

PROPERTY DESCRIPTION:

GENERAL INFORMATION:

PARCEL NOS.: 4714-23-301-010 AND 4714-23-304-080

ZONING: R4 (MULTIPLE-FAMILY RESIDENTIAL)

GROSS SITE AREAS: 0.79 AC (34,246 SQ FT) & 0.80 AC (34,725 SQ FT)

LEGAL DESCRIPTIONS - PROVIDED:

PROPERTY DESCRIPTION PER WARRANTY DEED DATED JULY 28, 2016, AS RECORDED IN INSTRUMENT NO. 2016R-024551, LIVINGSTON COUNTY RECORDS:

Lot 5, 6, 7 and 8, Block 8, Range 8, of Original Plat of the Village of Pinckney, Livingston County, Michigan, according to the recorded Plat thereof, as recorded in Liber 20, Page 64, Livingston County Records.

AND

That Part of Block 4, Range 1, of JW Hinchey Addition to the Village of Pinckney, Livingston County, Michigan, according to the recorded Plat thereof, as recorded in Liber 51D, Page 452, Livingston County Records; Beginning at the SE corner of Lot 8; thence South 86°10'13" West 263.02 feet; thence North 06°36'03" West 132.18 feet; thence North 86°10'13" East 263.02 feet; thence South 06°36'03" East 132.18 feet to the point of beginning, subject to easements and restrictions of record.

**PRELIMINARY AND FINAL SITE PLAN
FOR
GRANT'S PLACE APARTMENTS**

**551 HAMBURG STREET
PART OF SW QUARTER, SECTION 23
VILLAGE OF PINCKNEY, LIVINGSTON COUNTY, MI**



LOCATION MAP
SCALE: 1"=500'

SURFACE WATER & COUNTY DRAINS

WETLANDS	APPROXIMATELY 1,400 FT NORTHEAST & SOUTHWEST
WETLANDS	APPROXIMATELY 1,500 FT SOUTH (ASSOCIATED WITH HONEY CREEK)
STREAM	APPROXIMATELY 1,800 FT WEST, BRANCH OF HONEY CREEK
STREAM	APPROXIMATELY 1,850 FT SOUTH, HONEY CREEK MAIN CHANNEL

Land Use Summary		
must be included on the O&M Plan Sheet for all site plans		
Characteristic	Existing Conditions	Proposed Conditions
Total Development Area (ac)	1.59 AC	1.59 AC
Impervious Area (ac) [GRAVEL, PAVEMENT, BLDGS.]	0.62 AC	0.55 AC
Total Pervious Area (ac)	0.97 AC	1.04 AC
Pervious Area Breakdown by Cover Type		
Meadow/fallow/natural areas (non-cultivated)	0.00 AC	0.00 AC
Predominant NRCS Soil Type (A, B, C, or D)	B	B
Improved areas (turf grass, landscape, row crops)	0.97 AC	1.04 AC
Predominant NRCS Soil Type (A, B, C, or D)	B	B
Wooded Areas	0.00 AC	0.00 AC
Predominant NRCS Soil Type (A, B, C, or D)	B	B
CPVC Volume Calculated (cubic feet)	NA*	
CPVC Volume Provided (cubic feet)	NA*	
CPVC Volume Provided (cubic feet)	NA*	

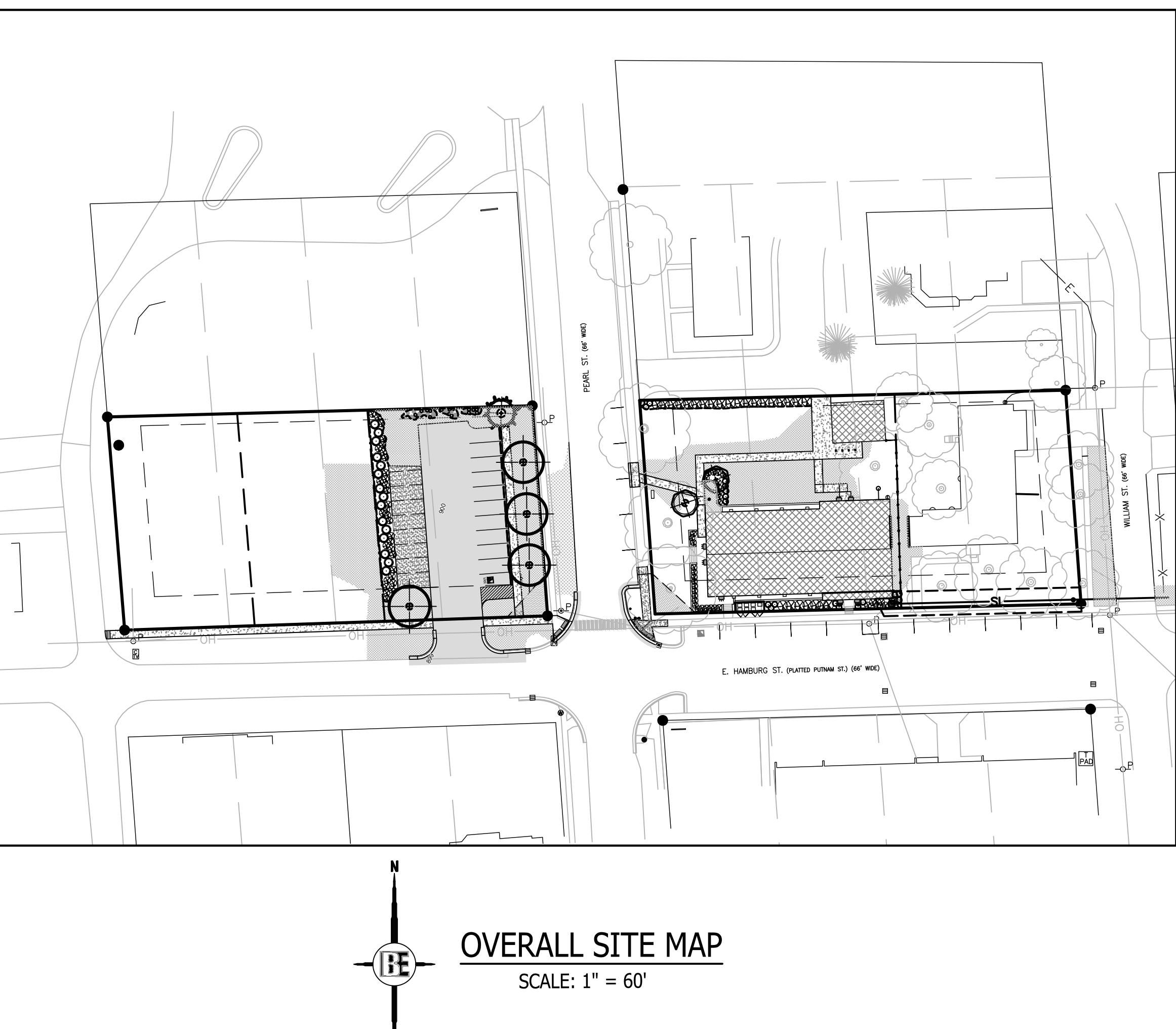
The Professional Engineer who signs and seals this site plan certifies that the values in this table reflect the WRC stormwater calculations required for this development and that geotechnical investigations were performed that provide conclusive documentation that demonstrates whether infiltration (i.e., CPVC Volume Control) is practicable.

Notes:

- The Professional Engineer Certification Statement (see above) must be included with the Land Use Summary Table.
- Areas to be shown to the nearest 0.01 acre
- Predominant soil type shall be the soil type with the largest percentage coverage over the designated land use (e.g., 70% Soil Type B and 30% Soil Type C shall be listed in the table as "Soil Type B")
- USDA soil types cannot be used to determine site suitability for infiltration and meeting the CPVC volume standard; direct infiltration testing will be required to determine site suitability for infiltration

Procedures and Design Criteria for Stormwater Management Systems, Appendix J.

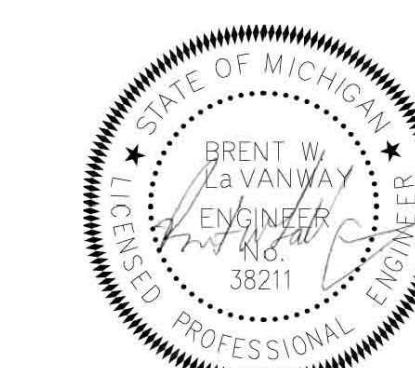
* EXISTING DEVELOPED SITE, RENOVATING ONLY WITH NET REDUCTION IN IMPERVIOUS SURFACES. SITE TO CONTINUE TO UTILIZE LAWN OVERLAND FLOW TO MUNICIPAL STORM SYSTEM



OVERALL SITE MAP

SCALE: 1" = 60'

PERMIT / REVIEW	DATE SUBMITTED	STATUS	DATE ISSUED
RE-ZONING	N.A.	EXISTING DRIVEWAYS	
LIVINGSTON COUNTY ROAD COMMISSION SIGHT DISTANCE REVIEW	N.A.	-	
VILLAGE OF PINCKNEY SPECIAL LANDUSE APPROVALS	N.A.	-	
PUTNAM TOWNSHIP FIRE MARSHALL REVIEW	TBD	-	
VILLAGE OF PINCKNEY DEPT OF PUBLIC WORKS	TBD	-	
VILLAGE OF PINCKNEY PRELIMINARY SITE PLAN	12-3-25	-	
VARIANCES AND TECHNICAL WAIVERS	3-7-22	APPROVED 3-28-22	STILL VALID 2025
LIVINGSTON COUNTY DRAIN COMMISSIONER - DRAINAGE REVIEW	8-31-22	N.A. DECREASE IN IMPERVIOUS - SEE 8-31-22 EMAIL	
LIVINGSTON COUNTY ROAD COMMISSION COMMERCIAL DRIVEWAY	N.A.	EXISTING DRIVEWAYS - NEW SIDEWALK ONLY -	
LIVINGSTON COUNTY DRAIN COMMISSIONER SOIL EROSION CONTROL	TBD	TO FOLLOW CONST. PLAN APPROVAL	-
LIVINGSTON COUNTY BUILDING DEPARTMENT BUILDING PERMIT	TBD	TO SUBMIT AFTER VILLAGE APPROVAL	-
LIVINGSTON COUNTY ROAD COMMISSION WORK IN R.O.W. PERMIT	TBD	TO SUBMIT AFTER VILLAGE APPROVAL	-



FOR SITE PLAN APPROVAL ONLY!
NOT FOR CONSTRUCTION

C1	
1 PC	VILLAGE PLANNER REVIEW COMMENTS
NO BY	REVISION
12/16/25	DATE
25-393	JOB NO:

GENERAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
- A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
- IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND SPECIFICATIONS.
- PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE, ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED.
- ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A. REQUIREMENTS. WHERE EXISTING CONDITIONS AND/OR THE REQUIREMENTS OF THE PLANS WILL RESULT IN FINISHED CONDITIONS THAT DO NOT MEET ADA REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER PRIOR TO WORK COMMENCING.
- ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHT-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
- THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
- THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
- NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
- DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
- IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
- NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
- TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
- ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL ITEMS REQUIRED FOR CONSTRUCTION OF THE PROJECT ARE INCLUDED IN THE CONTRACT. ANY ITEMS NOT SPECIFICALLY DESIGNATED IN THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF APPROVED CONSTRUCTION PLANS, WITH THE LATEST REVISION DATE, ON SITE PRIOR TO THE START OF CONSTRUCTION. IN THE EVENT OF ANY QUESTIONS PERTAINING TO THE INTENT OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER FOR A FINAL DETERMINATION FROM THE DESIGN ENGINEER.
- THE CONTRACTOR, NOT THE OWNER OR THE ENGINEER, ARE RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SAFE EXECUTION OF THE PROJECT SCOPE IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING CONSTRUCTION STAKING AS NECESSARY. CONTRACTOR TO NOTIFY CONSTRUCTION SURVEYOR OF REPLACEMENT STAKES NEEDED WHICH SHALL BE AT THE CONTRACTORS EXPENSE.
- THE OWNER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING FRANCHISE UTILITY SERVICES (CABLE, ELECTRIC, GAS, ETC.) OWNER AND/OR CONTRACTOR SHALL WORK WITH UTILITY COMPANIES ON FURNISHING SITE UTILITY LAYOUTS AND PROVIDING CONDUIT CROSSINGS AS REQUIRED.
- DAMAGE TO ANY EXISTING UTILITIES OR INFRASTRUCTURE (INCLUDING PAVEMENT, CURB, SIDEWALK, ETC.) SHALL PROMPTLY BE REPLACED IN KIND AND SHALL BE AT THE CONTRACTORS EXPENSE.
- COORDINATION OF TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PER ALL CITY/TOWNSHIP/COUNTY REQUIREMENTS. COPIES OF ALL TEST REPORTS SHALL BE FURNISHED TO THE DESIGN ENGINEER.
- PRIOR TO THE START OF CONSTRUCTION, PROTECTION FENCING SHALL BE ERECTED AROUND THE TREE DRIPLINE OF ANY TREES INDICATED TO BE SAVED WITHIN THE LIMITS OF DISTURBANCE.
- THE CONTRACTOR SHALL MAINTAIN DRAINAGE OF THE PROJECT AREA AND ADJACENT AREAS. WHERE EXISTING DRAINAGE FACILITIES ARE IMPACTED/DISTURBED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ANY NECESSARY TEMPORARY DRAINAGE PROVISIONS.
- SOIL BORING LOGS ARE REPRESENTATIVE OF SPECIFIC POINTS ON THE PROJECT SITE, AND IF PROVIDED TO THE CONTRACTOR ARE FOR INFORMATIONAL PURPOSES ONLY.
- WHERE CITY/TOWNSHIP STANDARD CONSTRUCTION DETAILS/SPECIFICATIONS ARE PROVIDED AND ARE IN CONFLICT WITH NOTES AND SPECIFICATIONS HEREIN, THE CITY/TOWNSHIP STANDARD SHALL GOVERN.

ANY WATER CONSUMED FROM A VILLAGE OF PINCKNEY SOURCE FOR CONSTRUCTION PURPOSES MUST BE METERED AND PAID FOR BY THE PROPRIETOR. THE METER MUST BE ATTACHED TO A BACKFLOW PREVENTOR THAT HAS BEEN EITHER BORROWED FROM OR APPROVED BY THE VILLAGE.

INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE, AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

CONTRACTOR TO FOLLOW MANUFACTURER SPECS/RECOMMENDATIONS THAT SUPERCEDE PLANS

GENERAL GRADING & SESC NOTES

- THE CONTRACTOR SHALL HAVE IN PLACE ALL REQUIRED EROSION CONTROL METHODS AS INDICATED ON THE CONSTRUCTION PLANS AND AS REQUIRED BY GENERAL PRACTICE. SPECIFIC MEANS, METHODS AND SEQUENCES OF CONSTRUCTION MAY DICTATE ADDITIONAL SOIL EROSION CONTROL MEASURES BE NEEDED. THE CONTRACTOR SHALL COORDINATE WITH THE DESIGN ENGINEER ON THESE ANTICIPATED METHODS. ADDITIONAL SOIL EROSION CONTROL METHODS SHALL BE INCIDENTAL TO THE SCOPE OF WORK.
- ACTUAL FIELD CONDITIONS MAY DICTATE ADDITIONAL OR ALTERNATE SOIL EROSION CONTROL MEASURES BE UTILIZED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR FIELD CONDITIONS THAT WARRANT ADDITIONAL AND/OR ALTERNATE SESCS MEASURES TO BE UTILIZED.
- AT THE CLOSE OF EACH DAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL CONSTRUCTION OPERATIONS, MATERIALS, DEBRIS, ETC. ARE CONTAINED ON-SITE.
- AT THE CLOSE OF EACH WORKING DAY, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS AT THE FLOW LINE.
- ALL SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE PER MDIEGEL REGULATIONS AND BEST PRACTICES. ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR.
- THE SOIL EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE UNTIL SUCH A TIME THAT THE SITE IS DETERMINED TO BE ESTABLISHED WITH ACCEPTABLE AMOUNT OF VEGETATIVE GROUND COVER.
- ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT SHALL BE SODDED OR SEED AS SPECIFIED OR DIRECTED BY THE ENGINEER.
- AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTION TO 95% OF ITS UNIT WEIGHT.
- ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTION.
- ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
- ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).

ALSO REFER TO ADDITIONAL LIVINGSTON COUNTY SOIL EROSION REQUIREMENTS ON DETAIL SHEET C7

GENERAL LANDSCAPE SPECIFICATIONS:

- ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY. ALL STOCK SHALL BE NURSERY GROWN, CONFORMING TO ANSI Z60.2-2025 "AMERICAN STANDARD FOR NURSERY STOCK", AND IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. STOCK SHALL EXHIBIT NORMAL GROWTH HABIT AND BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS, OR DISFIGUREMENT. ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALED AND BURAPPED OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT, AND SECURELY WRAPPED AND BOUND.
- ALL PLANT BED MATERIALS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS, OTHER EXTRANEous OBJECTS, AND POOR SOILS TO A MINIMUM DEPTH OF 12-INCHES AND BACKFILLED TO GRADE WITH SPECIFIED PLANTING MIX (SEE BELOW).
- PLANTING MIXTURE SHALL CONSIST OF 5 PARTS TOPSOIL ON-SITE (AS APPROVED), 4 PARTS COARSE SAND, 1 PART SPAGHETTI PEAT MOSS (OR APPROVED COMPOST), AND 5 LBS OF SUPERPHOSPHATE FERTILIZER PER CU. YD. OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED FOR UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS, NOT OTHERWISE NOTED SHALL BE MULCHED WITH A 4-INCH LAYER OF SHREDDED HARDWOOD MULCH. EDGE OF MULCH BEDS AS SHOWN, DECIDUOUS TREES IN LAWN AREAS SHALL RECEIVE A 4-Ft DIAMETER CIRCLE OF MULCH AND CONIFER TREES 5-Ft (PLANTED CROWN OF TREE) UNLESS OTHERWISE NOTED.
- LANDSCAPE STONE SHALL BE INSTALLED WHERE NOTED OR INDICATED (HATCHED). STONE SHALL BE 3/4"-1 1/4" WASHED RIVER GRAVEL OR AS SELECTED AND SHALL BE INSTALLED TO A MINIMUM DEPTH OF 3-INCHES.
- ALL LANDSCAPE BEDS, UNLESS OTHERWISE NOTED SHALL BE INSTALLED OVER WEED BARRIER FABRIC - WATER PERMEABLE FILTRATION FABRIC OF NON-WOVEN POLYPROPYLENE OR POLYESTER FABRIC. FABRIC SHALL BE OF SUITABLE THICKNESS FOR APPLICATION.
- ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD OF TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT, DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL SPECIFICATIONS.
- EDGING SHALL BE PROVIDED FOR ALL LANDSCAPE BEDS NOT ADJACENT TO CONCRETE PAVEMENT. EDGING SHALL BE BLACK VINYL EDGING, 3 1/2"-16 INCH X 4-INCH. INSTALL PER MANUFACTURER'S INSTRUCTIONS, ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRRREGULARITIES.
- SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUEGRASS AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4-INCH AT TIME OF PLANTING, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10-INCHES BY 18-INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36-HOURS AFTER CUTTING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN-OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF 1 MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEDED AND MULCHED.

SEE BELOW FOR GENERAL LAWN SEED MIXTURE. SEE LANDSCAPE PLAN FOR SPECIAL STORMWATER BASIN MIX(ES) AS INDICATED.

SEED MIXTURE SHALL BE AS FOLLOWS:
KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES - ADELPHI, RUGBY, GLADE, OR PARADE) 30%
RUBY RED OR DAWSON RED FINE FESCUE 30%
ATLANTA RED FESCUE 20%
PENNINN PERENNIAL RYE 20%

THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 LBS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-0-10 ANALYSIS:

10% NITROGEN - MIN 25% FROM A UREA FORMALDEHYDE SOURCE
0% PHOSPHATE - SOURCE POTASSIUM SULFATE OR POTASSIUM NITRATE

THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 LBS PER 1000 SQ FT OF BULK FERTILIZER.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL BE RE-SEEDED AND SUCH RE-SEEDED SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO SEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR.

13. ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 6-INCH LAYER OF CLEAN, FRIBLABLE TOPSOIL. THE SOIL SHALL BE DISCERN AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.

14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.

15. DECORATIVE LANDSCAPE BOULDERS SHALL BE OF FIELD STONE TYPE GENERALLY CONSISTING OF METAMORPHIC QUARTZITE OR GLACIAL TILL STONE SUITABLE FOR LANDSCAPE APPLICATION. PROVIDE A MINIMUM OF 3 SIZES RANGING FROM A MINIMUM SIDE DIMENSION OF 18-INCHES THROUGH 48-54-INCHES LARGEST SIDE DIMENSION. PROVIDE A MINIMUM OF (5) OF THE LARGEST SIZE. ALL INSTALLED BURIED TO A DEPTH OF 1/4 TO 1/3 OF OVERALL HEIGHT.

16. ALL LANDSCAPED AREAS WITHIN PROJECT AREA SHALL BE PROVIDED WITH AN UNDERGROUND AUTOMATIC SPRINKLER SYSTEM - DESIGN-BUILD THROUGH GENERAL CONTRACTOR. RECORD DRAWINGS SHALL BE SUBMITTED FOR ALL PIPING WITHIN THE R.O.W., UTILITY, AND SIDEWALK EASEMENTS.

17. MAINTENANCE: THE PROPERTY OWNER SHALL MAINTAIN ALL LANDSCAPING IN A HEALTHY CONDITION, FREE FROM REFUSE, AND DEBRIS.

18. INSTALL SOIL EROSION CONTROL FABRIC ON ALL SLOPES STEEPER THAN 6:1 UNLESS OTHERWISE NOTED.

GENERAL UTILITY NOTES

- BEDDING SHALL EXTEND A MINIMUM OF 4" BELOW THE PIPE, UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING SHALL BE OF UNIFORM GRADATION MDOT 6Aa STONE OR MDOT CLASS II GRANULAR MATERIAL FOR SANITARY AND STORM PIPE AND MDOT CLASS II GRANULAR MATERIAL ONLY FOR WATERMAIN.
- WHERE UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED, STONE BEDDING SHALL BE USED AS DIRECTED BY THE ENGINEER.
- BACKFILL SHALL BE OF A SUITABLE MATERIAL AND SHALL BE FREE OF ANY ORGANIC MATERIALS AND ROCKS.
- BACKFILL ABOVE THE PIPE SHALL BE OF GRANULAR MATERIAL MDOT CLASS II TO A POINT 12" ABOVE THE TOP OF THE PIPE. WHERE THE TRENCH IS NOT WITHIN THE INFLUENCE OF THE ROAD, SUITABLE SITE MATERIAL MAY BE COMPACTED AND UTILIZED FROM A POINT 12" ABOVE THE PIPE TO GRADE. WHERE THE TRENCH IS WITHIN A 1:1 INFLUENCE OF THE ROAD, GRANULAR MATERIAL MDOT CLASS II OR III, IS TO BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 12" IN THICKNESS. COMPACTION SHALL BE 95% AS DETERMINED BY AASHTO T99.
- 18" MINIMUM VERTICAL SEPARATION AND 10' HORIZONTAL SEPARATION IS TO BE MAINTAINED BETWEEN WATERMAIN AND SANITARY/STORM SEWER TO THE MAXIMUM EXTENT POSSIBLE.

ALSO REFER TO 'PROJECT SPECIAL UTILITY NOTES' FOR THE VILLAGE OF PINCKNEY ON THE UTILITY PLAN SHEET CSB AND VILLAGE STANDARD DETAILS AND SPECIFICATION SHEET C9

GENERAL STORM NOTES

- ALL STORM PIPE LENGTHS ARE SHOWN FROM C/L TO C/L OF STRUCTURE OR FROM C/L OF STRUCTURE TO DISCHARGE END OF FLARED END SECTION.
- STORM PIPE MATERIALS SHALL BE AS FOLLOWS:
 - RCP/REINFORCED CONCRETE PIPE): SHALL MEET THE REQUIREMENTS OF ASTM C76 WITH MODIFIED GROOVED TONGUE AND RUBBER GASKETS MEETING THE REQUIREMENTS OF ASTM C443. RCP TO BE EITHER CLASS IV OR V AS CALLED OUT ON THE PLANS.
 - HDPE(HIGH DENSITY POLYETHYLENE): SHALL MEET THE REQUIREMENTS OF ASTM F2648.
 - PP(POLYPROPYLENE): SHALL MEET THE REQUIREMENTS OF ASTM F2881.
 - PVC(POLYVINYL CHLORIDE): SHALL MEET THE REQUIREMENTS OF ASTM D3034.
- STORM PIPE JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3212. HDPE AND PP PIPE GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.
- ALL STORM PIPE TO HAVE WATERTIGHT PREMIUM JOINTS, UNLESS OTHERWISE NOTED ON THE PLANS.
- STORM DRAINAGE STRUCTURES SHALL BE FURNISHED WITH STEPS WHICH SHALL BE STEEL ENCASED WITH POLYPROPYLENE PLASTIC OR EQUIVALENT. STEPS SHALL BE SET AT 16" CENTER TO CENTER.
- ALL FLARED END SECTIONS 15" AND LARGER SHALL BE FURNISHED WITH AN ANIMAL GRATE.
- FLARED END SECTIONS DISCHARGING STORM WATER SHALL RECEIVE A MINIMUM OF 10 SQ YDS OF PLAIN COBBLESTONE RIP RAP WITH A MINIMUM STONE SIZE OF 6" AND SHALL BE PLACED ON A GEOTEXTILE FABRIC WRAP.
- ALL CATCH BASINS WITHIN THE ROADWAY SHALL INCLUDE INSTALLATION OF 6" DIAMETER PERFORATED PIPE SUBDRAIN.
- STORM DRAINAGE STRUCTURE COVERS SHALL BE OF THE FOLLOWING (OR APPROVED EQUAL):

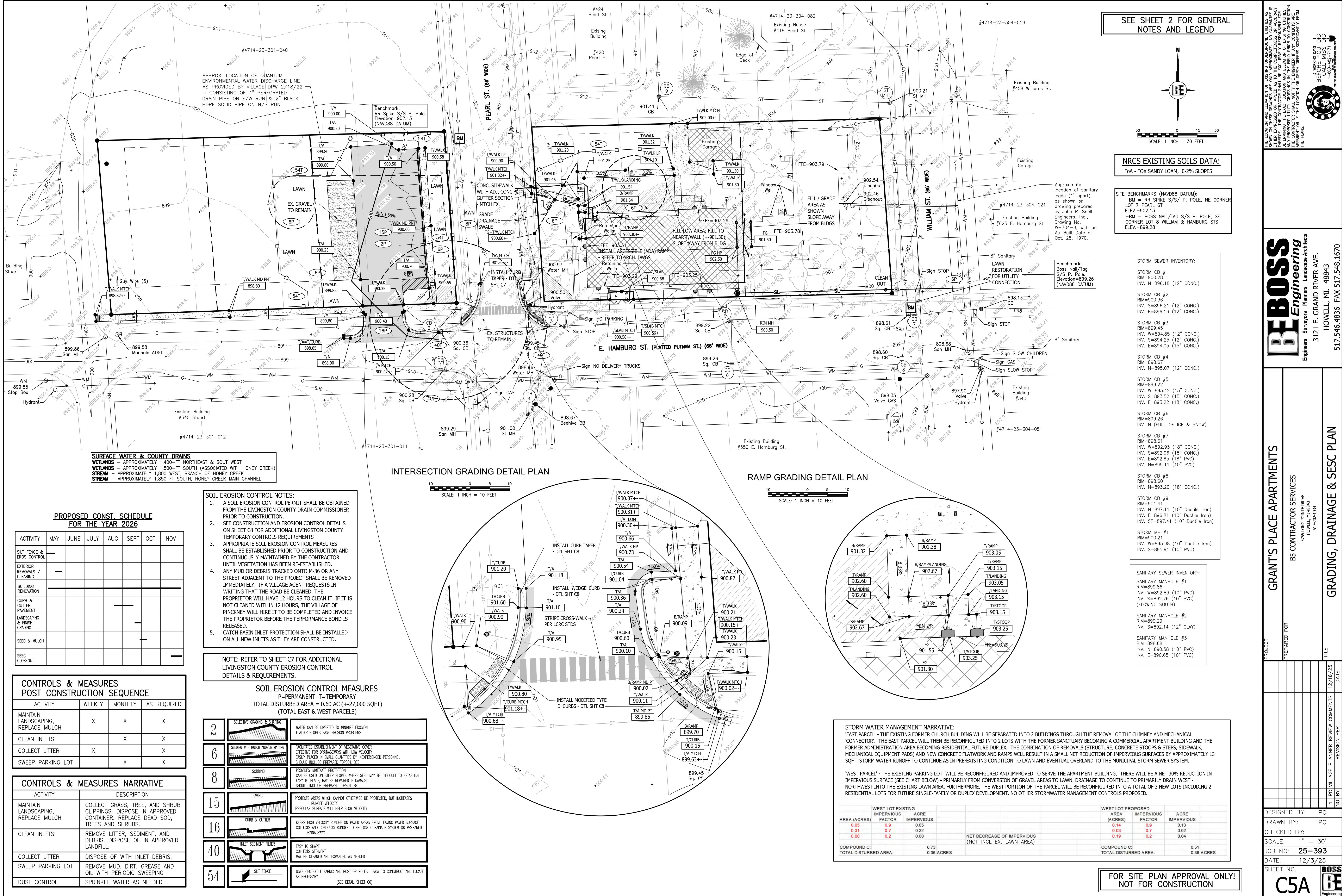
COVER USE	FRAME	GRATE/BACK
'A' MANHOLE	1040	TYPE 'B'
'B' TYPE B2 CURB	7085	TYPE 'M1'
'C' VALLEY CURB	7065	7045 TYPE 'M1' GRATE OR 7060 TYPE 'T1' BACK
'D' PARKING LOTS	1040/5100	TYPE 'M1' GRATE OR 5105 TYPE 'M1' GRATE
'E' LAWN	1040	TYPE 'O2' GRATE
'K' TYPE C & F CURB	7045	TYPE 'M1' GRATE/7050 TYPE 'T1' BACK
- THE PROPOSED DRAINAGE SYSTEM IS TO BE OWNED AND PROPERLY MAINTAINED BY THE PROPERTY OWNER (LIVINGSTON COUNTY ONLY)

