DRAWINGS FOR PROPOSED IMPROVEMENTS RAILROAD PARK IMPROVEMENTS

IN THE CITY OF RIVERSIDE, WASHINGTON COUNTY, IOWA (ENGLISH RIVER WATERSHED)



DESIGN STANDARDS AND REFERENCE DRAWINGS

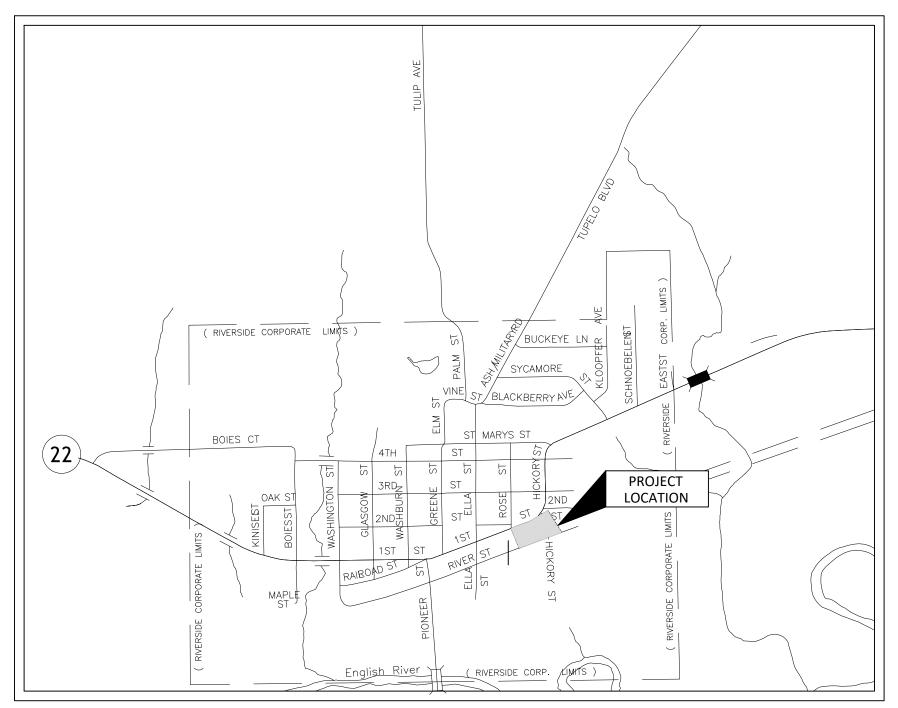
THE PROPOSED IMPROVEMENTS INCLUDED IN THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH CITY OF RIVERSIDE REQUIREMENTS AND THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS), LATEST ADDITION, UNLESS NOTED OTHERWISE ON THE PLANS.

NO DESIGN EXCEPTIONS REQUIRED

TC-211

THE FOLLOWING SUDAS FIGURES ARE INCLUDED BY REFERENCE:

FIGURE	TITLE
3010.101	TRENCH BEDDING AND BACKFILL ZONES
3010.102	RIGID GRAVITY PIPE TRENCH BEDDING
3010.103	FLEXIBLE GRAVITY PIPE TRENCH BEDDING
4020.211	PIPE CONNECTIONS FOR STORM SEWER
4030.221	RCP APRON SECTION FOOTING
4030.222	CIRCULAR CONCRETE APRONS
4030.223	ARCH AND ELLIPTICAL CONCRETE PIPE APRONS
4030.224	CONCRETE PIPE APRON GUARD
4030.225	METAL PIPE APRONS AND APRON GUARDS
4040.231	SUBDRAINS
4040.232	SUBDRAIN CLEANOUTS
4040.233	SUBDRAIN OUTLETS
6010.501	SINGLE OPEN-THROAT CURB INTAKE, SMALL BOX
6010.505	DOUBLE GRATE INTAKE
6010.512	CIRCULAR AREA INTAKE
6010.603	CASTINGS FOR GRATE INTAKES
6010.604	CASTINGS FOR AREA INTAKES
7010.101	JOINTS
7010.102	PCC CURB DETAILS
7010.901	PCC PAVEMENT JOINTING
7010.904	TYPICAL JOINTING LAYOUT
7030.204	GENERAL FEATURES OF AN ACCESSIBLE SIDEWALK
7030.205	GENERAL SIDEWALK AND CURB RAMP DETAILS
7030.206	CURB RAMPS OUTSIDE OF INTERSECTION RADIUS
7030.207	CURB RAMP FOR CLASS B OR C SIDEWALK
7030.210	DETECTABLE WARNING PLACEMENT
9040.102	FILTER BERM AND FILTER SOCK
9040.103	ROLLED EROSION CONTROL PRODUCT (RECAP) INSTALLATION ON SLOPES
9040.110	RIP RAP FOR PIPE OUTLET ONTO FLAT GROUND
9040.111	RIP RAP APRON FOR PIPE OUTLET INTO CHANNEL
9040.119	SILT FENCE
THE FOLLOWING ID	OT STANDARD ROAD PLANS ARE INCLUDED BY REFERENCE:
FIGURE	TITLE_
TO 244	LANE CLOCUPE ON LOWAY OF HATE BOAR



