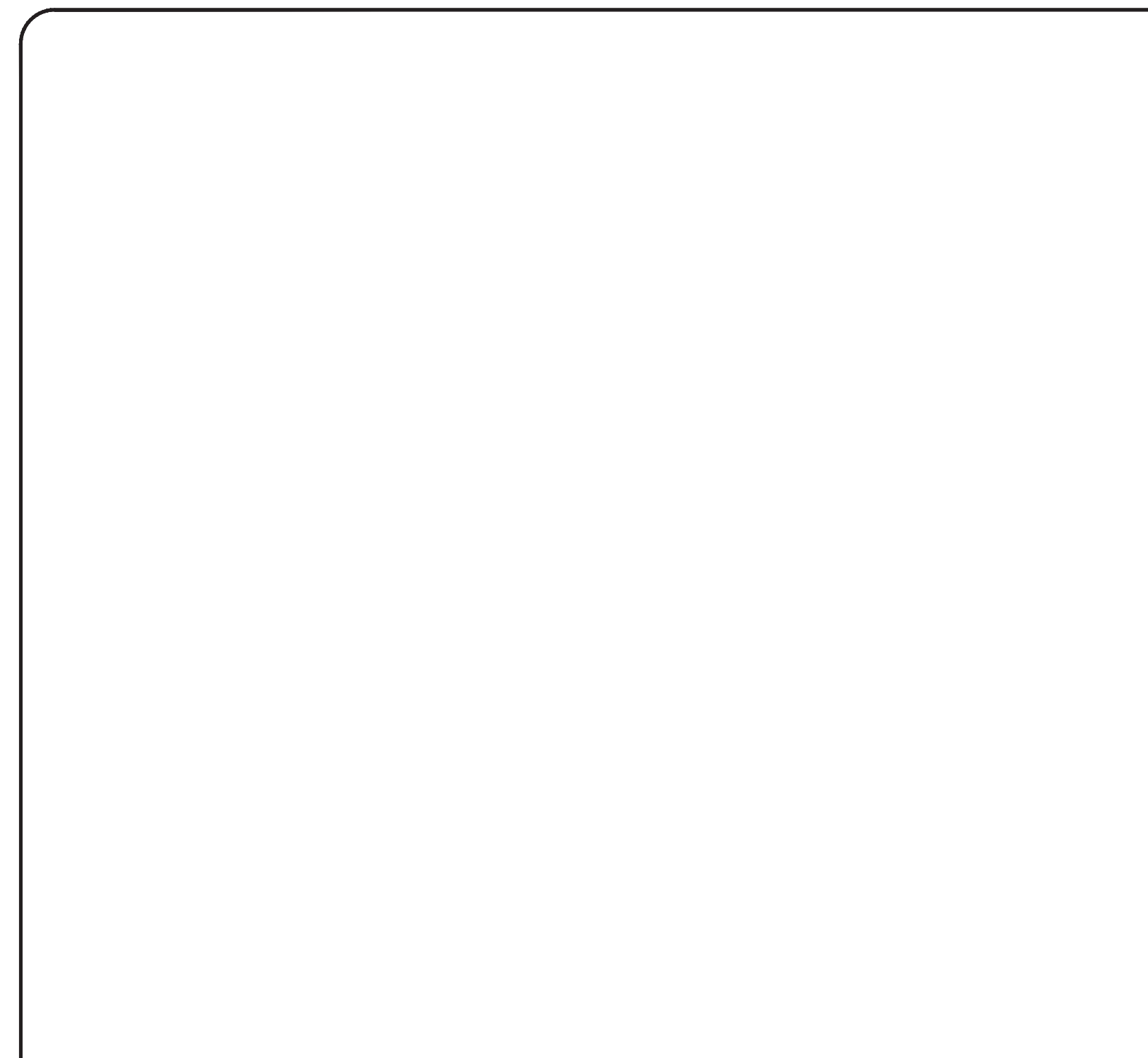
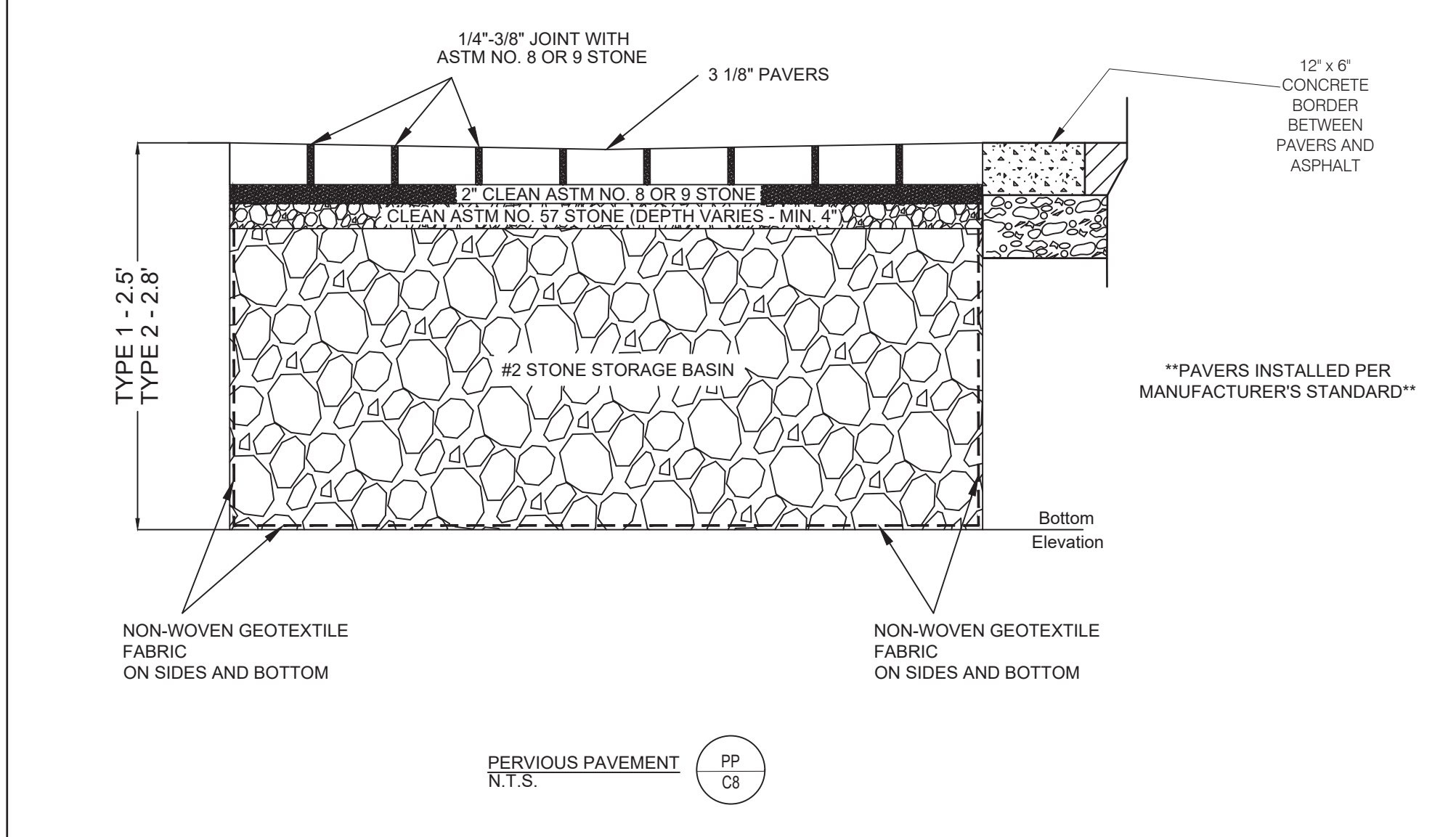
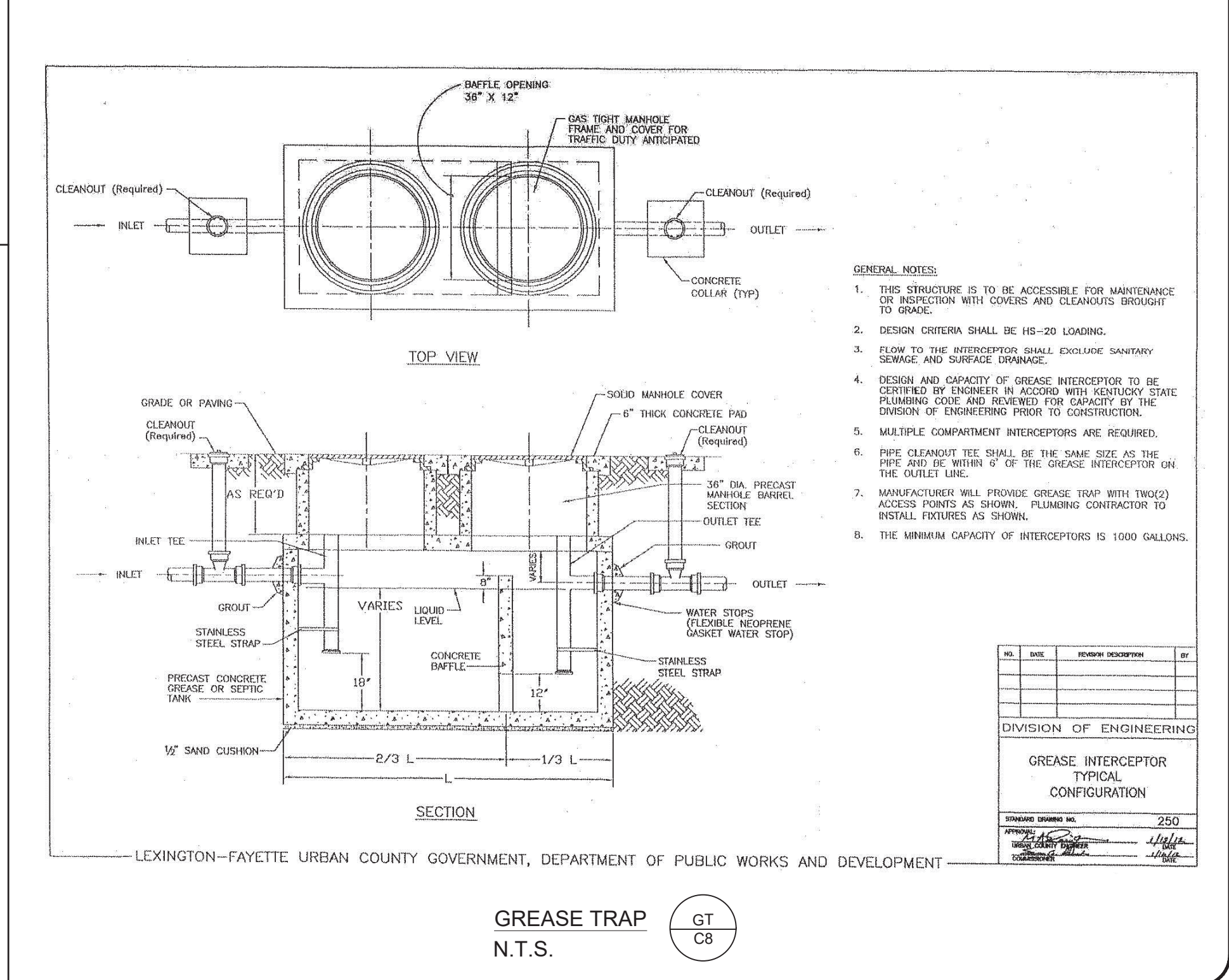