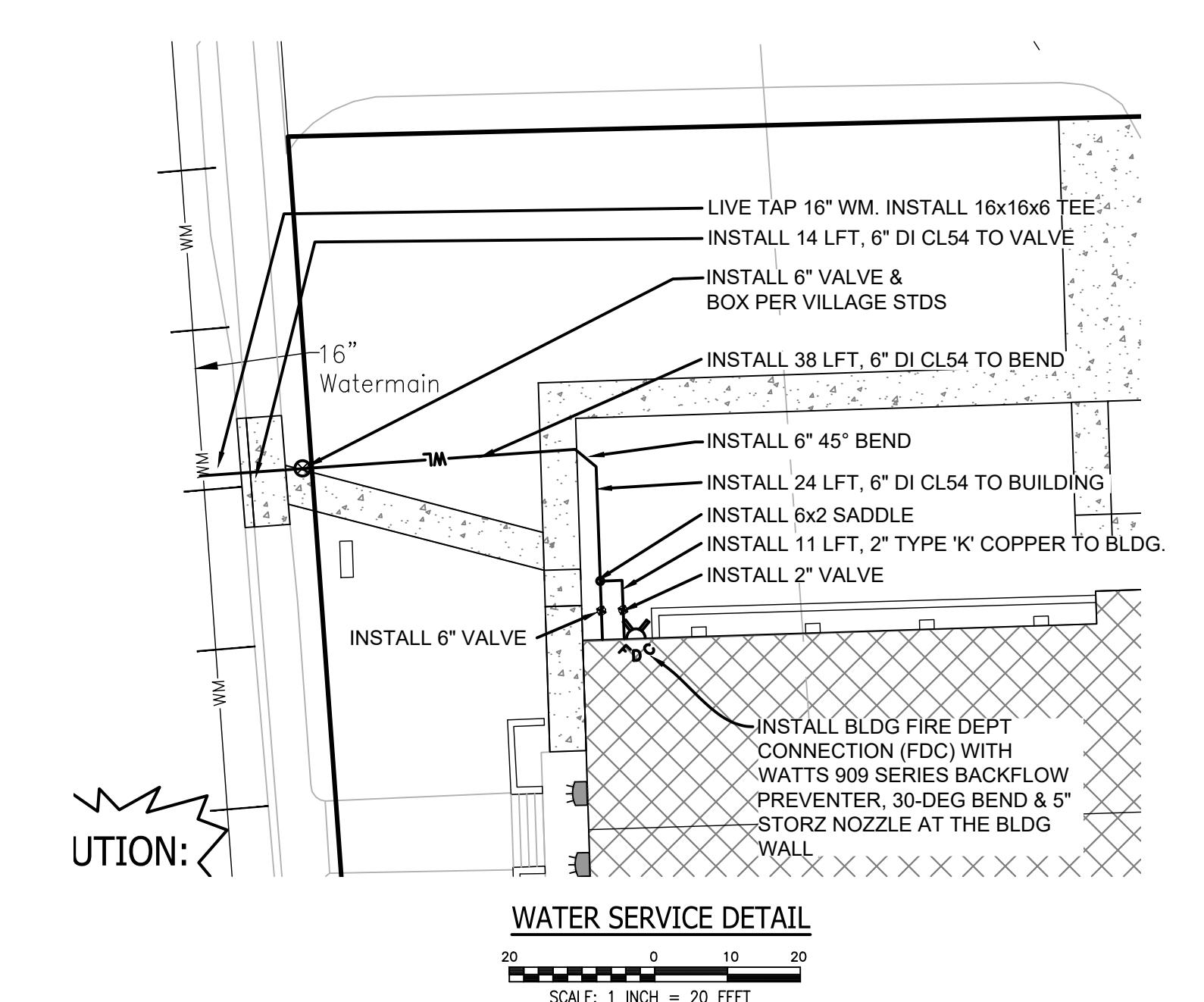
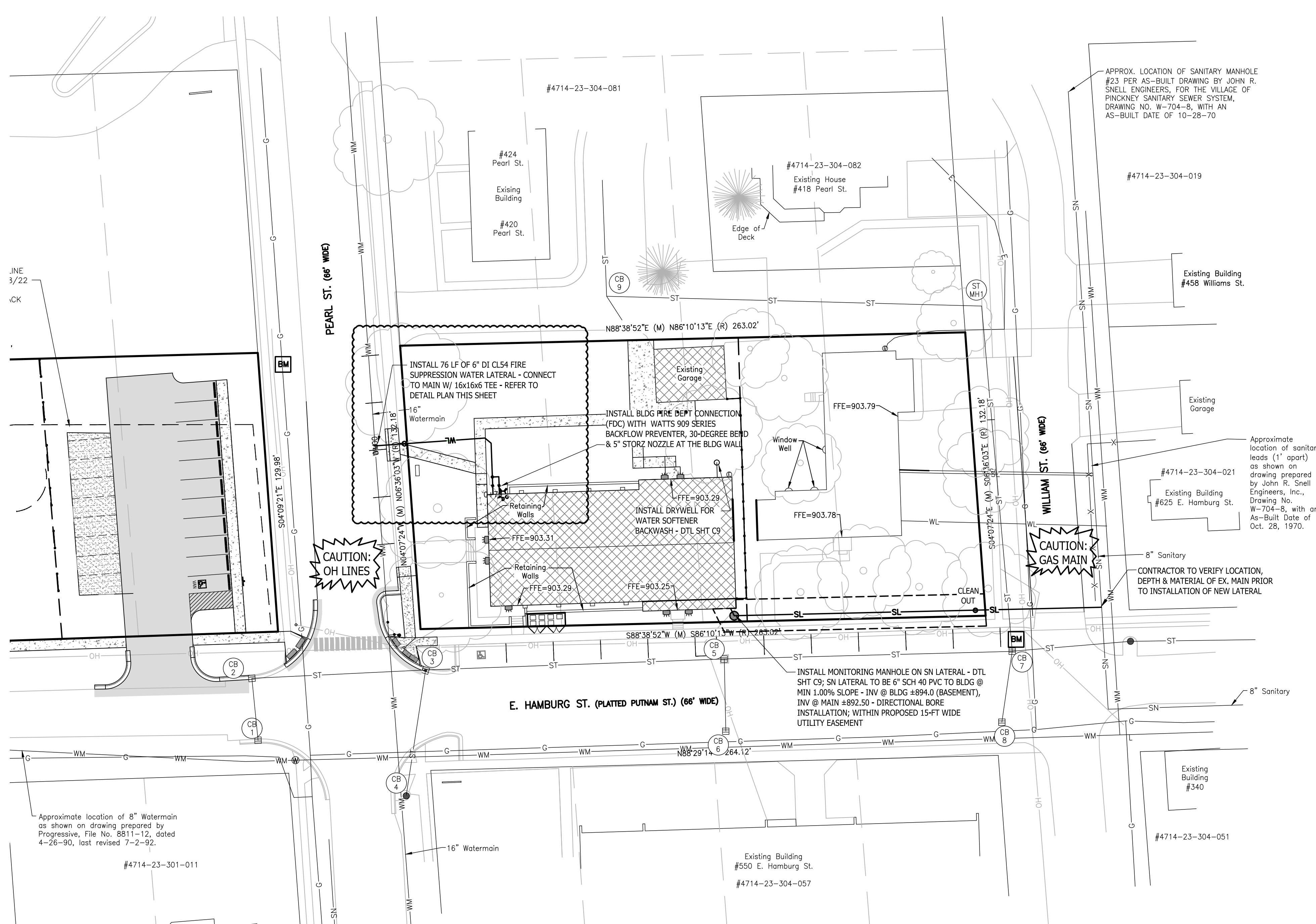
GENERAL SANITARY NOTES

- ALL SANITARY PIPE LENGTHS ARE SHOWN FROM C/L OF STRUCTURE TO C/L OF STRUCTURE.
- SANITARY PIPE MATERIALS SHALL BE AS FOLLOWS:
 - PVC SDR-26 (SANITARY MAIN)
 - PVC SDR-23.5 (SANITARY LEADS)
 - HDPE DR-11 (SANITARY FORCEMAIN)
- ALL PVC SDR SANITARY SEWER PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3034 AND D2241. PVC SDR 40 PIPE SHALL MEET THE REQUIREMENTS OF ASTM D1785. GASKET JOINTS FOR SANITARY PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3139 AND D3212.
- SANITARY STRUCTURES SHALL BE FURNISHED WITH STEPS WHICH SHALL BE STEEL ENCASED WITH POLYPROPYLENE PLASTIC OR EQUIVALENT. STEPS SHALL BE SET AT 16" CENTER TO CENTER.
- ALL NEW MANHOLES SHALL BE MINIMUM 4" DIAMETER, PRECAST MANHOLE SECTIONS AND AN ECCENTRIC CONE. PRECAST MANHOLE JOINTS SHALL BE INSTALLED WITH BUTYL ROPE MEETING THE REQUIREMENTS OF ASTM C90.
- MANHOLES SHALL BE CONSTRUCTED WITH FLOW CHANNEL WALLS THAT ARE FORMER, AT A MINIMUM, TO THE SPRINGLINE OF THE PIPE.
- ALL NEW MANHOLES SHALL HAVE AN APPROVED FLEXIBLE, WATERTIGHT SEALS WHERE PIPES PASS THROUGH MANHOLE WALLS.
- WHEREVER AN EXISTING MANHOLE IS TO BE TAPPED, THE STRUCTURE SHALL BE CORED AND A KOR-N-SEAL BOOT UTILIZED FOR THE PIPE CONNECTION.
- ALL MANHOLES SHALL BE PROVIDED WITH WATERTIGHT COVERS. COVERS TO BE EJCO 1040 TYPE 'A' SOLID COVER.
- A MAXIMUM OF 12" OF GRADE ADJUSTMENT RINGS SHALL BE USED TO ADJUST THE FRAME ELEVATION. BUTYL ROPE SHALL BE USED BETWEEN EACH ADJUSTMENT RING.
- SANITARY SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 1.0%.
- CLEANOUTS SHALL BE INSTALLED EVERY 100', AT ALL BENDS AND STUBS.
- PUBLIC SANITARY SEWER SHALL BE CENTERED WITHIN A XX FOOT WIDE SANITARY EASEMENT.

GENERAL WATERMAIN NOTES

- WATERMAIN PIPE MATERIALS SHALL BE AS FOLLOWS:
 - D.J.P. CL52 (WATERMAIN)
 - TYPE 'K' COPPER (WATER LATERAL - MAIN TO CURB STOP)
 - HDPE DR-9 (WATER LATERAL - CURB STOP TO STUB)
- WATERMAIN FITTINGS SHALL BE OF DUCTILE IRON WITH CEMENT MORTAR LINING AND MECHANICAL JOINTS CONFORMING TO AWWA C110.
- WATERMANS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. BAC-T SAMPLES SHALL BE TAKEN IN ACCORDANCE WITH R235.1.110 OF THE ADMINISTRATIVE RULES PROMULGATED UNDER MICHIGAN SAFE DRINKING WATER ACT, 1976 PA 399, AS AMENDED.
- ALLOWABLE LEAKAGE OR HYDROSTATIC PRESSURE TESTING SHALL BE IN ACCORDANCE WITH AWWA C600 and C605.</li





STORM SEWER INVENTORY:

STORM CB #1

RIM=900.28

INV. N=896.18 (12" CONC.)

STORM CB #2

RIM=900.36

INV. S=896.21 (12" CONC.)

INV. E=896.16 (12" CONC.)

STORM CB #3

RIM=899.45

INV. W=894.85 (12" CONC.)

INV. S=894.25 (12" CONC.)

INV. E=894.05 (15" CONC.)

STORM CB #4

RIM=898.67

INV. N=895.07 (12" CONC.)

STORM CB #5

RIM=899.22

INV. W=893.42 (15" CONC.)

INV. S=893.52 (15" CONC.)

INV. E=893.22 (18" CONC.)

STORM CB #6

RIM=899.26

INV. N (FULL OF ICE & SNOW)

STORM CB #7

RIM=898.61

INV. W=892.93 (18" CONC.)

INV. S=892.96 (18" CONC.)

INV. E=892.85 (18" PVC)

INV. N=895.11 (10" PVC)

STORM CB #8

RIM=898.60

INV. N=893.20 (18" CONC.)