CITY OF RIVERSIDE, IOWA

APPLICANT INFORMATION

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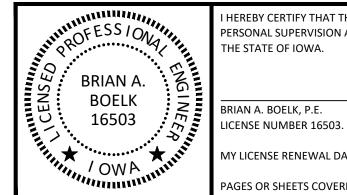
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I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

BRIAN A. BOELK, P.E. DATE

SHEET INDEX

COVER SHEET

LEGEND AND GENERAL NOTES

PAVING AND GRADING

SITE AND UTILITY PLAN
PLAYGROUND LAYOUT

RESTORATION PLAN

TRAFFIC CONTROL

DETAILS

DETAILS

GENERAL NOTES & TYPICAL SECTION

HICKORY STREET PLAN & PROFILE

TOPOGRAPHIC SURVEY AND REMOVAL

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MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022.

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LANE CLOSURE ON LOW VOLUME ROAD

LEGEND: UTILITIES **EXISTING PROPOSED** COMMUNICATIONS OVERHEAD LINE ELECTRIC FIBER OPTIC **SANITARY SEWER STORM SUBDRAIN** WATER: DOMESTIC COMM. HANDHOLE C COMM. PEDESTAL GUY WIRE ANCHOR UTILITY POLE $\bigcirc \Diamond$ \bigcirc UTILITY POLE WITH LIGHT LIGHT POLE **ELECTRIC TRANSFORMER** FO FIBER OPTIC HANDHOLE GAS VALVE SANITARY MANHOLE SANITARY CLEANOUT STORM MANHOLE STORM INTAKE HYDRANT WATER VALVE **CURB STOP** SITE **EXISTING PROPOSED** ---(100)CONTOUR - INDEX CONTOUR - INTERMEDIATE — 101 — (100 FENCE: BARB WIRE FENCE: CHAIN LINK FENCE: CONSTRUCTION FENCE: VINYL FENCE: WIRE ---//--//-- ---//--//--//--FENCE: WOOD STREAM CENTERLINE SIGN **SHRUBBERY** SEE LANDSCAPE PLAN TREE: DECIDUOUS SEE LANDSCAPE PLAN TREE: CONIFEROUS SEE LANDSCAPE PLAN

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS), UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 2. THE LOCATIONS OF UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS PLOTTED ON THIS DRAWING ARE APPROXIMATE ONLY AND WERE OBTAINED FROM PLANS OF RECORD. THERE MAY BE OTHER EXISTING UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS NOT KNOWN AND MAY NOT SHOWN ON THIS DRAWING.
- 3. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN CONSTRUCTION LIMITS OF THE SCHEDULE PRIOR TO EACH STAGE OF CONSTRUCTION.
- 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT CRITICAL LOCATIONS TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION.
- IOWA CODE 480, UNDERGROUND FACILITIES INFORMATION, REQUIRES VERBAL NOTICE TO IOWA ONE-CALL 1-800-292-8989, NOT LESS THAN 48 HOURS BEFORE EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.
- 6. NOTIFY THE APPROPRIATE GOVERNING AUTHORITY 48 72 HOURS PRIOR TO BEGINNING CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY. THE CITY OF RIVERSIDE SHALL BE THE PUBLIC AGENCY RESPONSIBLE FOR INSPECTION DURING CONSTRUCTION OF THE PUBLIC PORTIONS OF THE PROJECT.
- 7. NO WORK SHALL BE PERFORMED BEYOND THE PROJECT LIMITS WITHOUT PRIOR AUTHORIZATION FROM THE OWNER OR OWNER'S REPRESENTATIVE.
- 8. PROVIDE TRAFFIC AND PEDESTRIAN CONTROL MEASURES (SIGNS, BARRICADES, FLAGGERS, ETC.) IN COMPLIANCE WITH PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION.
- 9. ADJUST ALL VALVES, MANHOLES, CASTINGS, GAS VENTS, ETC., TO MATCH THE NEW SURFACE. ADJUSTMENT SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO THE CONSTRUCTION. AT NO ADDITIONAL COST TO THE OWNER, REPAIR ANY DAMAGE TO SAID STRUCTURES AND APPURTENANCES THAT OCCUR DURING CONSTRUCTION.
- 10. REPLACE ANY PROPERTY MONUMENTS REMOVED OR DESTROYED BY CONSTRUCTION. MONUMENTS SHALL BE SET BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF IOWA.
- 11. WHERE UTILITIES ARE BACKFILLED, CONTRACTOR IS TO PROVIDE TRENCH BACKFILL TESTING RESULTS TO CITY OF RIVERSIDE. BACKFILL UTILITIES UNDER PAVEMENT WITH SUITABLE NATIVE MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.