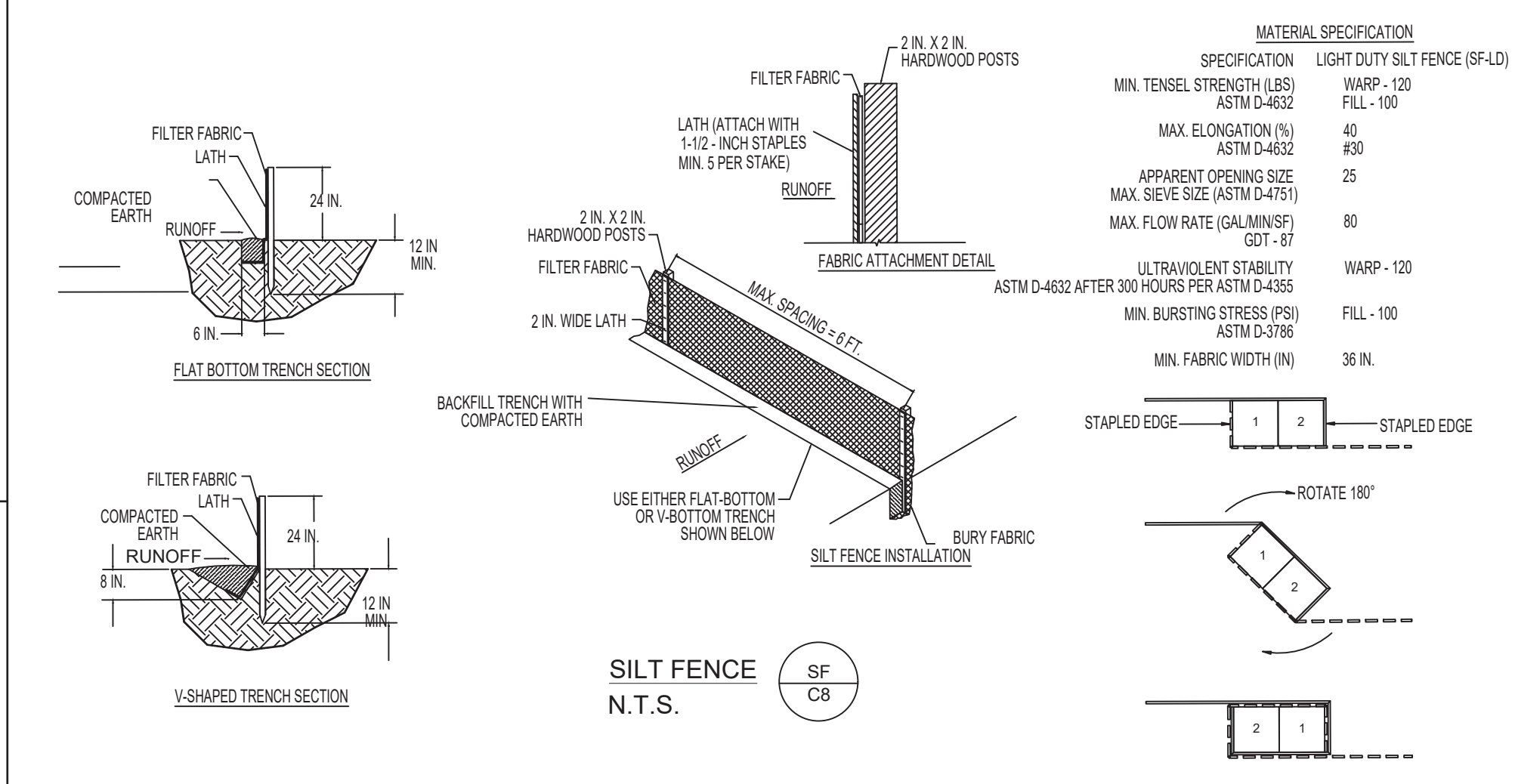
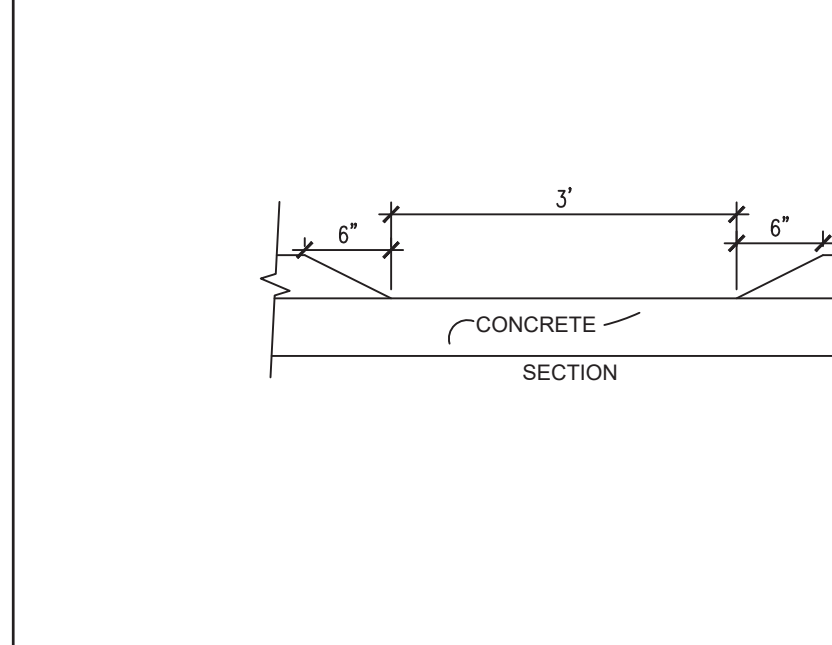