STORM CB #9

RIM=901.41

INV. N=897.11 (10" Ductile Iron)

INV. E=896.81 (10" Ductile Iron)

INV. SE=897.41 (10" Ductile Iron)

STORM MH #1

RIM=900.21

INV. W=895.98 (10" Ductile Iron)

INV. S=895.91 (10" PVC)

SANITARY SEWER INVENTORY:

SANITARY MANHOLE #1

RIM=899.86

INV. W=892.83 (10" PVC)

INV. S=892.76 (10" PVC)

(FLOWING SOUTH)

SANITARY MANHOLE #2

RIM=899.29

INV. S=892.14 (12" CLAY)

SANITARY MANHOLE #3

RIM=898.68

INV. N=890.58 (10" PVC)

INV. E=890.65 (10" PVC)

SEE SHEET 2 FOR GENERAL
NOTES AND LEGEND

NRCS EXISTING SOILS DATA:

FoA - FOX SANDY LOAM, 0-2% SLOPES

E BENCHMARKS (NAVD88 DATUM):
-BM = RR SPIKE S/S/ P. POLE, NE CORNER
LOT 7 PEARL ST
ELEV.=902.13
-BM = BOSS NAIL/TAG S/S P. POLE, SE
CORNER LOT 8 WILLIAM & HAMBURG STS
ELEV.=899.28

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PROPOSED UTILITY CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONFLICTS ARE APPARENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

BE BOSS Engineering

Engineers Surveyors Planners Landscape Architects

2121 E GRAND RIVIERE AVE

3121 E. GRAND RIVER AVE.
HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670

GRANT'S PLACE APARTMENTS

BS5 CONTRACTOR SERVICES

5755 LONG POINTE DRIVE
HOWELL, MI 48843
517-202-1034

UTILITY PLAN

915

910

905

900

895

890

895

900

905

910

915

PROPOSED GROUND

EXISTING GROUND

COMPACTED SAND BACKFILL

6" D.I.P. PR.CL350, TH.CL54 W/POLY

CONNECT TO EX. 16" WM W/ 16x6x6 TEE

CONNECT TO BLDG FIRE DEPT CONNECTION

8 LF VALVE TO BLDG

4 LF BEND TO BEND

14 LF TEE TO VALVE

38 LF VALVE TO BEND

16 LF BEND TO VALVE

GV 01

GV 02

STA 0+14 RIM 901.35 T/P 895.83

STA 0+51 T/P 895.83

45° HOR BEND

STA 0+55 T/P 895.83

STA 0+71 RIM 901.62 T/P 895.98

45° HOR BEND

2" DOMESTIC LEAD

PROFILE HOR. SCALE: 1" = 50'
PROFILE VERT. SCALE: 1" = 10'

901.35

0+00

1+00

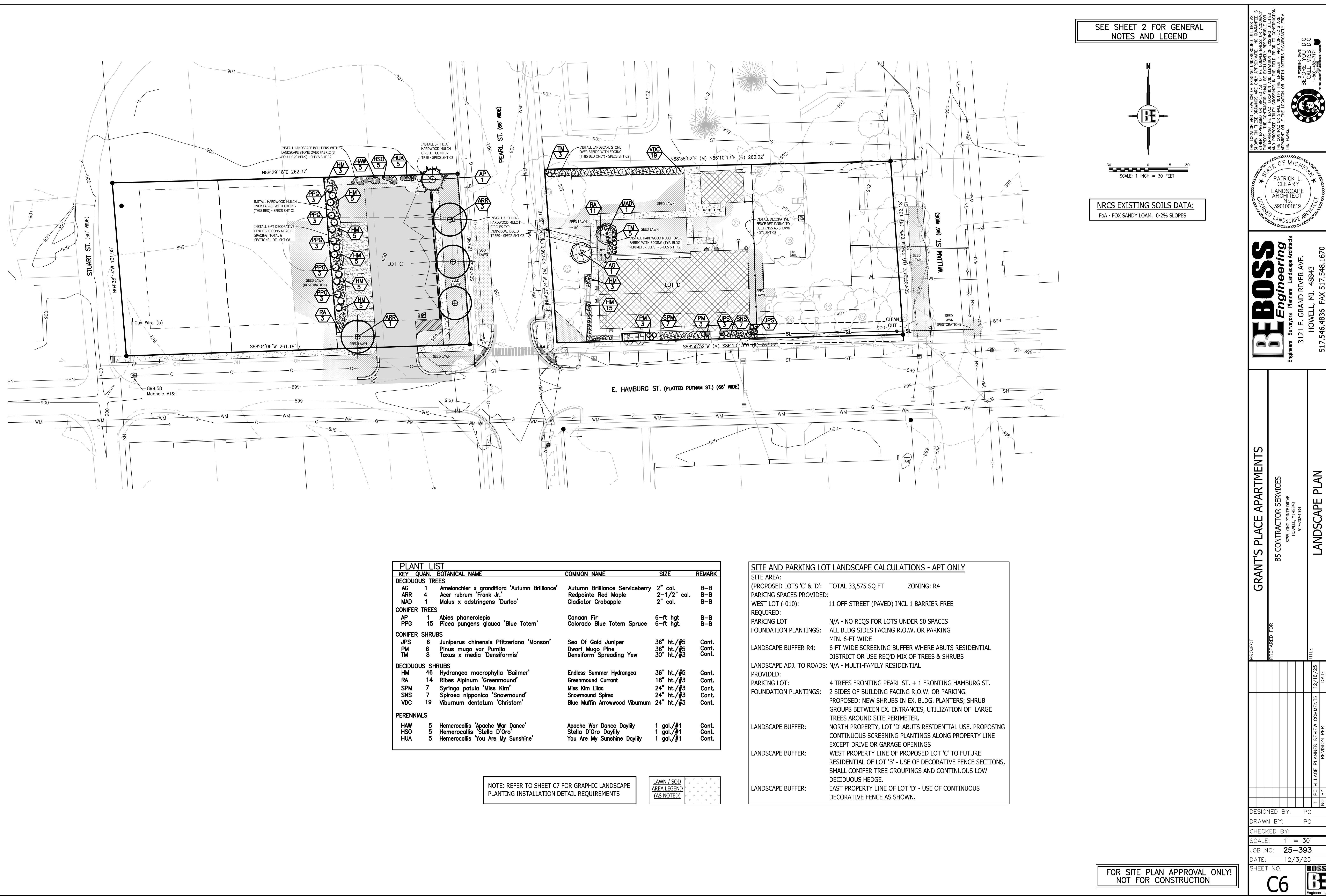
EXISTING

PROPOSED

WATER SERVICE PROFILE

FOR SITE PLAN APPROVAL ONLY!
NOT FOR CONSTRUCTION

DESIGNED BY:	PC
DRAWN BY:	PC
CHECKED BY:	
SCALE:	AS NOTED
JOB NO:	25-393
DATE:	12/3/25
SHEET NO.	
C5B	



LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE
TEMPORARY CONTROLS AND SEQUENCE

- NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS PRIOR TO START OF GRADE WORK.
- IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974, THE PERMIT HOLDER SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.

PERMITTING STANDARDS

- (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.

- 36" M.D.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING PROJECT SITE.

- ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.

- PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.

RETENTION PONDS

- RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.

- DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTER SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKES SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.

- THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SODDED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.

- DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.

- RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4' CHAIN LINK FENCE, INCLUDING A 12' ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM 5 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.

- ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH WILL BE STORED ON SITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.

- SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.

SLOPES AND DITCHES

- ON SITE DITCHES SHALL BE OF THE FLAT BOTTOM TYPE MINIMUM WIDTH OF 2' WITH A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL SIDE SLOPES, 3:1.

- DITCHES WITH STEEP SLOPES WILL NEED FLOW CHECKS TO PREVENT SCOURING OF THE DITCH BOTTOM. THESE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR INSPECTOR.

- SLOPES IN EXCESS OF 3 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE.

STORM DRAINS

- ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING SOIL MOVEMENT, AROUND THE STRUCTURE.

- STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.

- BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.

- COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER CODE SIZE.

- ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.

- ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
- ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE RETENTION/DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH STORM.
- STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KEYED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER STONE.
- RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS DISTANCE FROM THE OUTLET POINT INCREASES AT A 3:1 RATIO.
- RIP RAP SHALL BE OF STONE, 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE STONE SET IN THE CEMENT SLURRY.
- STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.
- IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.

STABILIZATION

- ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A MINIMUM OF 3" OF MATERIAL, SEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF THIS PROCEDURE.
- IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW MATTING.

- PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.

- THIS COMMERCIAL PERMIT IS VALID FOR THE MASS EARTH MOVEMENT, THE INSTALLATION OF ROADS, DRAINS, AND UTILITIES ONLY. THE PERMIT IS NOT FOR INDIVIDUAL BUILDING UNITS. IT IS REQUIRED THAT THE TEMPORARY STABILIZATION OF THE ENTIRE SITE BE COMPLETED AND APPROVAL FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE MUST BE OBTAINED PRIOR TO THE ISSUANCE OF PERMITS FOR INDIVIDUAL BUILDING UNITS.

- THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.

- PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING, FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS:

- TOP-SOIL 3" IN DEPTH
- GRASS SEED 218 LBS. PER ACRE
- FERTILIZER 150 LBS. PER ACRE
- STRAW MULCH 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL MULCHING MUST HAVE A TIE DOWN, SUCH AS TACKIFIER, NET BINDING, ETC.)

- HYDRO-SEEDING 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH SEED AND STRAW MULCH WITH A TACKIFIER.)

MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS

- SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.

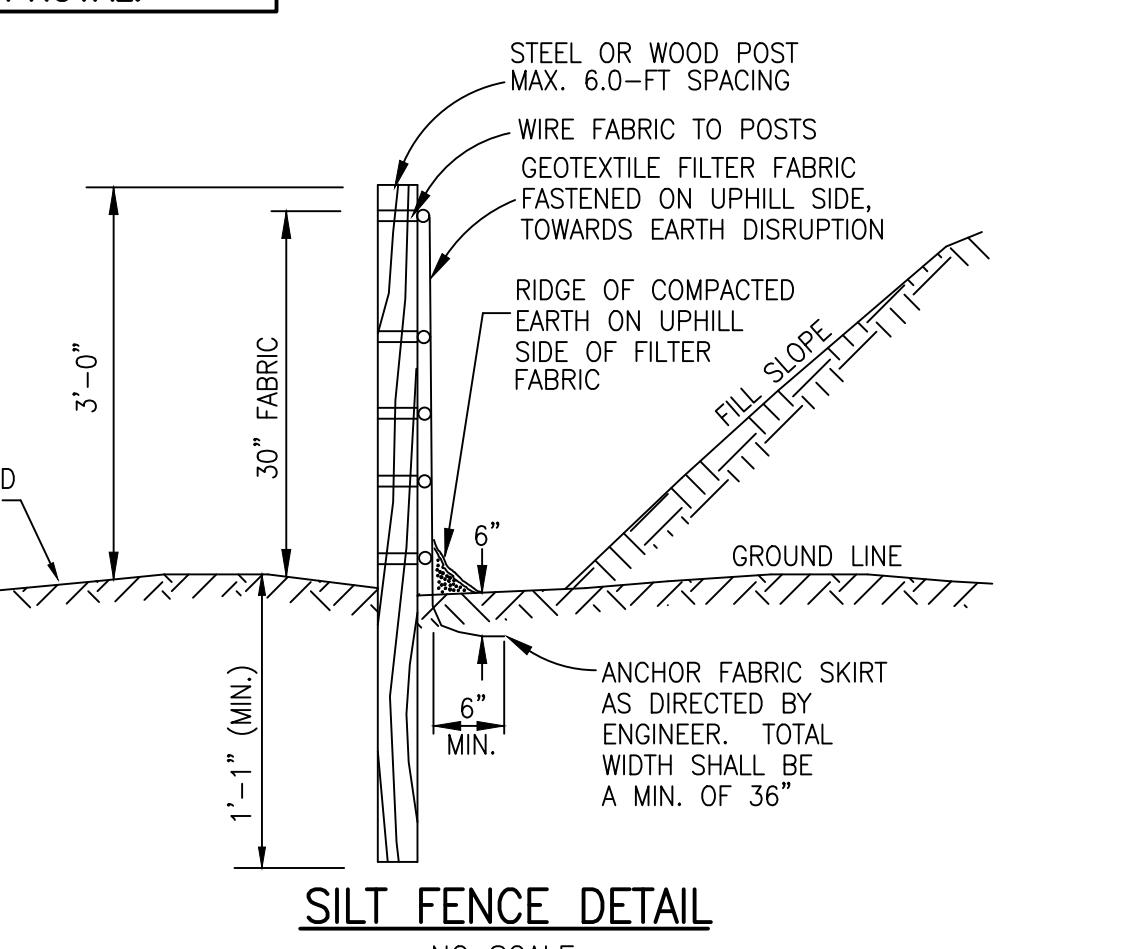
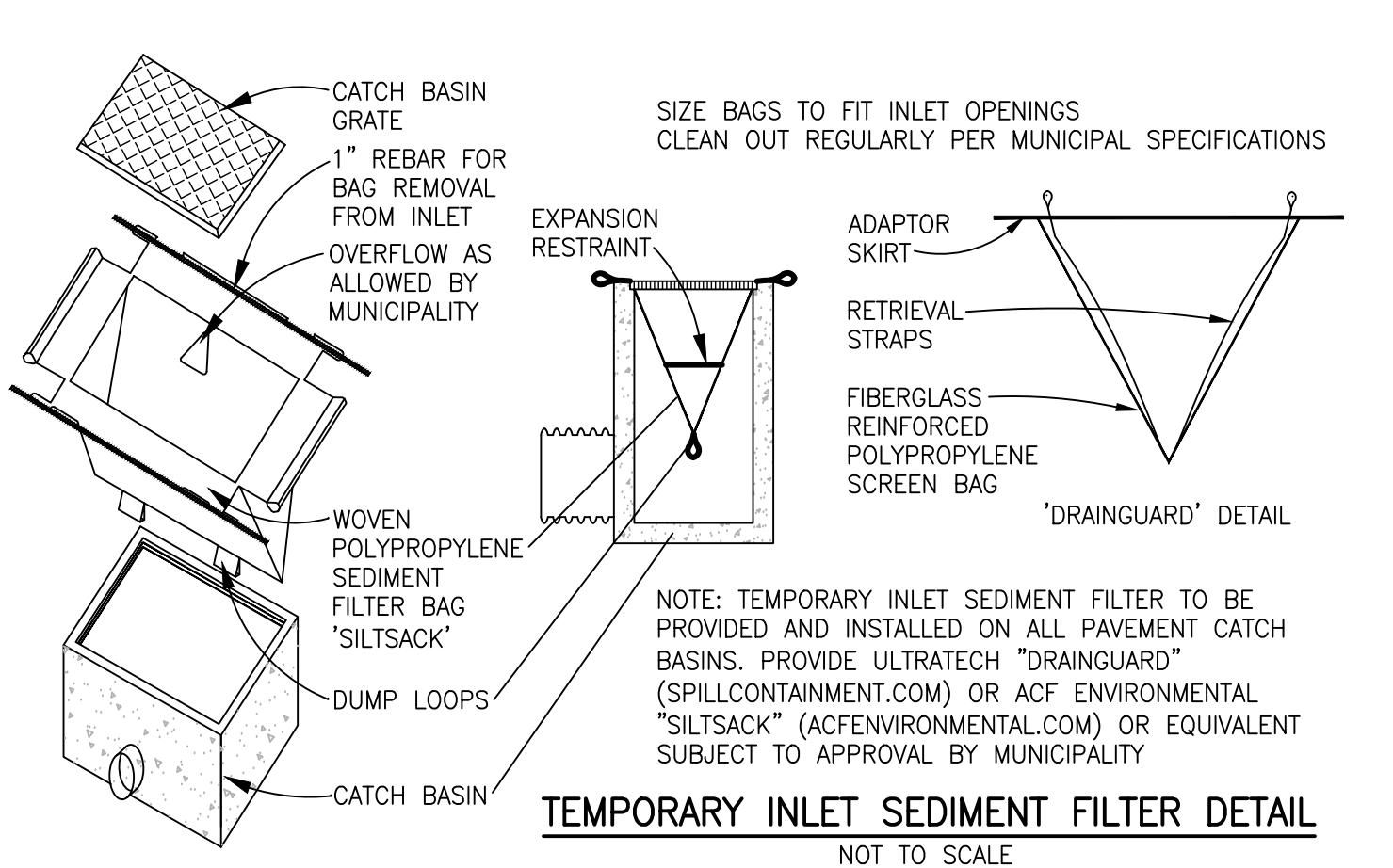
- TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHOKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.

- DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE EMBANKMENT.

- CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.

- COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER GRADE WORK, PURSUANT TO RULE 1709 (5).

NOTE: ANY DEWATERING REQUIRED SHALL HAVE A DEWATERING PLAN SUBMITTED PRIOR TO STARTING THE ACTIVITY AND MAY REQUIRE EGLE APPROVAL.



SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

BEFORE BACK FILLING AROUND PLANT, REMOVE ALL PLASTIC BAGGING MATERIAL & METAL CONTAINERS. PUNCH HOLES IN FIBER POTS TO PROVIDE DRAINAGE.

NEVER PRUNE EVERGREENS

TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE TO PREVIOUS EXISTING GRADE

RUBBER HOSE 1/2 UP TREE POSITIONED DIRECTLY ABOVE TREE BRANCH

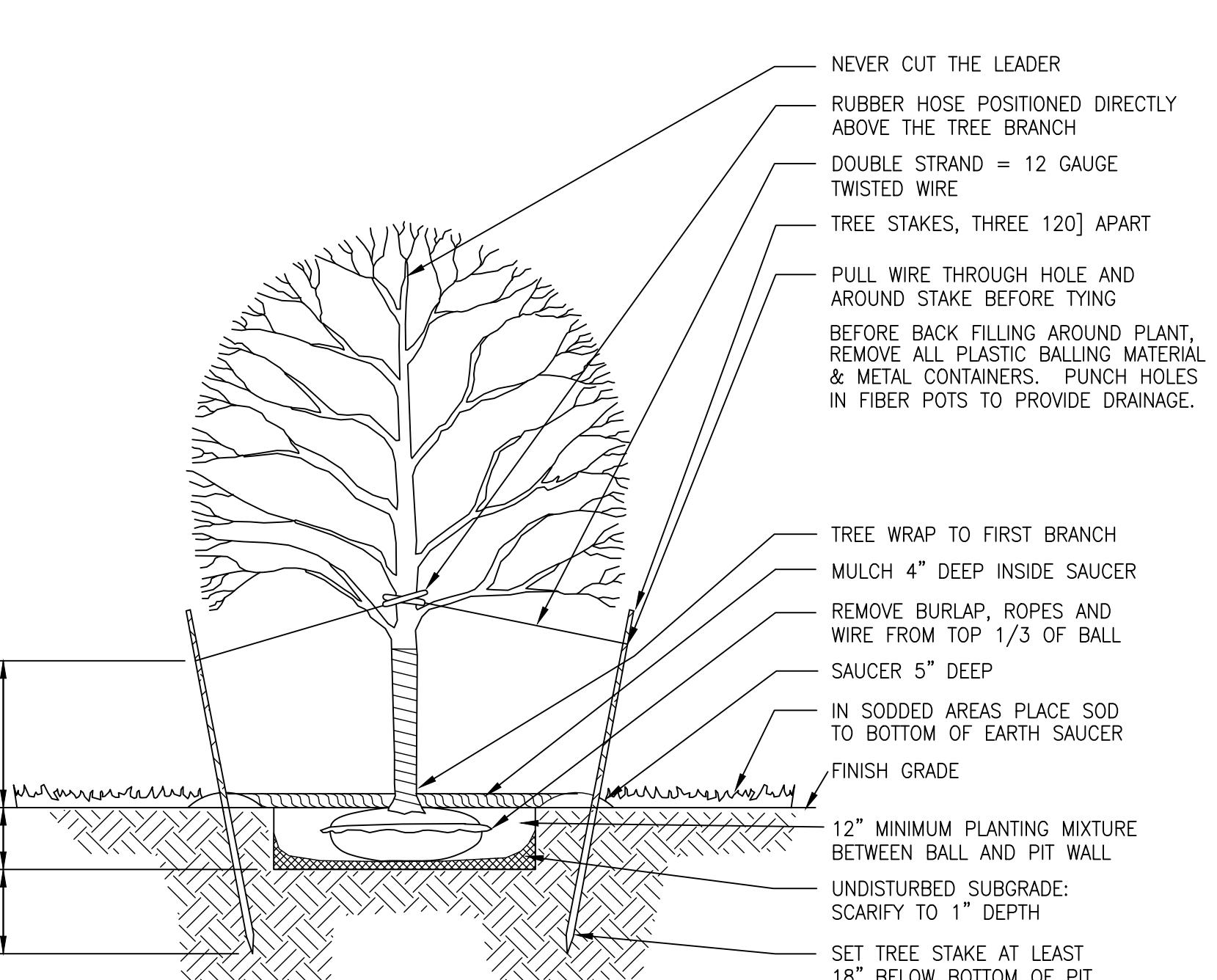
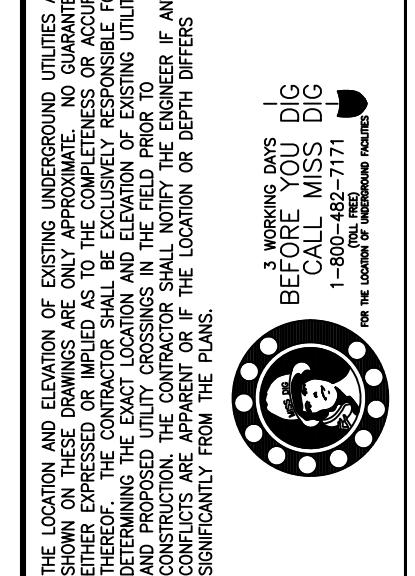
GUYING CABLE @ 3 GUYS PER TREE (120' APART) DOUBLE STRAND = 12 GAUGE TWISTED WIRE

4" MULCH INSIDE SAUCER EARTH SAUCER 5" DEEP

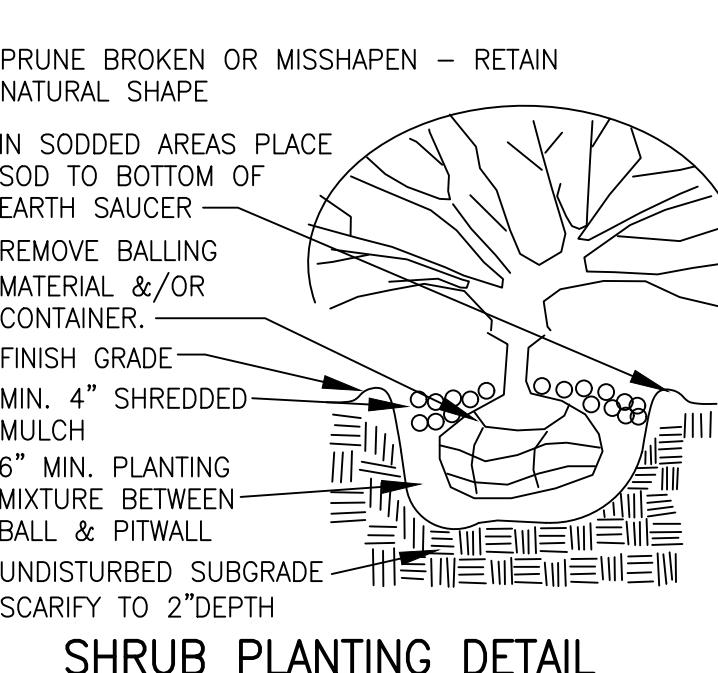
IN SODDED AREAS PLACE SOD TO BOTTOM OF EARTH SAUCER 2"X4"X30" STAKE SET BELOW FIN. GRADE REMOVE TOP 1/3 OF BURLAP, ROPES & WIRE

PLANTING MIX SUBGRADE SCARIFY TO 4" DEPTH 6" COMPACTED PLANTING MIX UNDER BALL

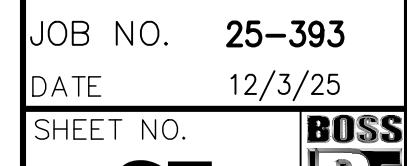
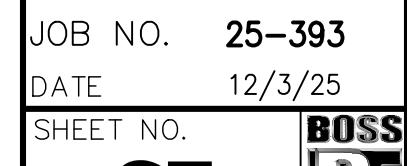
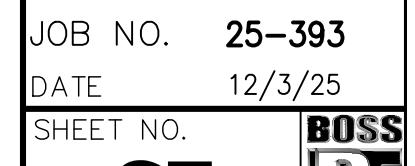
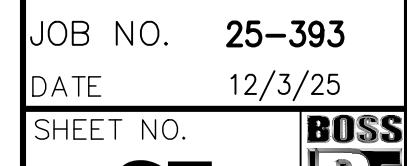
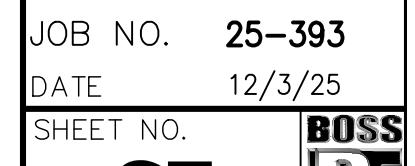
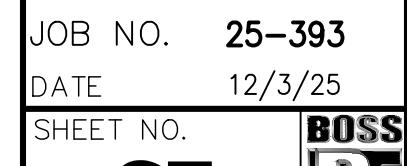
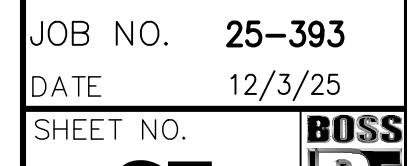
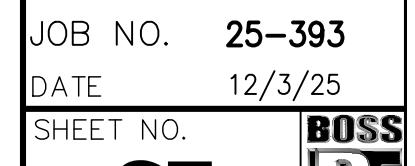
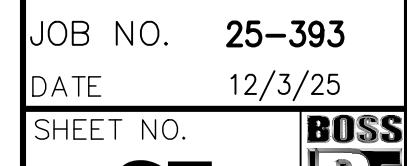
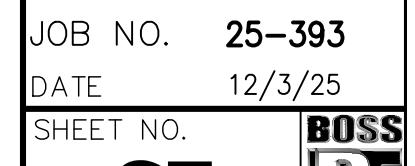
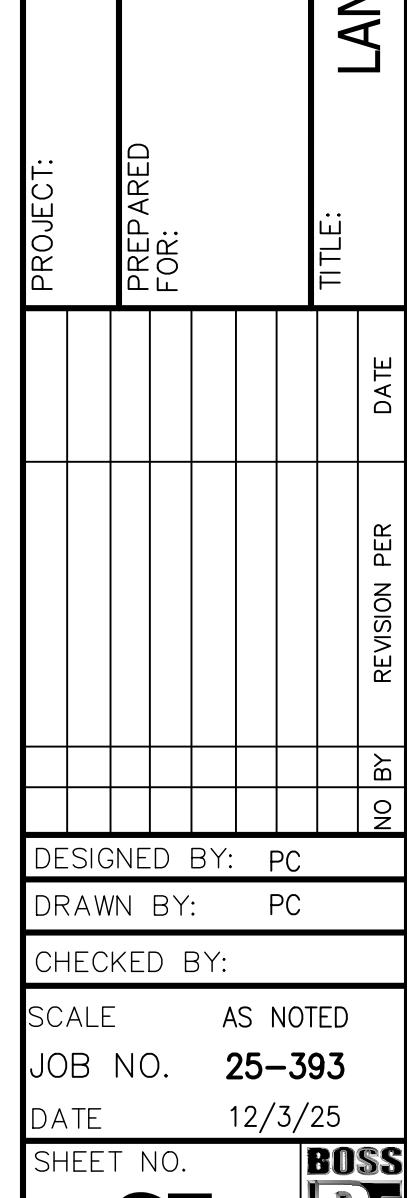
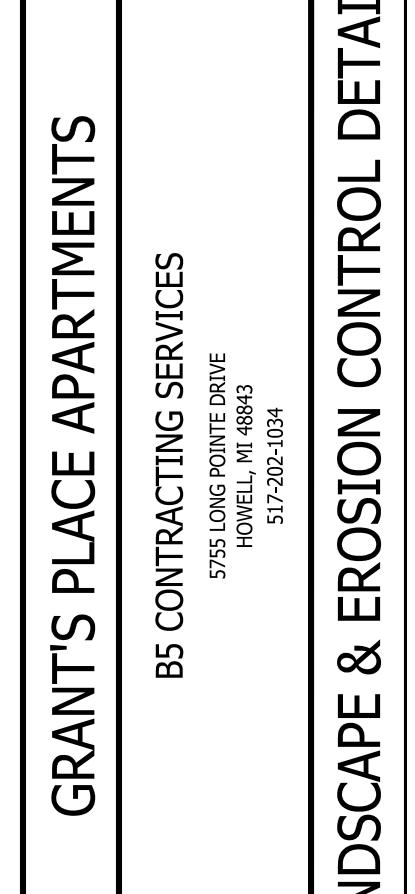
EVERGREEN TREE PLANTING DETAIL (NO SCALE)