 TRENCH COMPACTION TESTING SHALL BE IN ACCORDANCE WITH SUDAS SECTION 3010 2.06

GRADING NOTES

- 1. STRIP EXISTING VEGETATION WITHIN THE GRADING LIMITS AND AREAS TO RECEIVE FILL. STOCKPILE ON-SITE FOR REUSE IF SUITABLE.
- PROOF ROLL ALL FILL AREAS TO IDENTIFY SOFT OR DISTURBED AREAS IN THE SUBGRADE. ALL UNSUITABLE MATERIAL IDENTIFIED SHALL BE REMOVED AND RECOMPACTED. PROOFROLL WITH 25 TON MINIMUM GROSS VEHICLE WEIGHT.
- 3. REMOVE AND RECOMPACT AREAS OF SUBGRADE WHICH ARE SOFT OR UNSTABLE TO MEET SPECIFIED LIMITS FOR DENSITY AND MOISTURE CONTENT.
- 4. SCARIFY EXISTING SUBGRADE TO A DEPTH OF 12 INCHES AND RECOMPACT TO 98% OF STANDARD PROCTOR DENSITY (ASTM D698) PRIOR TO PLACEMENT OF FILL.
- 5. DO NOT PLACE, SPREAD, OR COMPACT ANY FILL MATERIAL DURING UNFAVORABLE WEATHER CONDITIONS AND DO NOT RESUME COMPACTION OPERATIONS UNTIL MOISTURE CONTENT AND DENSITY OF IN-PLACE FILL MATERIAL ARE WITHIN SPECIFIED LIMITS.
- 6. PLACE FILL MATERIAL IN 9" MAXIMUM LIFTS.
- 7. FILLS PLACED BELOW LAWN AREAS SHALL BE COMPACTED TO 90% OF MATERIALS MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D698).
- 8. SCARIFY SUBGRADE TO DEPTH OF 3 INCHES WHERE TOPSOIL IS SCHEDULED. SCARIFY AREAS WHERE EQUIPMENT USED FOR HAULING AND SPREADING TOPSOIL HAS CAUSED COMPACTED SUBSOIL.
- 9. FILL MATERIAL OBTAINED FROM OFF-SITE SOURCES SHALL BE SOIL OR SOIL AND ROCK MIXTURE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES. IT SHALL CONTAIN NO ROCKS OR LUMPS OF 6 INCHES IN GREATEST DIMENSION AND NOT MORE THAN 15% OF THE ROCKS OR LUMPS SHALL BE LARGER THAN 2-1/2 INCHES IN GREATEST DIMENSION.
- 10. SCARIFY AND RECOMPACT THE TOP 9" OF SUBGRADE IN ALL CUT AREAS AFTER ROUGH GRADING IS COMPLETED. COMPACT THE ENTIRE PAVING SUBGRADE TO 95% STANDARD PROCTOR DRY DENSITY TO WITHIN 1.0' OF FINAL SUBGRADE. THE FINAL 1.0' OF FILL TO BE COMPACTED TO 98% STANDARD PROCTOR DRY DENSITY (ASTM D698).
- 11. IN AREAS TO RECEIVE ADDITIONAL FILL OVER EXISTING FILL MATERIALS. REMOVE TOP 12" OF MATERIAL AND SCARIFY AND RECOMPACT THE NEXT 9" OF RESULTING SUBGRADE. COMPACT RESULTING SUBGRADE TO 95% STANDARD PROCTOR DRY DENSITY. SUBSEQUENT FILL TO BE COMPACTED TO 95% STANDARD PROCTOR DRY DENSITY TO WITHIN 1.0' OF FINAL SUBGRADE. THE FINAL 1.0' OF FILL TO BE COMPACTED TO 98% STANDARD PROCTOR DRY DENSITY (ASTM D698).
- 12. FINISH CONTOURS SHOWN ARE TO TOP OF FINISHED GRADE OR TO TOP OF TOPSOIL.