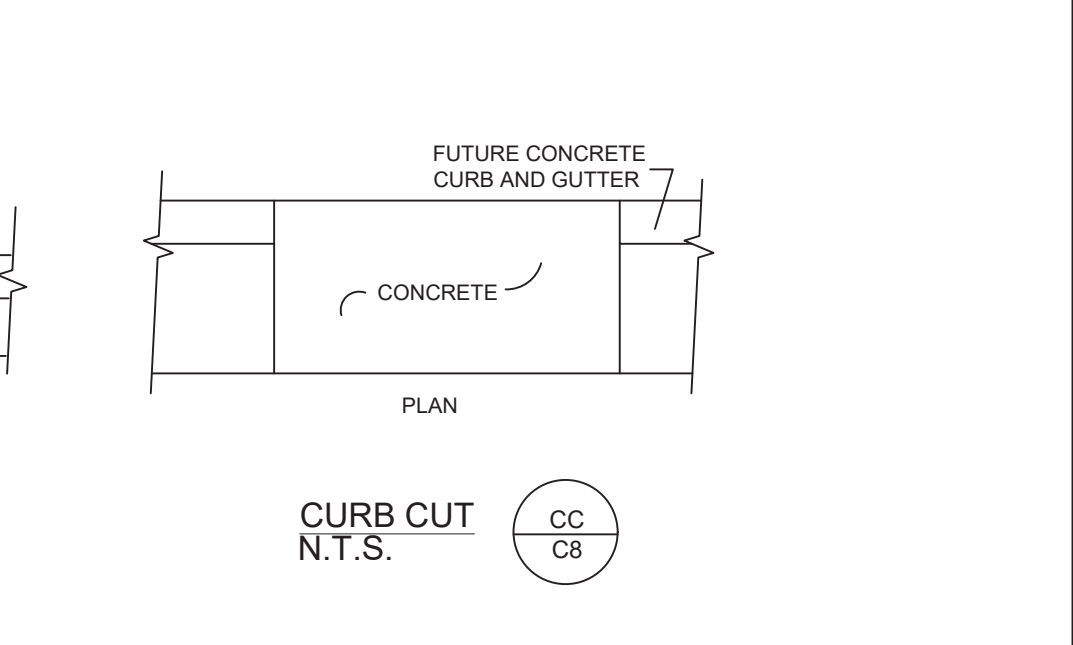
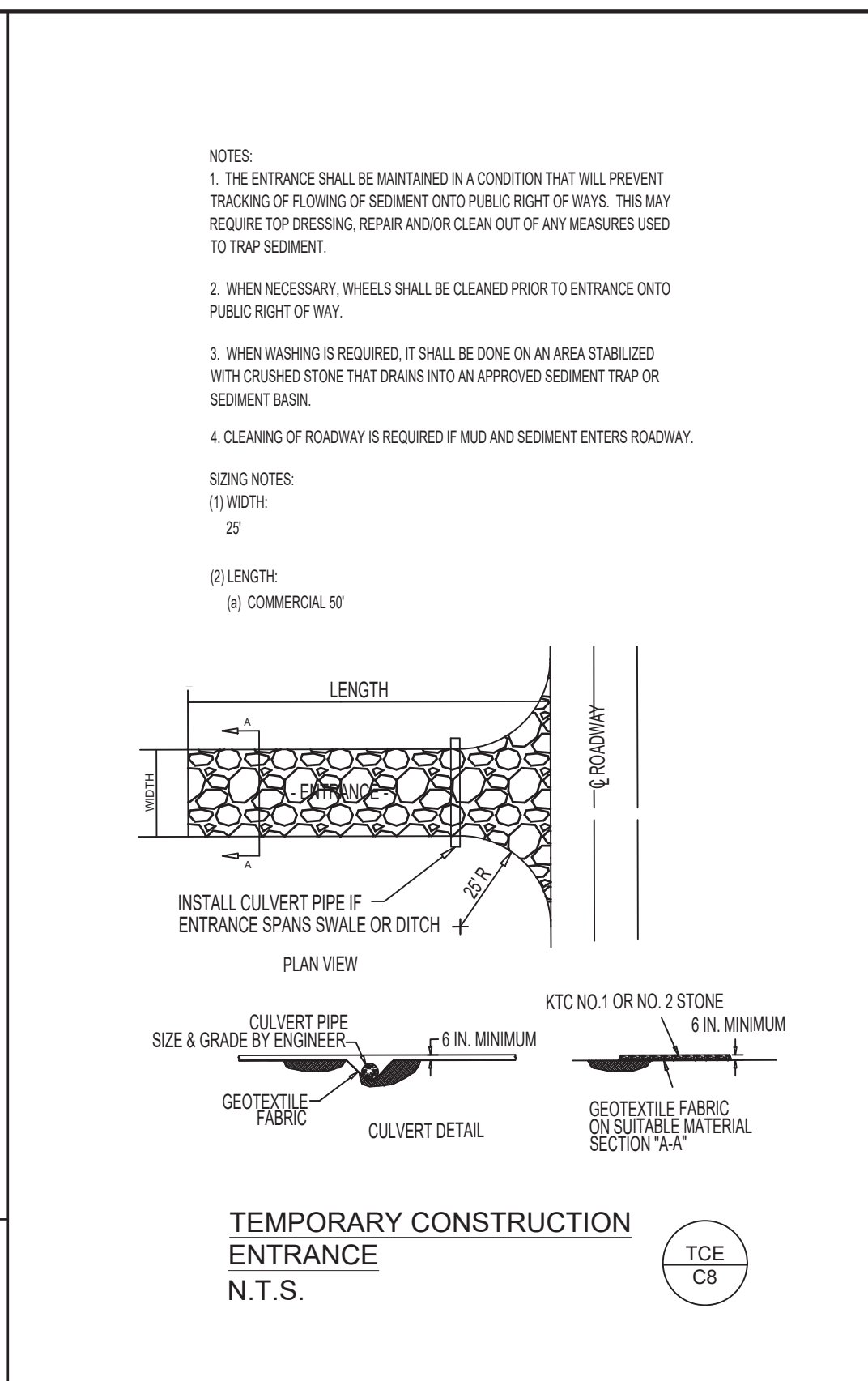
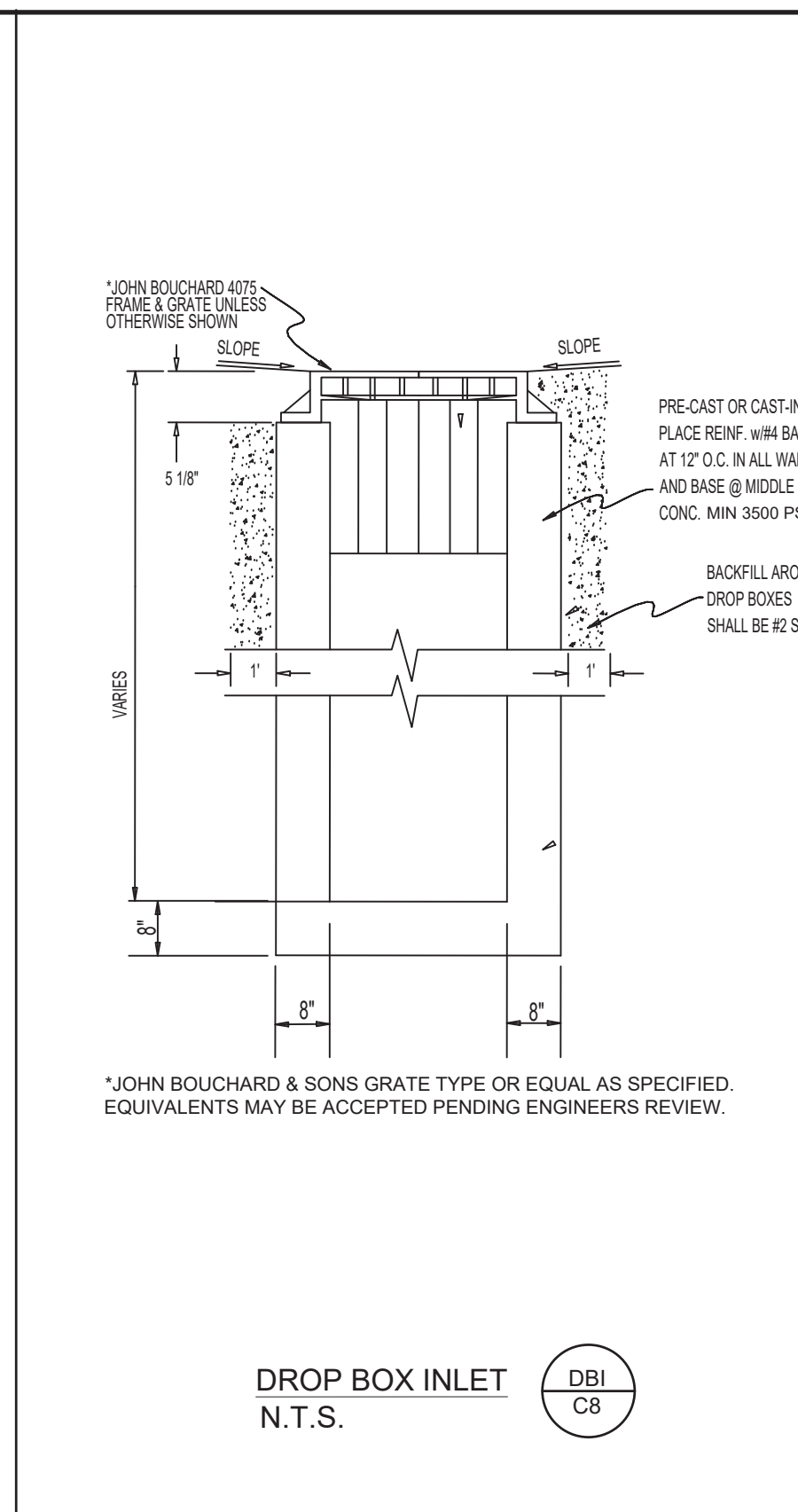