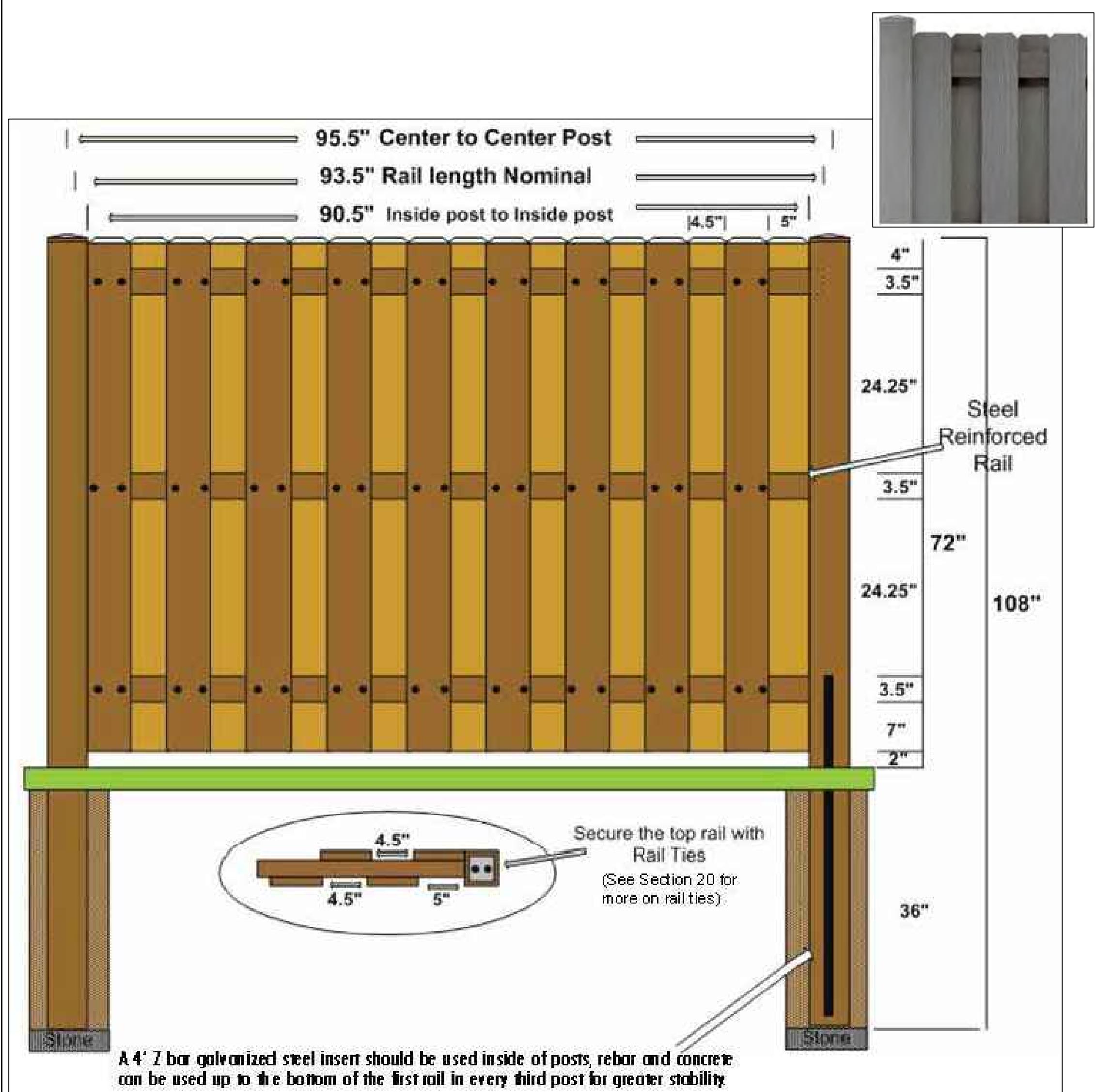


DECIDUOUS TREE PLANTING DETAIL (NO SCALE)

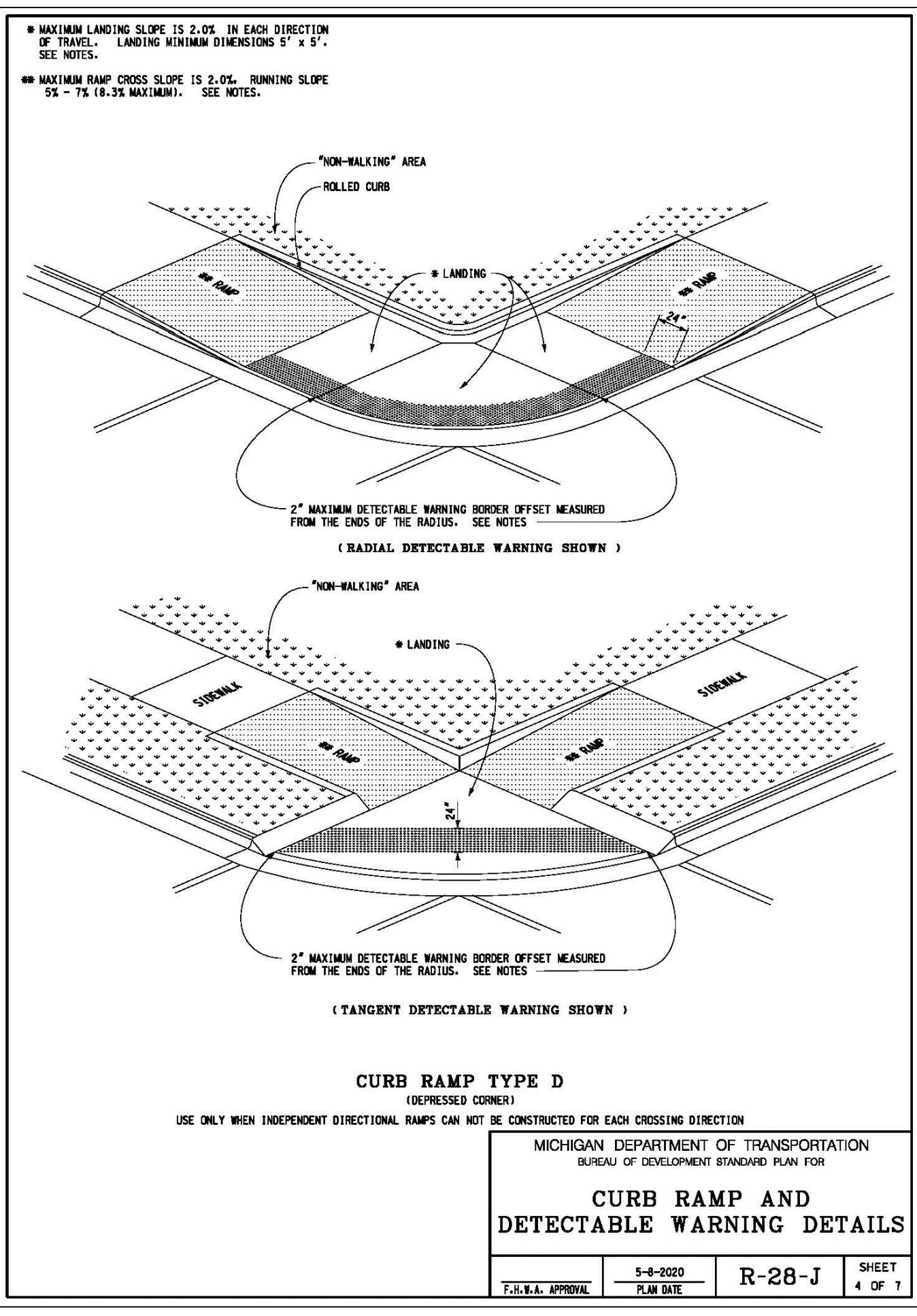


SHRUB PLANTING DETAIL (NO SCALE)





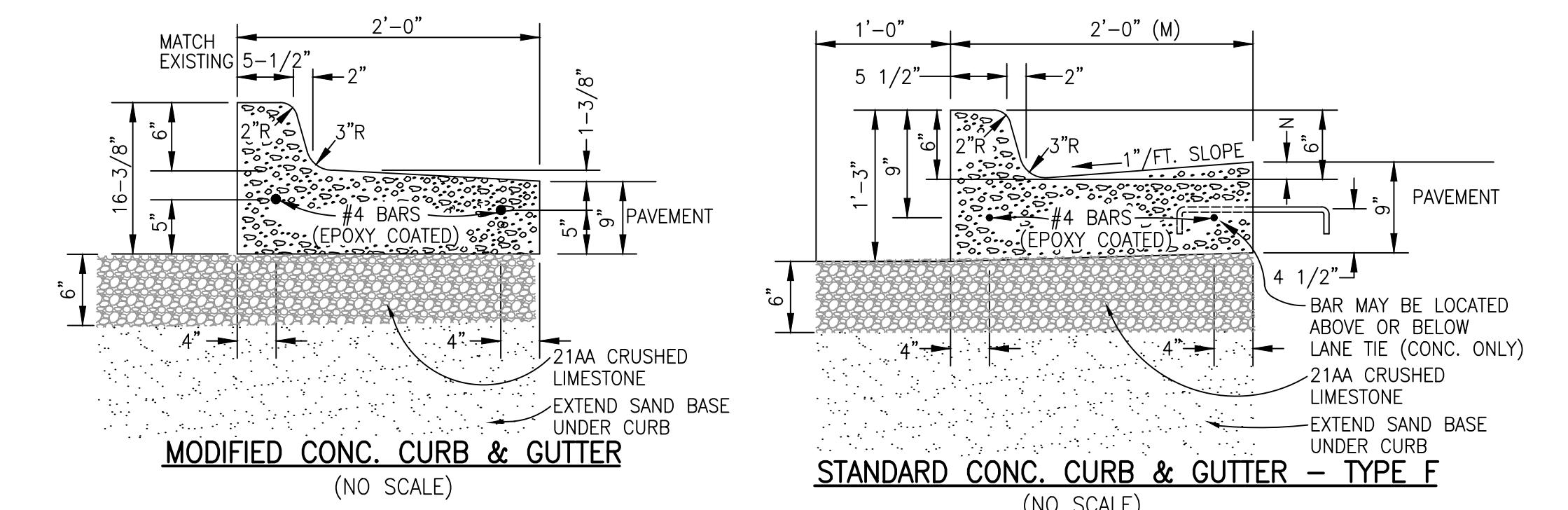
6-FT HEIGHT WOOD SHADOW-BOX FENCE DETAILS
(NOT TO SCALE)



CURB RAMP AND DETECTABLE WARNING DETAILS



BIKE RACK DETAIL
(NOT TO SCALE)



MODIFIED CONC. CURB & CUTTER (NO SCALE)

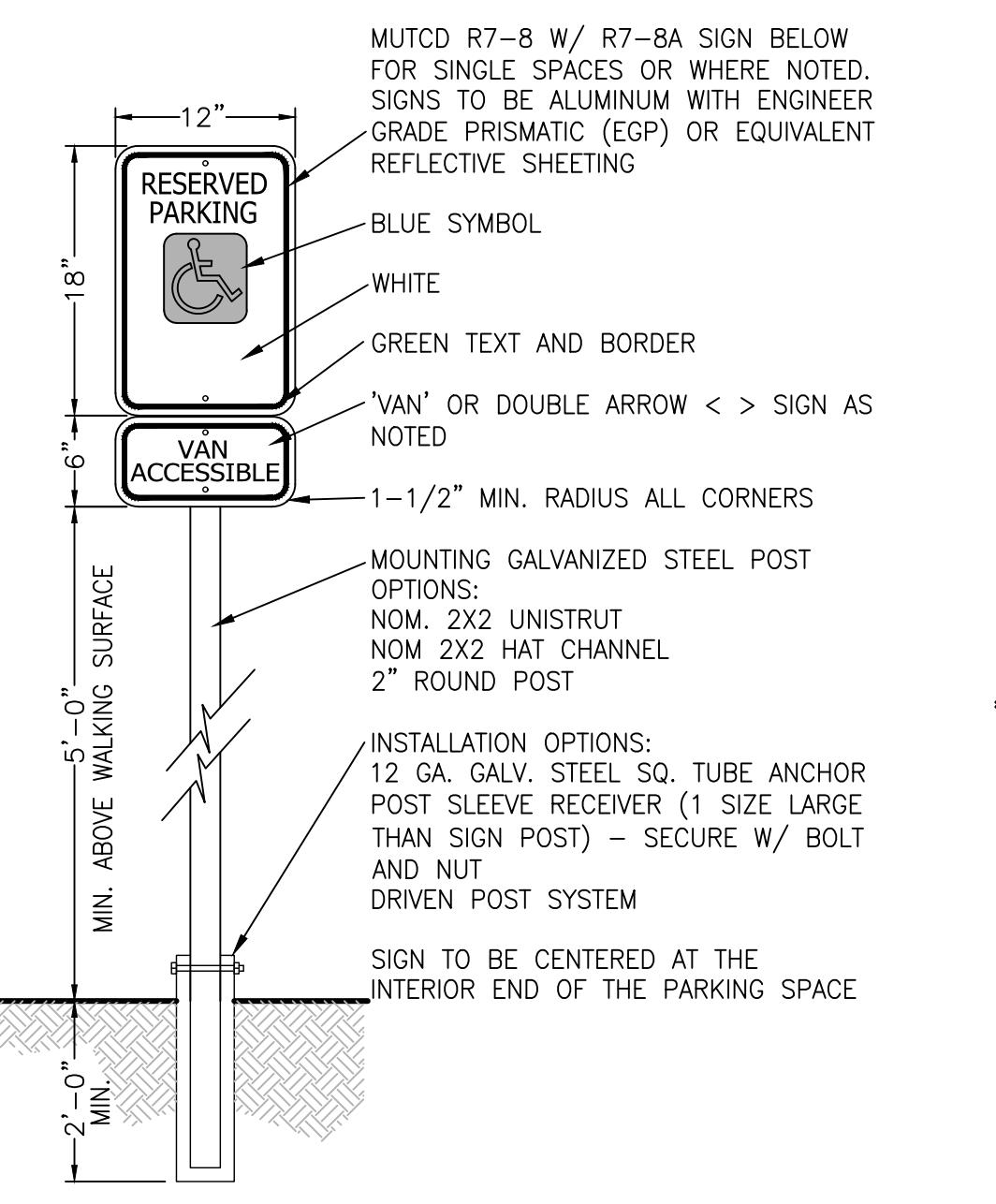
STANDARD CONC. CURB & CUTTER - TYPE F (NO SCALE)

DETAIL	DIMENSIONS	M	N	LANE TIES	CONCRETE CU.YD./LIN.FT.
F1	1'-6" 7/8"	AS SHOWN			0.0484
F2	1'-6" 7/8"	OMITTED			0.0484
F3	2'-0" 1 3/8"	AS SHOWN			0.0610
F4	2'-0" 1 3/8"	OMITTED			0.0610
F5	2'-6" 1 7/8"	AS SHOWN			0.0737
F6	2'-6" 1 7/8"	OMITTED			0.0737