SITE PREPARATION NOTES

- 1. PROTECT ADJACENT PROPERTY DURING DEMOLITION, IF APPLICABLE
- 2. DEMOLITION LIMIT LINE IS THE EXISTING PROPERTY LINE UNLESS NOTED OTHERWISE.
- 3. MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
- 4. PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL (EXCAVATED MATERIAL OR BROKEN CONCRETE) WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. NO MATERIAL SHALL BE PLACED WITHIN THE EASEMENTS, UNLESS SPECIFICALLY STATED IN THE PLANS OR APPROVED BY THE ENGINEER. DISPOSAL SITES MUST BE APPROVED BY THE ENGINEER. CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND TEMPORARY HAUL ROADS TO PREVENT THE SPREAD OF DUST. OFF-SITE DISPOSAL SHALL BE IN ACCORDANCE WITH THE APPLICABLE GOVERNMENTAL REGULATIONS.
- KEEP ADJACENT PUBLIC STREETS FREE FROM SOIL AND DEBRIS GENERATED BY THE PROJECT. CLEAN SOIL AND DEBRIS FROM THE ADJACENT STREETS ON A DAILY BASIS.
- 6. DURING CONSTRUCTION, CONTROL DUST SPREADING FROM ALL WORK AND STAGING AREAS
- 7. REMOVAL OR ABANDONMENT OF PUBLIC UTILITIES SHALL BE FULLY COORDINATED WITH APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
- 8. ANY EXISTING FACILITIES (CURBS, PAVEMENT, UTILITIES, ETC.) THAT THE CONTRACTOR'S OPERATIONS DAMAGE SHALL BE REPAIRED BY THAT CONTRACTOR AT HIS/HER COST.
- REMOVE ALL DESIGNATED STREETS, DRIVEWAYS, ETC. IN THEIR ENTIRETY. BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED IN ACCORDANCE WITH GRADING NOTES.
- 10. WHERE A SECTION OF PAVEMENT, CURB AND GUTTER OR SIDEWALK IS CUT OR OTHERWISE DAMAGED BY THE CONTRACTOR, THE ENTIRE SECTION SHALL BE REMOVED AND REPLACED. PAVEMENT, CURBS, GUTTERS AND SIDEWALKS SHALL BE REMOVED A MINIMUM OF TWO FEET BEYOND THE EDGE OF THE TRENCH CUT AND TO THE NEAREST IOINT
- 11. SAWCUT EDGES OF PAVEMENT FULL DEPTH PRIOR TO REMOVAL TO PREVENT DAMAGE TO ADJACENT SLABS AND FIXTURES.
- 12. IF APPLICABLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXISTING CONCRETE STRUCTURES ON THE SITE AS SHOWN ON THE PLANS. THE REMOVAL INCLUDES DRIVEWAYS, CURB AND GUTTER, SIDEWALK, AND BASEMENT FOUNDATION FOOTINGS, FLOOR AND WALLS. THE REMOVAL ALSO INCLUDES STORM SEWER INTAKES AND PIPE AS SHOWN ON THE PLANS.
- 13. IF APPLICABLE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT TREES AND SHRUBS NOTED ON THE PLANS TO REMAIN IN PROJECT AREA FROM DAMAGE DUE TO CONSTRUCTION ACTIVITY. PROTECTION INCLUDES, BUT IS NOT LIMITED TO, CONSTRUCTION FENCING AROUND THE DRIP LINE OF TREES AND PROHIBITING VEHICLE TRAFFIC WITHIN THE DRIP LINE OF TREES.
- 14. REMOVAL AND DISPOSAL OF EXISTING TREES AND SHRUBS WITHIN CONSTRUCTION LIMITS SHALL BE INCIDENTAL TO THE GRADING PORTION OF THE PROJECT. STUMPS ARE TO BE GROUND TO TWO FEET BELOW FINISHED GRADE.
- 15. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF A TILE IS ENCOUNTERED AND SHALL INDICATE THE METHOD OF RESOLVING THE CONFLICT. THE ENGINEER SHALL APPROVE THE PROPOSED METHOD. THE LOCATION OF THE FIELD TILE SHALL BE RECORDED ON THE CONSTRUCTION RECORD DOCUMENTS.