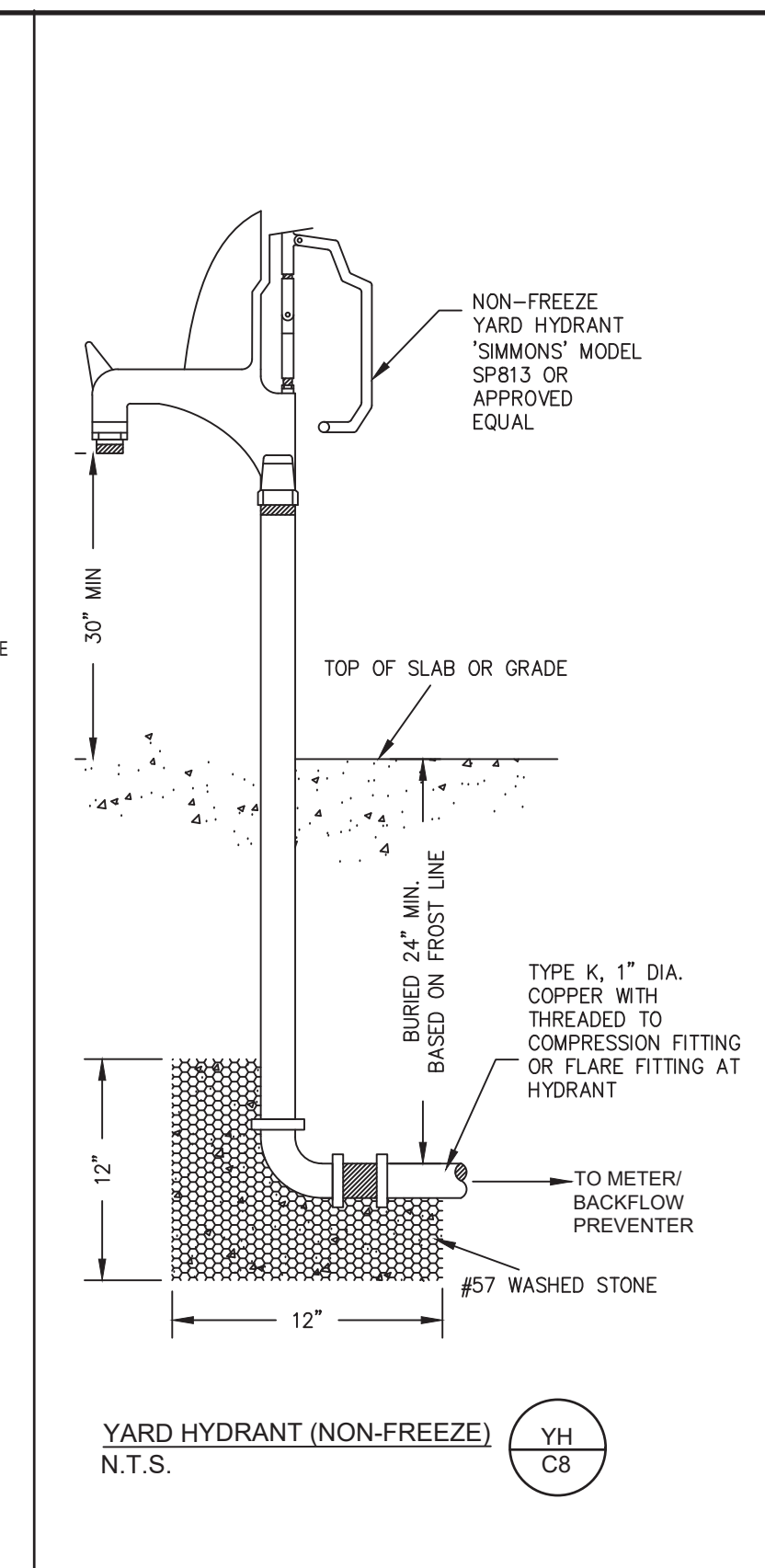
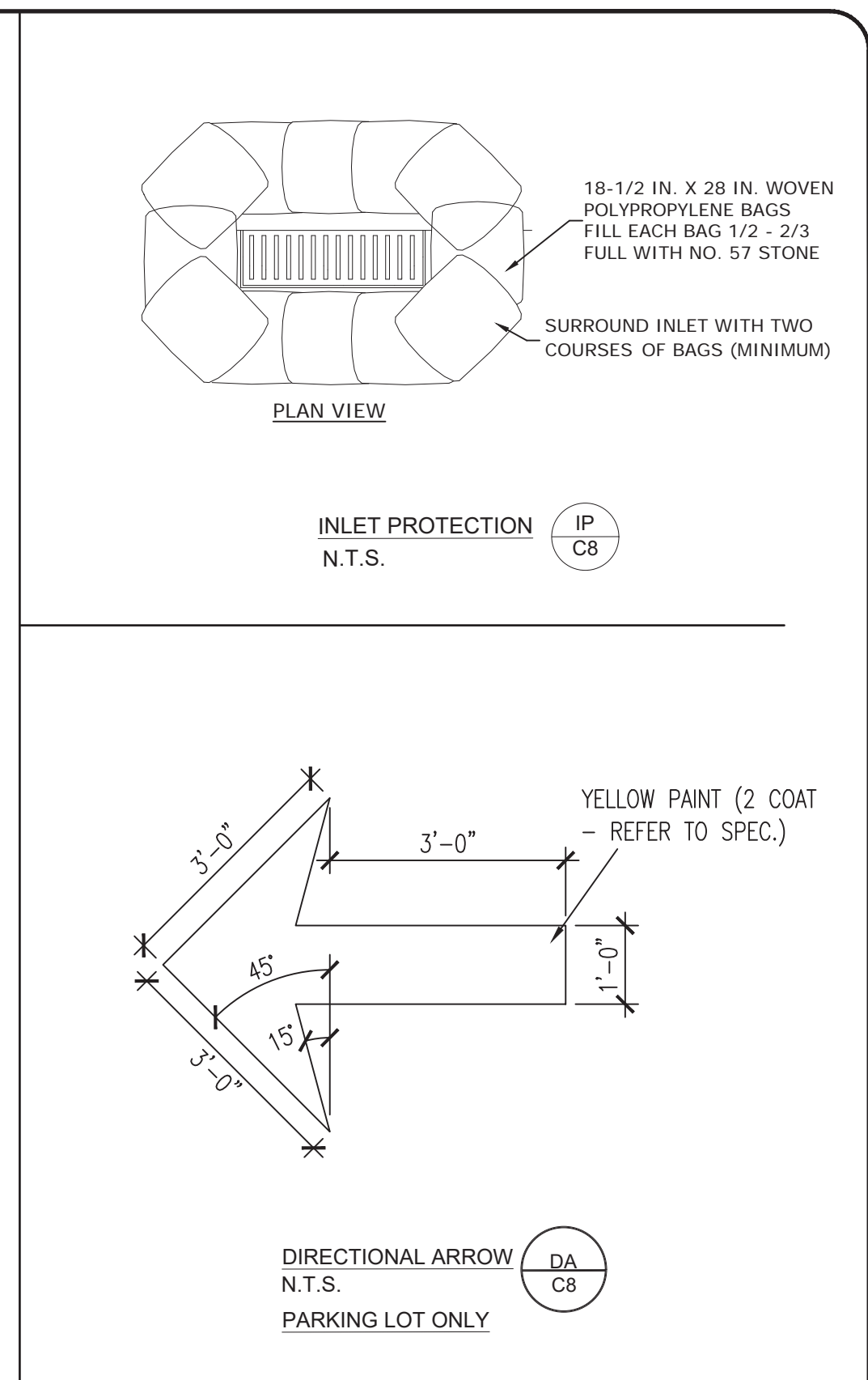