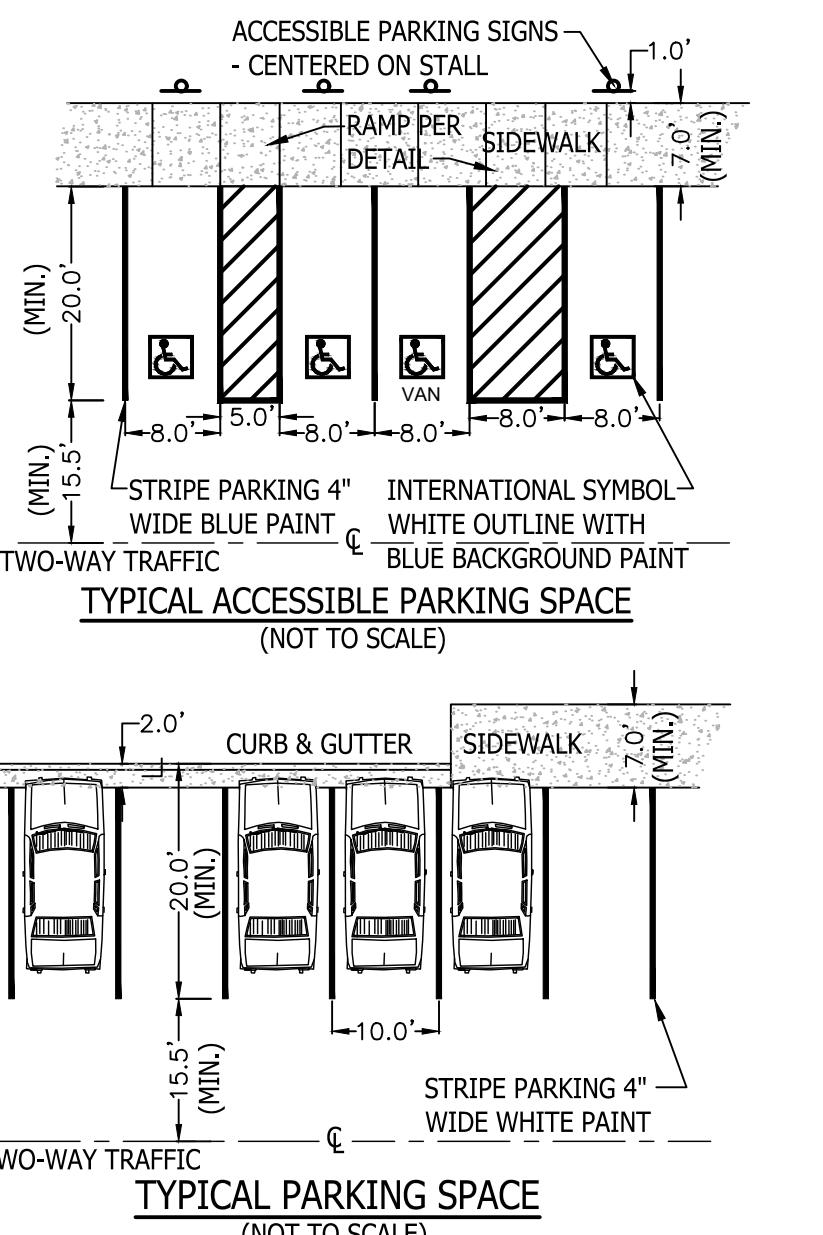
NOTE: WHITE
MEMBRANE
CURING
COMPOUND PER
ASTM C-309
TYPE 2 SPRAYED
AS DIRECTED

NOTE: CURING
COMPOUND
APPLICATION
APPLIES TO ALL
CURB & GUTTER

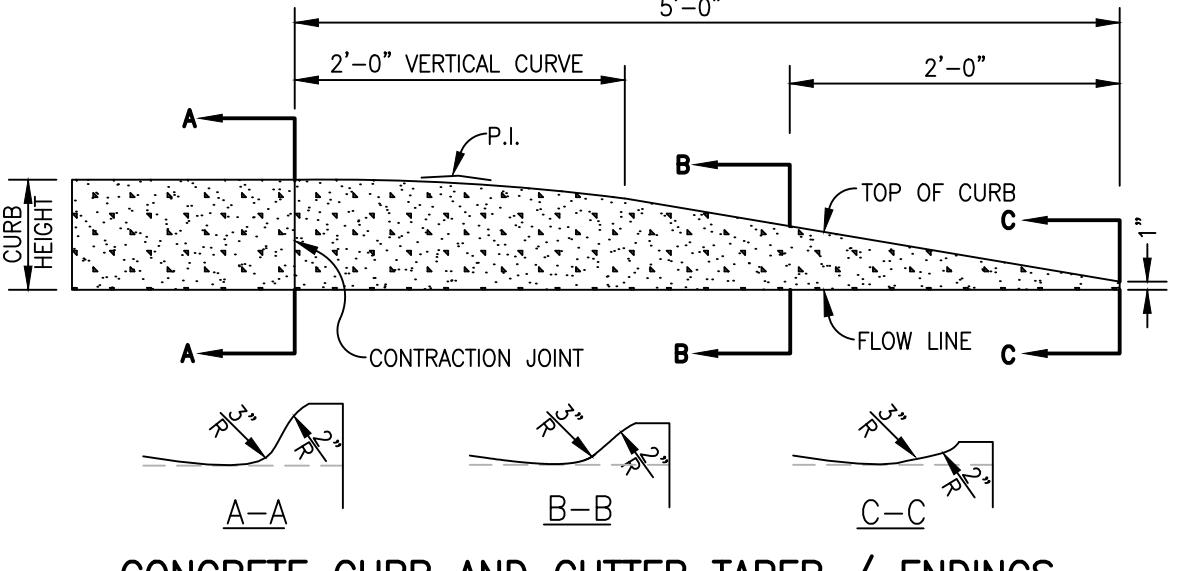
NOTE: INSTALL RUBBERIZED EXPANSION JOINT MATERIAL (PER VILLAGE
STANDARD) WHERE NEW CURB MEETS EXISTING, AT STRUCTURES, AT
SPRING POINTS OF INTERSECTING STREETS & AT 400-FT INTERVALS IN
CONTINUOUS CURB LINES. CONTRACTION JOINTS AT 40-FT INTERVALS



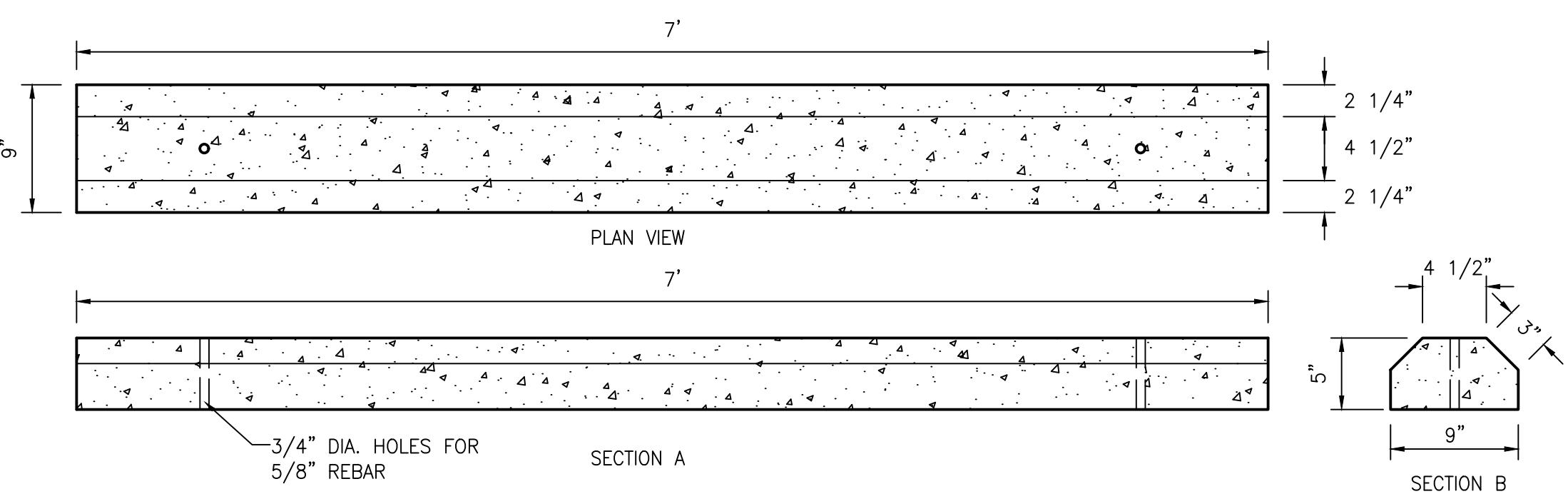
ADA BARRIER-FREE SPACE SIGN DETAIL
(NOT TO SCALE)



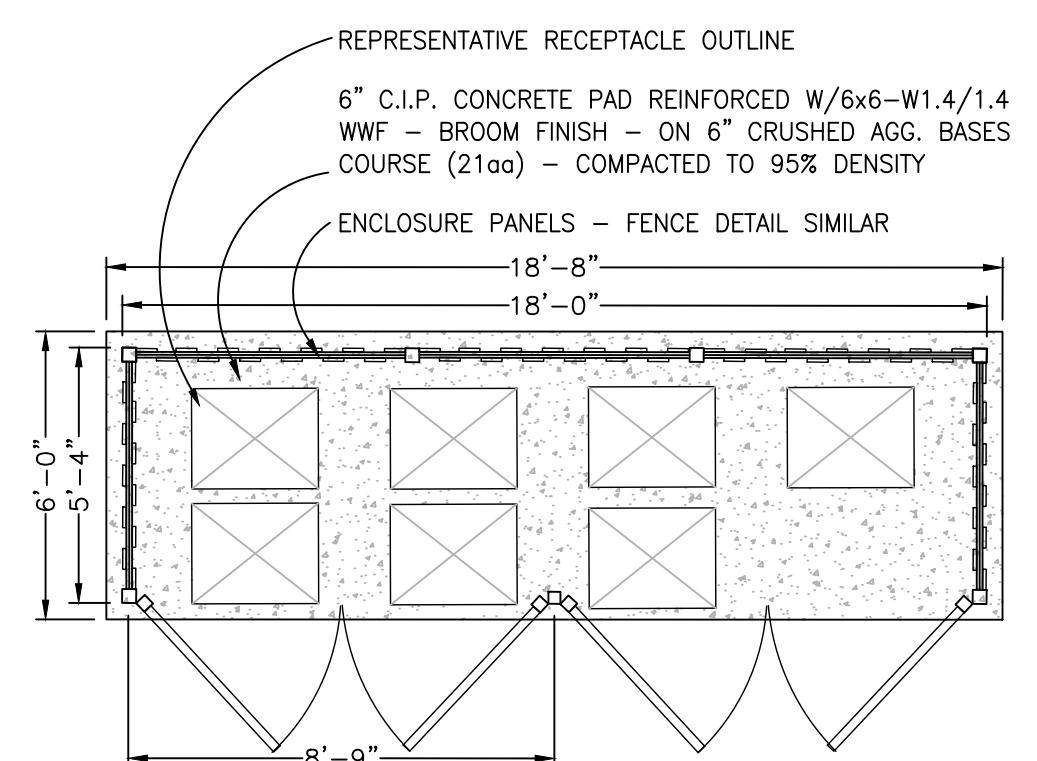
TYPICAL PARKING SPACE
(NOT TO SCALE)



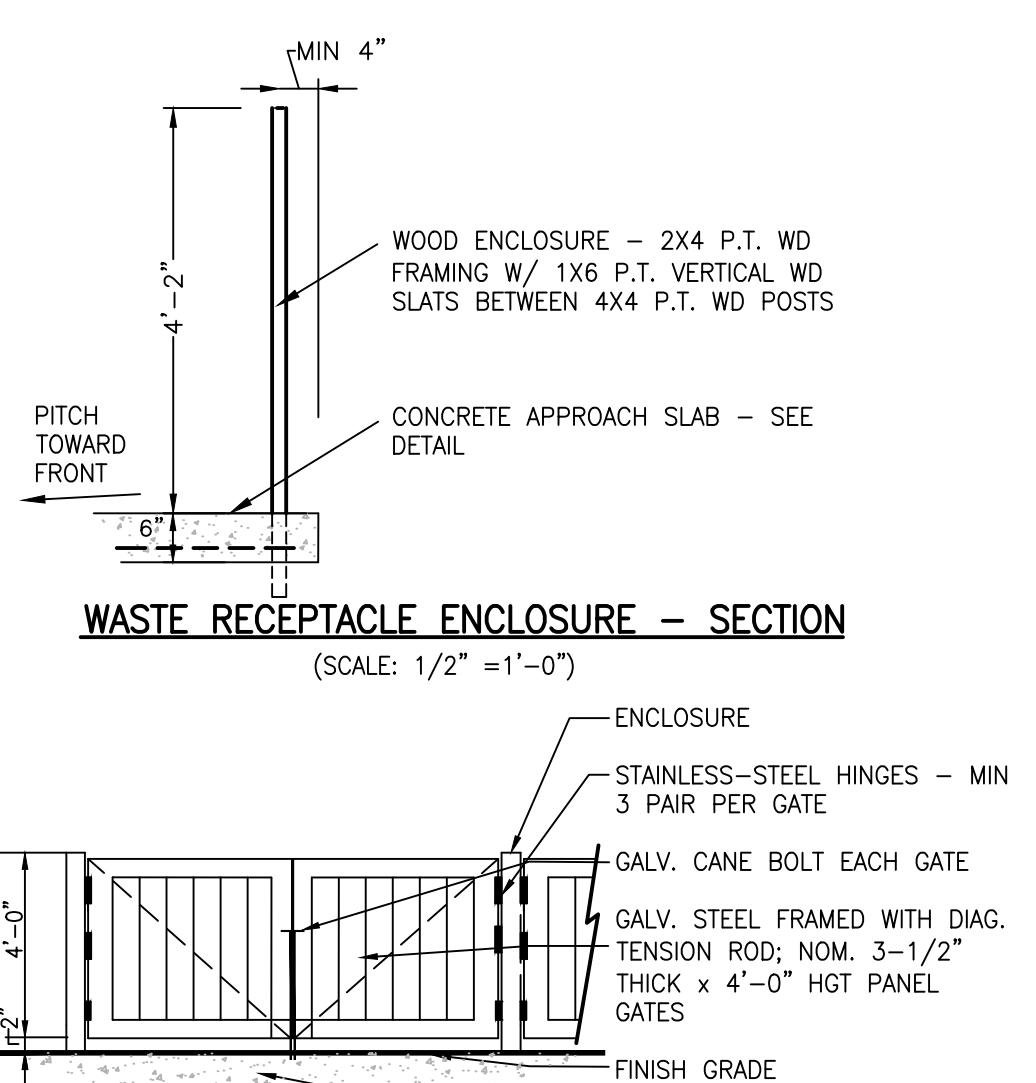
CONCRETE CURB AND GUTTER TAPER / ENDINGS
(NOT TO SCALE)