EXISTING FIELD TILE LINES ENCOUNTERED IN THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR IN ONE OF THE FOLLOWING WAYS:

- A. CONNECT TILE TO THE NEAREST STORM SEWER.
- B. DAYLIGHT TO FINISHED GROUND.
- C. REPAIR TILE AND MAINTAIN SERVICE.

SURFACE RESTORATION NOTES

- 1. ONLY DISTURBED AREAS NOT PAVED OR HARD SURFACED, ADJACENT TO THE PROPOSED BUILDING AND PAVING, SHALL RECEIVE MINIMUM 4" TOPSOIL. SCARIFY AREAS TO RECEIVE TOPSOIL TO A MIN. DEPTH OF 4". REMOVE ALL STONES, WOOD AND DEBRIS LARGER THAN 2" FROM AREAS TO RECEIVE TOPSOIL. DO NOT COMPACT TOPSOIL.
- 2. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED IN ACCORDANCE WITH SUDAS SECTION 9010.
- 3. SEED ALL DISTURBED AREAS NOT TO BE HARD SURFACED, AND NOT TO HAVE TOPSOIL SPREAD, WITH TYPE 1 EROSION CONTROL MIXTURE PER SUDAS SECTION 9010.
- 4. APPLY SEED AT THE RATES INDICATED IN THE PROJECT SPECIFICATIONS.
- 5. MAINTAIN SEEDED AREAS UNTIL AN ADEQUATE STAND OF GRASS HAS BEEN ESTABLISHED. RESEED ANY AREAS AS NECESSARY TO STABILIZE SOIL PER PROJECT SPECIFICATIONS.
- 6. EXISTING FACILITIES (CURBS, PAVEMENT, UTILITIES, ETC.) THAT ARE TO REMAIN AND DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.

EROSION CONTROL NOTES

- THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION CONTROL, SEDIMENT, AND DUST CONTROL IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT'S STORM WATER POLLUTION PREVENTION PLAN AND THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS), UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL INCORPORATE ALL NECESSARY EROSION CONTROL FEATURES INTO THE PROJECT PRIOR TO DISTURBING THE SOIL.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES A MINIMUM OF ONCE PER WEEK. IF A CONTROL MEASURE HAS BEEN REDUCED IN CAPACITY BY 50% OR MORE, THE CONTRACTOR SHALL RESTORE SUCH FEATURES TO THEIR ORIGINAL CONDITION IMMEDIATELY, WEATHER PERMITTING.
- 4. ERECT SILT FENCE AS SHOWN ON THE PLANS TO LIMIT LOSS OF MATERIAL FROM THE SITE. DEVICES TO REMAIN IN PLACE AND TO BE MAINTAINED UNTIL A PERMANENT GROUND COVER IS ESTABLISHED.
- 5. MINIMIZE SOIL EROSION BY MAINTAINING ALL EXISTING VEGETATIVE GROWTH WITHIN THE GRADING LIMITS FOR AS LONG AS PRACTICAL.
- 6. INSTALL A SILT FENCE AROUND ALL STOCKPILED TOPSOIL.
- 7. THE CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING FOR ALL AREAS THAT ARE DISTURBED AND OPERATIONS WILL NOT COMMENCE OR PERMANENT SEEDING WILL NOT BE COMPLETED IN LESS THAN 14 DAYS.
- 8. SEQUENCE OF EROSION AND SEDIMENT CONTROL EVENTS:
 - A. INSTALL INLET PROTECTION AROUND EXISTING INTAKES AS INDICATED ON THE SITE CONSTRUCTION PLAN. USE THESE LOW AREAS AS SEDIMENT BASINS DURING CONSTRUCTION.
 - B. INSTALL PERIMETER SILT FENCE AS INDICATED ON THE SITE CONSTRUCTION PLAN.
 - C. INSTALL SILT FENCE AROUND ANY TOPSOIL OR EXCESS SOIL STOCKPILES. APPLY TEMPORARY SEEDING TO ALL TOPSOIL OR EXCESS SOIL STOCKPILES.
 - D. INSTALL STONE SUBBASE ON STREET AREAS FOLLOWING COMPLETION OF GRADING.
 - E. APPLY TEMPORARY SEEDING TO ALL DENUDED AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR 14 DAYS OR MORE. FERTILIZE AND LIME IF NEEDED. APPLY MULCH ON SLOPES GREATER THAN 4:1 (HORIZONTAL:VERTICAL).
 - F. DESTROY TEMPORARY SEEDING AND APPLY PERMANENT SEEDING TO ALL DISTURBED AREAS NOT TO BE HARD SURFACED. FERTILIZE AND MULCH PERMANENT SEEDING AS REQUIRED. APPLY MULCH AT 1.5 TO 2.0 TONS PER ACRE ON SLOPES GREATER THAN 4:1.
 - G. WHEN CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED WITH PERMANENT SEEDING, REMOVE ACCUMULATED SEDIMENT FROM ANY SEDIMENT BASINS, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVALS.