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**C8**  
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**L1**  
LANDSCAPE PLAN

**LANDSCAPE NOTES:**

- PLANT MATERIALS SHALL CONFORM IN SIZE AND GRADE TO AMERICAN STANDARDS FOR NURSERY STOCK. PLANT MATERIALS SHALL BE OF STANDARD QUALITY TRUE TO NAME AND TYPE, AND FIRST CLASS REPRESENTATIVES OF THEIR SPECIES OR VARIETY. PLANTS SHALL BE CAREFULLY LABELED AND SIZES NOTED. RIGHT IS RESERVED TO REJECT PLANTS CONSIDERED AS UNSATISFACTORY. REJECTED PLANTS SHALL BE REMOVED FROM SITE. PLANTS SHOULD NOT BE PRUNED PRIOR TO DELIVERY. HEADING-BACK PLANTS TO MEET SIZES INDICATED IN DRAWINGS SCHEDULE WILL NOT BE PERMITTED.
- PLANTS & TREES
  - CONTRACTOR SHALL STAKE THE LOCATION OF EACH TREE AND SHRUB IN ACCORDANCE WITH THE LOCATIONS SHOWN ON THE DRAWINGS. STAKING AND LAYOUT WORK SHALL BE DONE SUFFICIENTLY IN ADVANCE OF PLANTING OPERATION TO PERMIT THE LANDSCAPE DESIGNER TO CHECK, REVISE IF DESIRED, AND APPROVE THE LOCATIONS BEFORE DIGGING OPERATIONS BEGIN.
  - EXCAVATE PLANTING BEDS AND POCKETS TO A DEPTH REQUIRED FOR PLANTINGS.
  - ANY ROCK OR OTHER UNDERGROUND OBSTRUCTION SHALL BE REMOVED TO DEPTH NECESSARY TO PERMIT PLANTING ACCORDING TO THESE SPECIFICATIONS.
  - IN GENERAL, CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTED AREAS AFTER PLANTING AND IN DRY WEATHER USE ENOUGH WATER TO THOROUGHLY SOAK ALL TREE PITS BEFORE PLANTING. CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS IN ADVANCE OF START OF THE WORK TO INSURE THAT AN ADEQUATE SUPPLY OF WATER AND WATERING EQUIPMENT ARE AVAILABLE WHEN REQUIRED.
- MULCHING
  - MULCH TOP OF ROOT BALL AND SAUCER WITHIN 48 HOURS TO A MINIMUM DEPTH OF 2" AND TO A DEPTH NOT TO EXCEED 3".
  - ALL SHADE AND FLOWERING TREES SHALL BE MULCHED WITH THREE (3) INCHES THICK (SETTLED) AND COVERING AN AREA TWELVE (12) INCHES GREATER THAN THE DIAMETER OF PIT.
- PLANT MAINTENANCE
  - MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE FOR 90 DAYS AFTER THE LAST PLANT HAS BEEN INSTALLED.
  - ALL PLANTS SHALL BE KEPT IN A GROWING, HEALTHY CONDITION BY WATERING, PRUNING, SHEARING, SPRAYING, TIGHTENING OF GUYS, STRAIGHTENING OF PLANTS WHICH LEAN OR SAG, LIFTING PLANTS WHICH DEVELOP MORE THAN NORMAL SETTLEMENT, WEEDING, AND BY ANY OTHER NECESSARY OPERATION OF MAINTENANCE. KEEP ALL PLANTING AREAS FREE OF WEEDS AND UNDESIRABLE GRASSES.
  - DURING THE MAINTENANCE PERIOD, PLANTS IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION, SHALL BE REMOVED AND REPLACED IMMEDIATELY USING SPECIFIED MATERIAL.
- ACCEPTANCE AND GUARANTEE
  - ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR WITHOUT SATISFACTORY GROWTH, AS DETERMINED BY THE LANDSCAPE ARCHITECT, SHALL BE REMOVED AND REPLACED IN NEXT SPECIFIED PLANTING SEASON. ANY REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED AND REPLANTED IN SAME LOCATION FROM WHICH DEAD PLANT WAS REMOVED AND SHALL BE REPLACED AT NO ADDITIONAL COST.
  - ALL PLANT MATERIAL SHALL HAVE A ONE YEAR WARRANTY FOR REPLACEMENT.
- DURING THE BIDDING PROCESS, NO PLANTS MAY BE SUBSTITUTED FOR A DIFFERENT PLANT. THE PLAN MUST BE BID AS DRAWN.
- THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO COME BACK AFTER ONE YEAR OF ACCEPTANCE OF THE PLANTING TO REMOVE ANY STAKES OR GUY WIRES THAT MAY HAVE BEEN USED.
- ANY DISCREPANCY BETWEEN THE PLANTING PLAN AND THE PLANT SCHEDULE SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND THE QUANTITIES SHOWN ON THE PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE.
- THE OWNER RESERVES THE RIGHT TO ALTER THE PLANTING PLAN AS SHOWN IN THE AREA OF THE FOUNDATION.
- LANDSCAPE PLAN MUST COMPLY WITH ARTICLE 18 OF THE LFCUG ZONING ORDINANCE.

MULCH: ALL SHRUBS THAT ARE SHOWN IN GROUPINGS, SHALL BE MULCHED IN A PLANT BED WITH SHREDDED HARDWOOD MULCH TO A MINIMUM OF 2" AND NOT GREATER THAN 3" IN DEPTH. IN AREAS OF STEEP SLOPES A FINE GRADE (NEARLY INVISIBLE) PLASTIC NETTING MAY BE USED TO STABILIZE THE MULCH BED.

ANNUALS AND PERENNIALS: ANY DESIRED ANNUALS AND PERENNIALS MAY BE DETERMINED BETWEEN THE PROPERTY OWNER AND THE LANDSCAPE CONTRACTOR FOR DESIRED COLOR PALETTE.