CONCRETE WHEEL STOP DETAIL
(NOT TO SCALE)



WASTE RECEPTACLE ENCLOSURE - SECTION
(SCALE: 1/2"=1'-0")



WASTE RECEPTACLE ENCLOSURE GATE ELEVATION
(SCALE: 1/4"=1'-0")

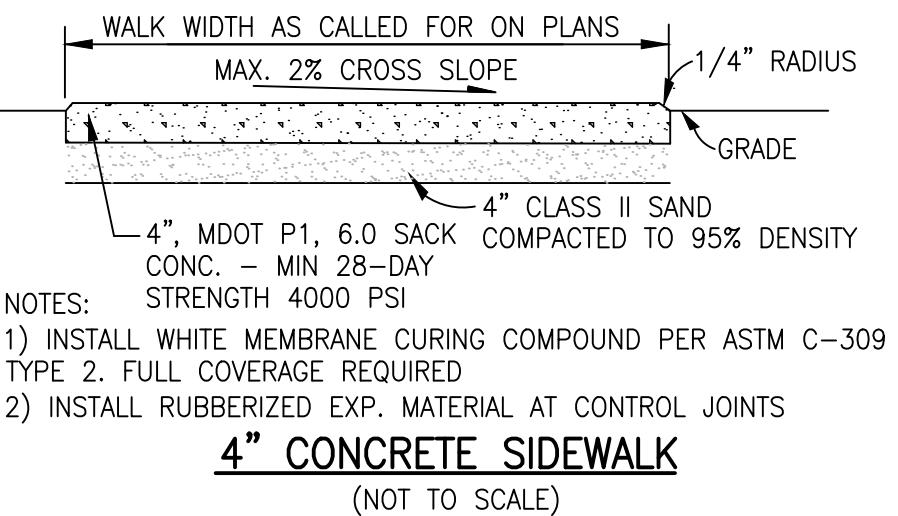
**FOR SITE PLAN APPROVAL ONLY!
NOT FOR CONSTRUCTION**

**SEE SHEET 2 FOR GENERAL
NOTES AND LEGEND**

1.5" MDOT 5E3 WEARING COURSE
2.5" MDOT 13A LEVELING COURSE
EXISTING AGGREGATE BASE
(MINIMUM 8" DEPTH REQUIRED)
NATIVE SUB-BASE

ASPHALT PAVEMENT SECTION (COMM. PARKING)
(NOT TO SCALE)

NOTE:
SOIL BORING / EXCAVATION TO BE CONDUCTED PRIOR TO SITE
CONSTRUCTION ACTIVITIES TO DETERMINE EXISTING BASE COURSE
DEPTH. IF DETERMINED TO BE INSUFFICIENT IT WILL BE
SUPPLEMENTED WITH 21AA STONE TO COME INTO COMPLIANCE



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517.546.4836 FAX 517.546.1670

GRANT'S PLACE APARTMENTS
575 LONG POINT DRIVE
POKEL, MI 48843
517-720-1034

B5 CONTRACTING SERVICES

PROJECT:	
PREPARED FOR:	
TITLE:	
NO. BY:	REVISION PER
DESIGNED BY: PC	
DRAWN BY: PC	
CHECKED BY:	
SCALE: AS NOTED	
JOE NO. 25-393	
DATE 12/3/25	
SHEET NO. C8	
BOSS BE	Engineering

AutoCAD PDF Smallest File.pcd

G:\25-393\DW0\SP-CP25-393-BASE SP.dwg 12/15/2025 2:24:17 PM, patrick

SEE SHEET 2 FOR GENERAL NOTES AND LEGEND

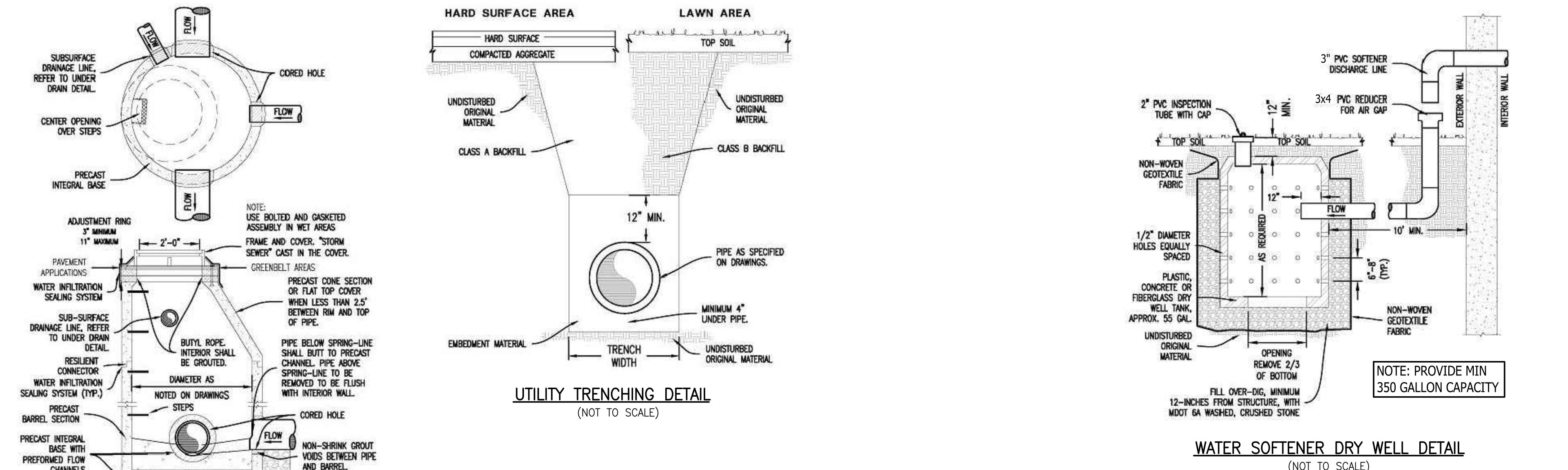
<p>SECTION 33 06 00 TRACE WIRE AND LOCATOR TAPE</p> <p>PART 1 GENERAL</p> <p>1.01 SECTION INCLUDES</p> <ul style="list-style-type: none"> A. Trace wire on all buried: <ul style="list-style-type: none"> 1. Sanitary mains and service leads; 2. Water mains and service leads; B. Detectable Locator Tape on all buried: <ul style="list-style-type: none"> 1. Sanitary mains and service leads; 2. Water mains and service leads; <p>1.02 RELATED REQUIREMENTS</p> <ul style="list-style-type: none"> A. Section 33 14 16 - Water Pipe; B. Section 33 31 13 - Sanitary Sewer Piping; C. Section 33 31 23 - Sanitary Force Main Piping; <p>1.03 REFERENCE STANDARDS</p> <ul style="list-style-type: none"> A. APWA UCC - American Public Works Association - Uniform Color Code for Marking Underground Facilities, 1999. <p>1.04 SUBMITTALS</p> <ul style="list-style-type: none"> A. See Section 01 30 00 - Administrative Requirements, for submittal procedures. B. Product Data: Provide trace wire, trace box, wire connectors and grounding materials. C. Project Record Documents <ul style="list-style-type: none"> 1. Accurately record actual locations of grounding anodes, trace wire routing, connectors, and trace boxes. D. Manufacturer's Qualification Statement. <p>PART 2 PRODUCTS</p> <p>2.01 GENERAL</p> <ul style="list-style-type: none"> A. All trace wire and trace wire products shall be domestically manufactured in the U.S.A. B. Trace Wire <ul style="list-style-type: none"> 1. Open Cut: <ul style="list-style-type: none"> a. Trace wire shall be #12AWG Copper Clad Steel, High Strength with minimum 450 lb. break load, with minimum 30 mil HDPE insulation thickness. b. Manufacturers: <ul style="list-style-type: none"> 1) Copperhead Industries, LLC, Superflex 1230-HS or heavier as required for application: www.copperhead.com <p>Technical Standards For Design and Construction 33 06 - 1 TRACE WIRE AND LOCATOR TAPE</p> <p>January 1, 2021</p> <p>Page 095</p> <p>2.02 Trace Box:</p> <ul style="list-style-type: none"> 1. At Grade applications: <ul style="list-style-type: none"> a. At grade terminal trace box shall include terminal connection lid with "sewer" or "water" cast into the cap. b. Manufacturers: <ul style="list-style-type: none"> 1) Copperhead Industries, LLC, Snakepit LD14"2T-ADJ-SW (lawn areas), CD14"2T-SW (concrete driveways and sidewalks), RB14"2T-SW (all other areas): www.copperheadwire.com 2) Pro-Line Safety Products Company: 4 AWG (7/32") 7x7 SST304 PE45; c. Substitutions: See Section 01 60 00 - Product Requirements. <p>Technical Standards For Design and Construction 33 06 - 2 TRACE WIRE AND LOCATOR TAPE</p> <p>January 1, 2021</p> <p>Page 096</p> <p>2.03 Wire Connectors:</p> <ul style="list-style-type: none"> 1. All manline trace wires must be interconnected in intersections, at manline tees and manline crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. At crosses, the four wires shall be joined using a 4-way connector. Use of 3-way connectors with a short jumper wire between them is an acceptable alternative. 2. Direct Burial Wire Connectors shall include 3-way lockable connectors and manline to lateral lug connectors specifically manufactured for use in underground trace wire installation. Connectors shall be dielectric silicon filled to prevent moisture and corrosion, and shall be installed in a manner so as to prevent any unsheathed wire exposure. 3. Manufacturers: <ul style="list-style-type: none"> a. Copperhead Industries, LLC, Locking Connector LSC1230 and 3WB-01: www.copperhead.com. b. Pro-Line Safety Products Company: T-LUG-SS - TRACER-LOCK DB Connector w/line tap min #18-8: http://www.primesafetys.com c. Substitutions: See Section 01 60 00 - Product Requirements. <p>Technical Standards For Design and Construction 33 06 - 3 TRACE WIRE AND LOCATOR TAPE</p> <p>January 1, 2021</p> <p>Page 097</p> <p>2.04 Grounding:</p> <ul style="list-style-type: none"> 1. All manline trace wires must be interconnected in intersections, at manline tees and manline crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. At crosses, the four wires shall be joined using a 4-way connector. Use of 3-way connectors with a short jumper wire between them is an acceptable alternative. 2. 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Locator tape shall be installed over all manholes, valves, and other structures. 3. Where the anode wire will be connected to a trace wire access box, a minimum of 2 feet of excess/slack wire is required after meeting final elevation. <p>Technical Standards For Design and Construction 33 06 - 5 TRACE WIRE AND LOCATOR TAPE</p> <p>January 1, 2021</p> <p>Page 099</p>		<p>3.01 INSTALLATION - GENERAL</p> <p>3.02 INSTALLATION - WATER SYSTEM</p> <p>3.03 INSTALLATION - WATER SYSTEM</p> <p>3.04 INSTALLATION - LOCATOR TAPE</p> <p>3.05 PROHIBITED PRODUCTS AND METHODS</p> <p>3.06 FIELD QUALITY CONTROL</p> <p>END OF SECTION</p>
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HOWELL, MI 48833 FAX 517.546.1670

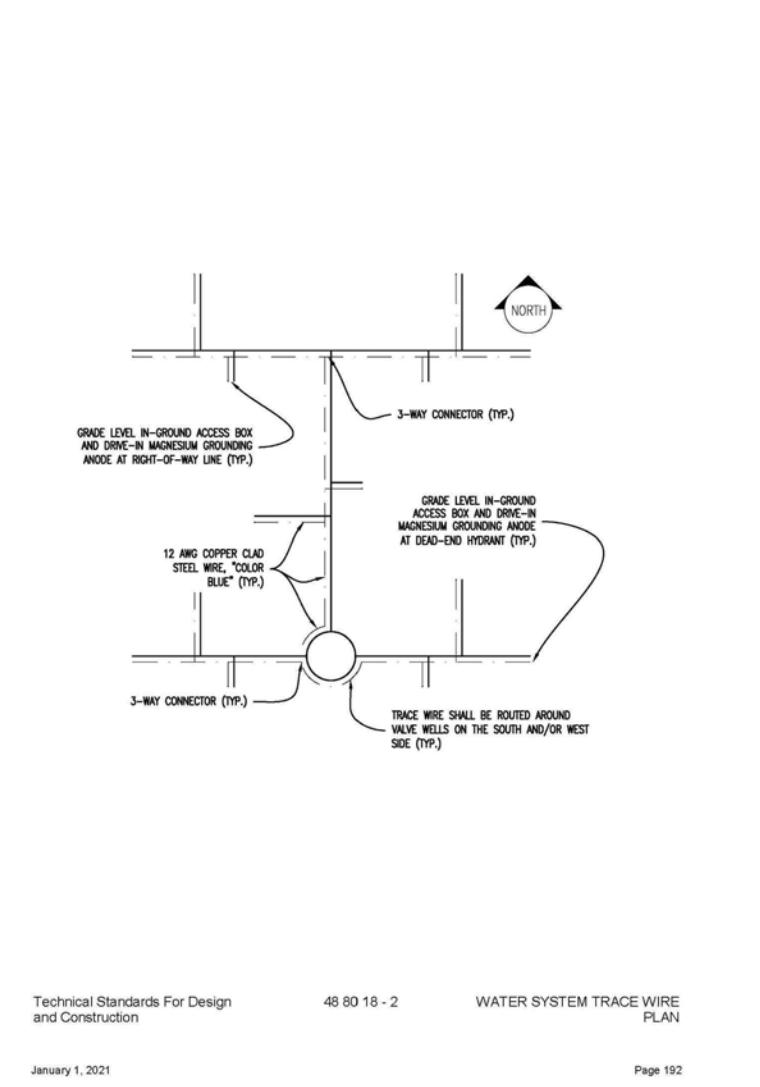
GRANT'S PLACE APARTMENTS
5555 LONG PONTE DRIVE
517.262.13945
January 1, 2021

PINCKNEY STANDARD DETAILS AND SPECIFICATIONS
48-80-18-2 WATER SYSTEM TRACE WIRE PLAN
January 1, 2021

PROJECT: PREPARED FOR: REVISION PER DATE
DESIGNED BY: PC DRAWN BY: PC CHECKED BY: PC
SCALE AS NOTED
JOE NO. 25-393 DATE 12/3/25
SHEET NO. C9 BE Engineering



WATER SOFTENER DRY WELL DETAIL
(NOT TO SCALE)



WATER SYSTEM TRACE WIRE PLAN
January 1, 2021

STANDARD SANITARY (MONITORING) MANHOLE
(NOT TO SCALE)

FOR SITE PLAN APPROVAL ONLY!
NOT FOR CONSTRUCTION