**TOTAL VUA:**  
REQUIRED INTERIOR LANDSCAPING:  
PROVIDED INTERIOR LANDSCAPING:

**INTERIOR TREES REQUIRED:**  
INTERIOR TREE PROVIDED:

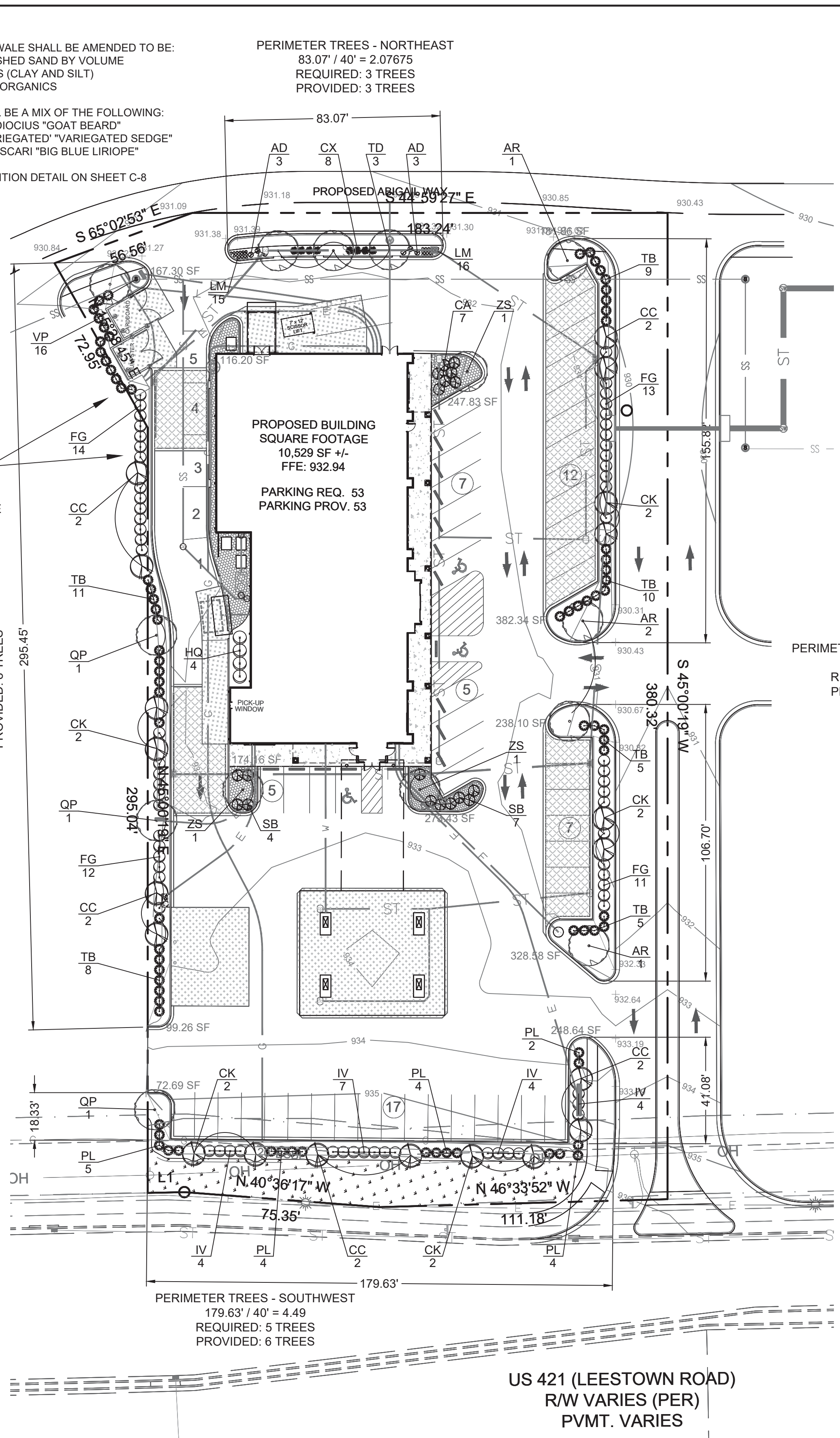
39,657.61 SF	1,982.88 SF (5%)	2,530.39 SF (6.4%)
PERIMETER TREES	REQ'D	PRO
NORTHEAST	3	3
NORTHWEST	8	8
SOUTHEAST	8	8
SOUTHWEST	5	6

**PERIMETER TREES - NORTHEAST**  
83.07' / 40' = 2.07675  
REQUIRED: 3 TREES  
PROVIDED: 3 TREES

**PERIMETER TREES - NORTHWEST**  
313.78' / 40' = 7.8445  
REQUIRED: 8 TREES  
PROVIDED: 8 TREES

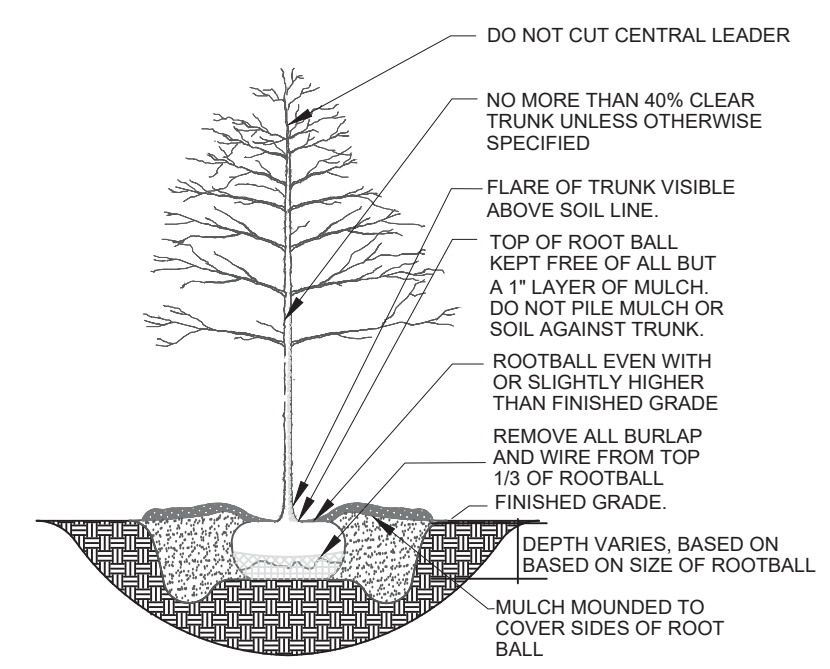
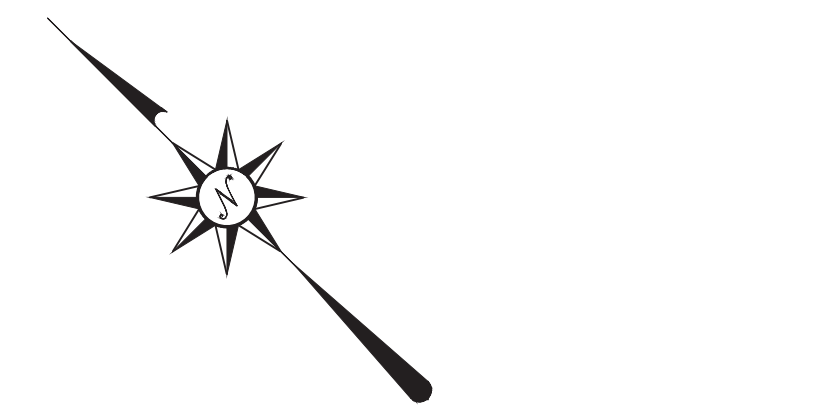
**PERIMETER TREES - SOUTHWEST**  
179.63' / 40' = 4.49  
REQUIRED: 5 TREES  
PROVIDED: 6 TREES

**PERIMETER TREES - SOUTHEAST**  
303.60' / 40' = 7.59  
REQUIRED: 8 TREES  
PROVIDED: 8 TREES

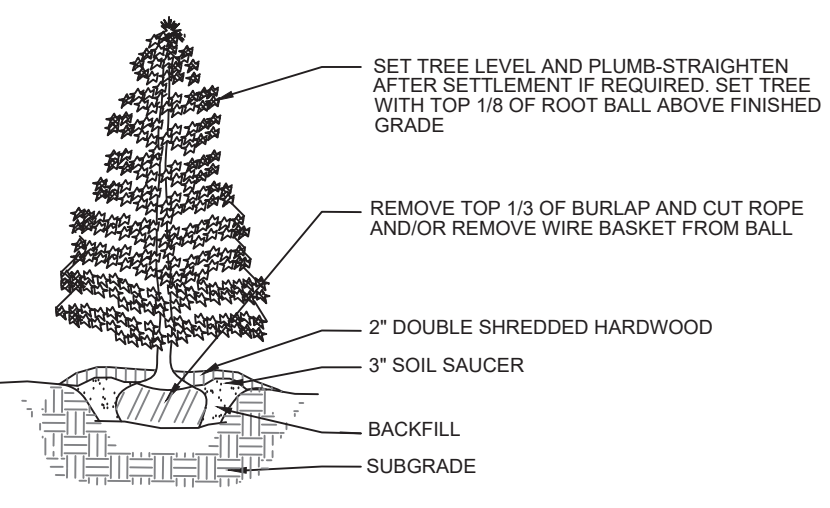


- BIO SWALE:**
- SOIL IN BIO SWALE SHALL BE AMENDED TO BE:
    - 85-99% WASHED SAND BY VOLUME
    - 8-12% FINES (CLAY AND SILT)
    - 3-5% AGED ORGANICS
  - PLANTS SHALL BE A MIX OF THE FOLLOWING:
    - ARUNCUS DIOCIUS "GOAT BEARD"
    - CAREX VARIEGATED "VARIEGATED SEDGE"
    - LIRIOPE MUSCARI "BIG BLUE LIRIOPE"
  - SEE BIORETENTION DETAIL ON SHEET C-8

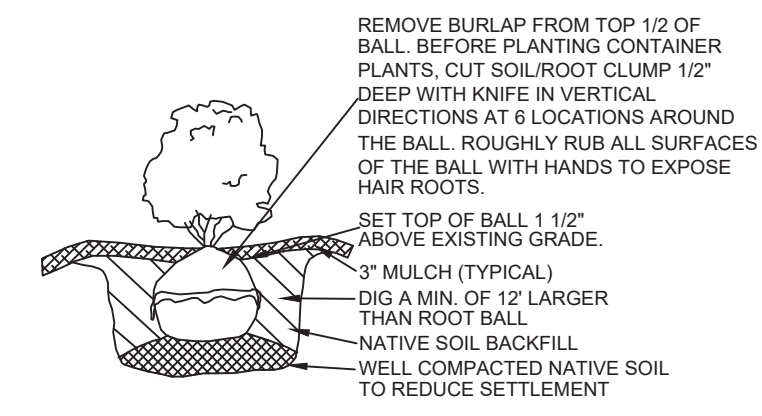
**NOTE:**  
IF THE ADJACENT PROPERTY IS SOLD, THE PARKING LOT SCREENING FOR THIS SECTION MUST REMAIN IN PLACE OR BE PROVIDED TO STAY IN COMPLIANCE WITH ARTICLE 18 OF THE ZONING ORDINANCE.



TYPICAL PLANTING DETAIL - TREES  
NOT TO SCALE



TYPICAL PLANTING DETAIL - EVERGREEN TREES  
NOT TO SCALE



TYPICAL SHRUB PLANTING DETAIL  
NOT TO SCALE

**BENCHMARK DATA:**

**BENCHMARK 1**  
KYTC PUNCHED ALUMINUM CAP LOCATED IN THE SOUTHWEST PROPERTY LINE APPROX. 3.2' FROM THE EXISTING EDGE OF SIDEWALK. ELEV: 941.61

**BENCHMARK 2**  
1" IRON PIN W/ 1" PLASTIC CAP STAMPED "HARMON 3649" LOCATED APPROX. 2.0' FROM THE EXISTING EDGE OF PAVEMENT OF ABIGAIL WAY. ELEV: 927.95



AREA OF SOD: 289 SQUARE YARDS. SOD TO BE A LOCALLY GROWN TYPE TYPE FESCUE. SOD TO BE PLACED WITHIN 24 HOURS OF HARVEST.

AREA OF STONE MULCH: 16 CUBIC YARDS. 3-4" DEEP OVER NON-WOVEN 4 OZ WEED BARRIER. NATURAL BROWNS IN COLOR.

**PLANT SCHEDULE**

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
<b>TREES</b>						
AR	4	ACER RUBRUM 'RED SUNSET'	RED MAPLE	1 3/4" CAL	B&B	WELL BRANCHED
CC	10	CERCIS CANADENSIS 'FOREST PANSY'	EASTERN REDBUD	5'-6" HT.	B&B	WELL BRANCHED
CX	10	CORNUS KOUSA	KOUSA DOGWOOD	5'-6" HT.	B&B	WELL BRANCHED
QP	3	QUERCUS PHELLOS	WILLOW OAK	1 3/4" CAL	B&B	WELL BRANCHED
TD	3	TAXODIUM DISTICHUM 'SHAWNEE BRAVE'	COMMON BALD CYPRESS	1 3/4" CAL	B&B	WELL BRANCHED
ZS	3	ZELKOVA SERRATA 'VILLAGE GREEN'	JAPANESE ZELKOVA	1 3/4" CAL	B&B	WELL BRANCHED
<b>SHRUBS</b>						
CA	7	CALAMAGROSTIS ACUTIFLORA 'KARL FORESTER'	FEATHER REED GRASS			5 GALLON CLUMP
FG	50	FOTHERGILLA GARDENII 'JANE PLATT'	DWARF FOTHERGILLA	24" HT.	CONT. B&B	WELL BRANCHED
HQ	4	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	OAKLEAF HYDRANGEA	24" HT.	CONT. B&B	WELL BRANCHED
IV	19	ILEX VERTICILLATA 'RED SPRITE'	COMMON WINTERBERRY	24" HT.	CONT. B&B	WELL BRANCHED
PL	19	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	CHERRY LAUREL	24" HT.	CONT. B&B	WELL BRANCHED
SB	11	SPIRAEA X BUNALDA 'CRISPA'	BUNALD SPIREA	24" HT.	CONT. B&B	WELL BRANCHED
TB	48	TAXUS BACCATA 'REPANDENS'	REPANDENS ENGLISH YEW	24" HT.	CONT. B&B	WELL BRANCHED
VP	16	VIBURNUM X PRAGENSE	PRAGUE VIBURNUM	36" HT.	CONT. B&B	WELL BRANCHED
<b>GROUND COVER</b>						
AD	6	ARUNCUS DIOCIUS	GOAT BEARD	1 GAL.		3' O.C.
CX	8	CAREX VARIEGATED	SEDSGE	1 GAL.		3' O.C.
LM	31	LIRIOPE MUSCARI 'BIG BLUE'	LIRIOPE	1 QUART		12-14" O.C.



REVISIONS

**HOUCHENS INDUSTRIES**  
2656 ABIGAIL WAY  
LEXINGTON, KY 40511



**ACES**  
ARNOLD CONSULTING  
ENGINEERING SERVICES, INC.  
P.O. BOX 1338  
BOWLING GREEN, KY 42101  
PHONE (270) 780-3445

JOB NUMBER: L7037  
DATE: 12-04-2017  
SCALE: 1" = 30'  
DRAWN: J. BEGLEY  
CHECKED: J. ARNOLD  
FILE PATH:  
Z:\SITE\VIS1-SITE LIGHTING PLAN



**SL1**  
SITE LIGHTING

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	4	Lithonia Lighting	TWH LED 20C 1000 50K T3M MVOLT	TWH LED WITH 20 LEDs @1000mA, 5000K AND TYPE 3 MEDIUM OPTICS	LED	1	TWH_LED_20C_1000_50K_T3M_MVOLT.ies	7027	0.72	72
	C	2	Lithonia Lighting	DSX2 LED 100C 700 50K T3M MVOLT HS	DSX2 LED WITH 100 LEDs @700mA, 5000K, TYPE 3 MEDIUM OPTICS, WITH HOUSE SIDE SHIELD	LED	1	DSX2_LED_100C_700_50K_T3M_MVOLT_HS.ies	21417.66	0.72	232
	D	2	Lithonia Lighting	DSX2 LED 100C 1000 50K T3M MVOLT HS	DSX2 LED WITH 100 LEDs @1000mA, 5000K, TYPE 3 MEDIUM OPTICS, WITH HOUSE SIDE SHIELD	LED	1	DSX2_LED_100C_1000_50K_T3M_MVOLT_HS.ies	29443	0.72	360

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Gas Canopy	X	8.7 fc	11.6 fc	6.0 fc	1.9:1	1.5:1
Houchens - Leestown Rd	+	1.6 fc	11.6 fc	0.0 fc	N/A	N/A
Parking Lot	+	2.2 fc	6.8 fc	0.1 fc	68.0:1	22.0:1

Description	# Luminaires	Total Watts	Area	Density
Power Density Zone #	26	2349.2 W	114951.1 ft²	0.0 W/ft²

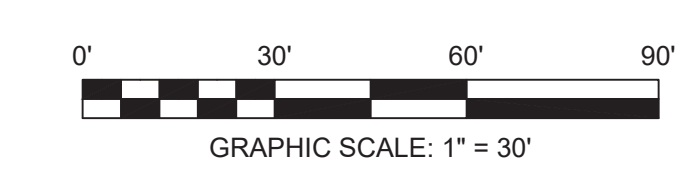
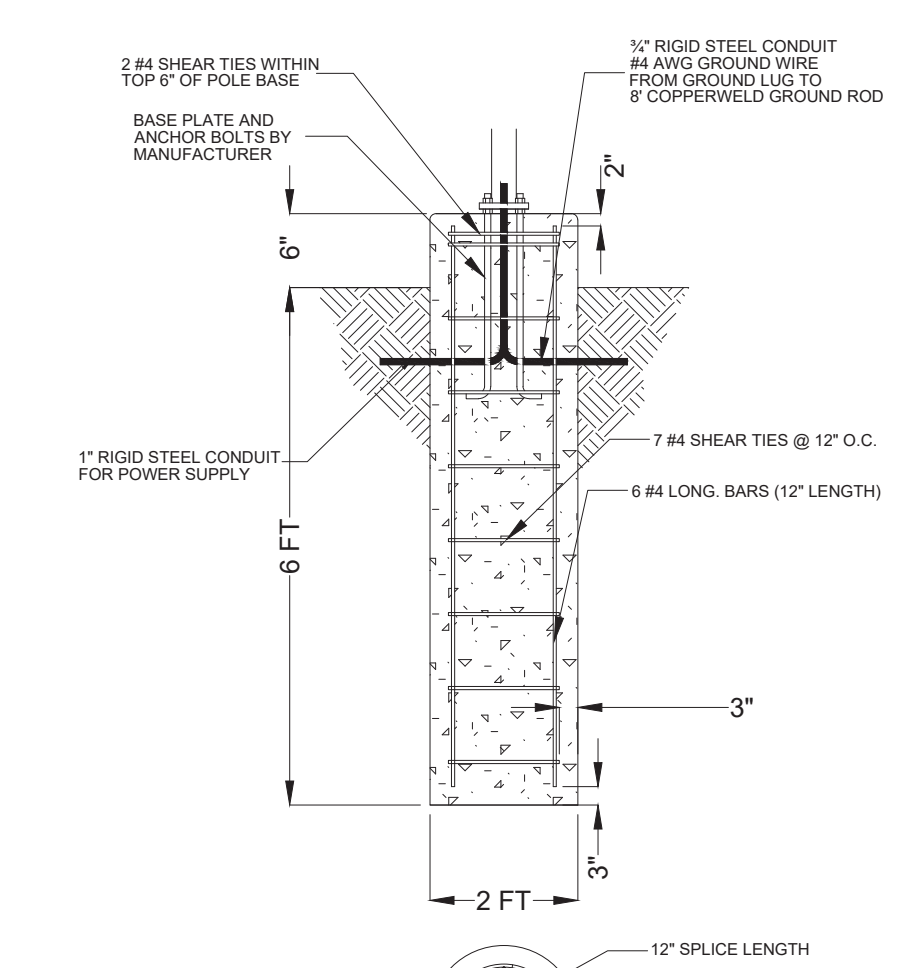
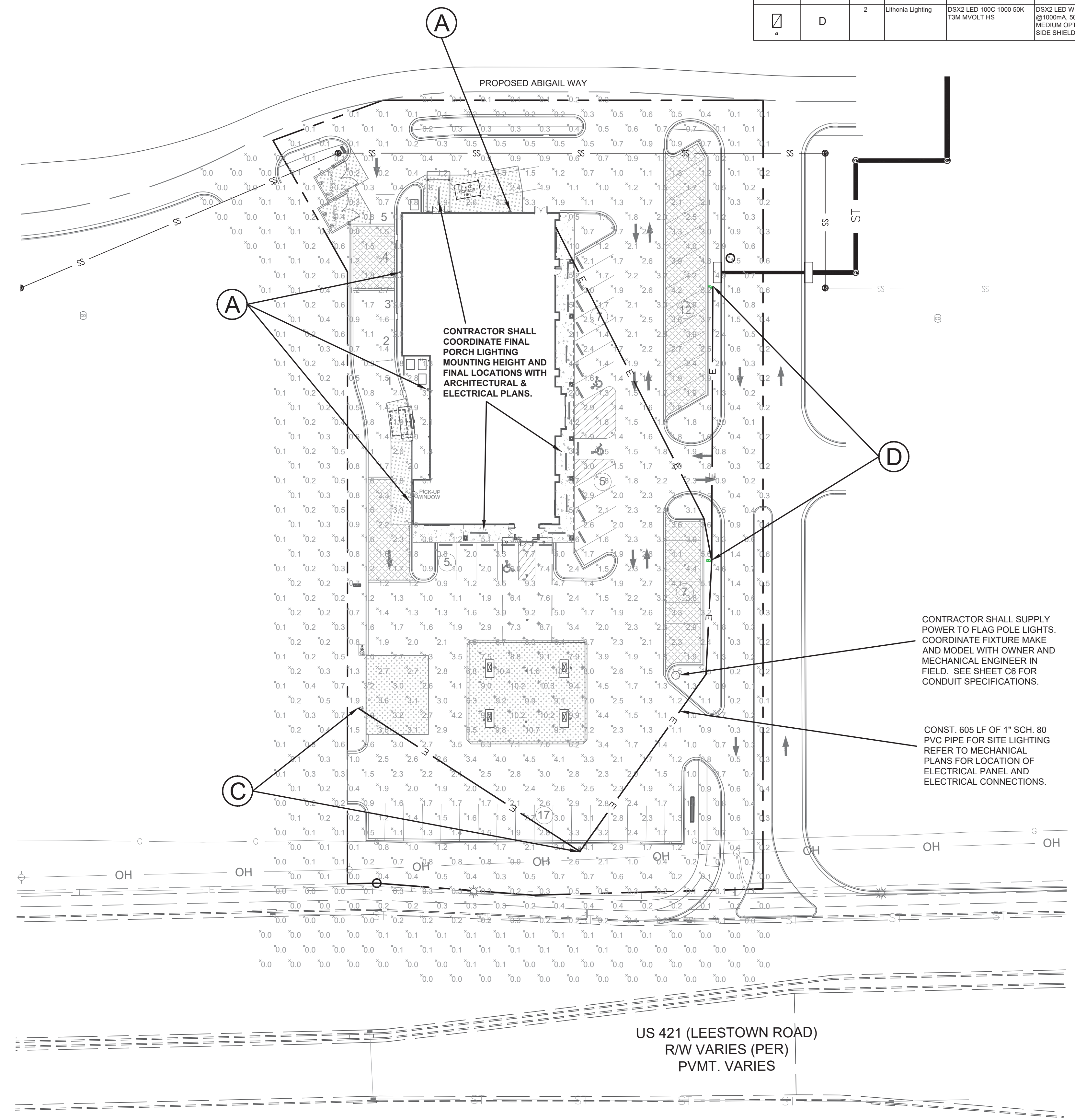
- NOTES:
1. READINGS SHOWN ARE IN UNITS OF MAINTAIN FOOTCANDLES.
  2. LITHONIA, & CREE LIGHTING FIXTURES USED IN MODEL.
  3. ALL FIXTURES TO BE AS SPECIFIED OR EQUIVALENT PER OWNER.
  4. READINGS TAKEN AT GRADE.
  5. FIXTURE SPACING AS SHOWN
  6. L.L.F. CALCULATED AT 0.72
  7. THE CONTRACTOR SHALL VERIFY TOTAL LINEAR FEET OF CONDUIT AND WIRE GAUGE SIZE IS ADEQUATE.
  8. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH MECHANICAL ENGINEER TO ENSURE ELECTRICAL PANEL LOADING REQUIREMENTS ARE MET AND NOT EXCEEDED.
  9. CONTRACTOR SHALL COORDINATE WITH MECHANICAL PLANS FOR CONNECTION TO ELECTRICAL SERVICE PANEL
  10. CONTRACTOR SHALL VERIFY THAT ALL ELECTRICAL CONNECTIONS MEET LOCAL BUILDING CODES AND LOADING REQUIREMENTS
  11. CONTRACTOR SHALL PROVIDE POLES FOR POLE MOUNT FIXTURES PER LIGHTING MANUFACTURES RECOMMENDATIONS.

CONTRACTOR IS RESPONSIBLE FOR ALL PUBLIC UTILITY CONNECTIONS (ELECTRIC, WATER, GAS, TELECOM, SEWER) AS WELL AS PROVIDING ALL INFRASTRUCTURES REQUIRED BY UTILITY COMPANY

CONTRACTOR SHALL SUPPLY POWER TO FLAG POLE LIGHTS. COORDINATE FIXTURE MAKE AND MODEL WITH OWNER AND MECHANICAL ENGINEER IN FIELD. SEE SHEET C6 FOR CONDUIT SPECIFICATIONS.

CONST. 605 LF OF 1" SCH. 80 PVC PIPE FOR SITE LIGHTING REFER TO MECHANICAL PLANS FOR LOCATION OF ELECTRICAL PANEL AND ELECTRICAL CONNECTIONS.

CONTRACTOR SHALL COORDINATE FINAL PORCH LIGHTING MOUNTING HEIGHT AND FINAL LOCATIONS WITH ARCHITECTURAL & ELECTRICAL PLANS.



**BENCHMARK DATA:**

- BENCHMARK 1  
KYTC PUNCHED ALUMINUM CAP LOCATED IN THE SOUTHWEST PROPERTY LINE APPROX. 3.2' FROM THE EXISTING EDGE OF SIDEWALK. ELEV: 941.61
- BENCHMARK 2  
1" IRON PIN W/ 1" PLASTIC CAP STAMPED "HARMON 3649" LOCATED APPROX. 2.0' FROM THE EXISTING EDGE OF PAVEMENT OF ABIGAIL WAY. ELEV: 927.95