STORMWATER POLLUTION PREVENTION:

THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE KEPT ON THE CONSTRUCTION SITE AT ALL TIMES FROM THE DATE CONSTRUCTION ACTIVITIES BEGIN TO THE DATE OF FINAL STABILIZATION. THE CONTRACTOR SHALL MAINTAIN THE SWPPP PER THE REQUIREMENTS OF GENERAL PERMIT NO. 2. ALL OPERATORS/CONTRACTORS WORKING ONSITE MUST SIGN THE CERTIFICATION STATEMENT PROVIDED AND WILL BECOME CO-PERMITTEES ON THE NPDES GENERAL PERMIT NO. 2 FOR THIS SITE. ALL OPERATORS/SUBCONTRACTORS WORKING ONSITE SHALL BE SUPPLIED A COPY OF THE SWPPP BY THE CONTRACTOR AND MUST BE FAMILIAR WITH ITS CONTENTS. THE SWPPP MUST BE PERIODICALLY UPDATED TO SHOW CURRENT EROSION CONTROL PRACTICES PER THE REQUIREMENTS OF THE GENERAL PERMIT #2. UPDATED VERSIONS OF THE SWPPP WILL BE PROVIDED TO ALL OF THE OPERATORS/SUBCONTRACTORS WHOM ARE AFFECTED BY THE CHANGES MADE TO THE SWPPP. IT WILL BE THE DUTY OF THE CONTRACTOR TO SEE THAT THESE REQUIREMENTS ARE MET.

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GENERAL UTILITY NOTES

ALL PERMITS SHALL BE SECURED AND FEES SHALL BE PAID PRIOR TO START OF CONSTRUCTION.

- 1. VERIFY THE ELEVATION OF POSSIBLE CONFLICTING UTILITIES PRIOR TO CONSTRUCTING PROPOSED WATER MAINS, SANITARY SEWERS, STORM SEWERS, ETC. ANY CONFLICTS MUST IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION.
- 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT CRITICAL LOCATIONS TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION.
- 3. PROTECT EXISTING UTILITIES DURING CONSTRUCTION.
- 4. ADJUST ALL VALVES, MANHOLES, CASTINGS, GAS VENTS, ETC. TO MATCH THE NEW SURFACE. ADJUSTMENT SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO THE CONSTRUCTION. AT NO ADDITIONAL COST TO THE OWNER, REPAIR ANY DAMAGE TO SAID STRUCTURES AND APPURTENANCES THAT OCCUR DURING CONSTRUCTION.
- 5. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN AS-BUILTS REGARDING ASPECTS OF THE PROJECT WHICH DIFFER FROM THE CONTRACT DOCUMENTS. THIS INCLUDES BOTH EXISTING FACILITIES ENCOUNTERED AND PROPOSED FACILITIES CONSTRUCTED. THE INFORMATION SHALL INCLUDE LOCATION, DIMENSION AND MATERIAL DATA. THE LOCATION OF UNDERGROUND FACILITIES SHALL BE NOTED IF THEY DIFFER FROM THE PLANS BY MORE THAN 2 FEET HORIZONTALLY AND 0.5 FEET VERTICALLY OR ARE NOT SHOWN. FACILITIES CONSTRUCTED OR ENCOUNTERED ABOVE GROUND SHALL BE NOTED IF THEY DIFFER FROM THE PLANS BY MORE THAN 1 FOOT HORIZONTALLY AND 0.25 FEET VERTICALLY.
- 6. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY OF RIVERSIDE FOR ANY VARIANCE FROM THE APPROVED PLAN.

STORM SEWER NOTES

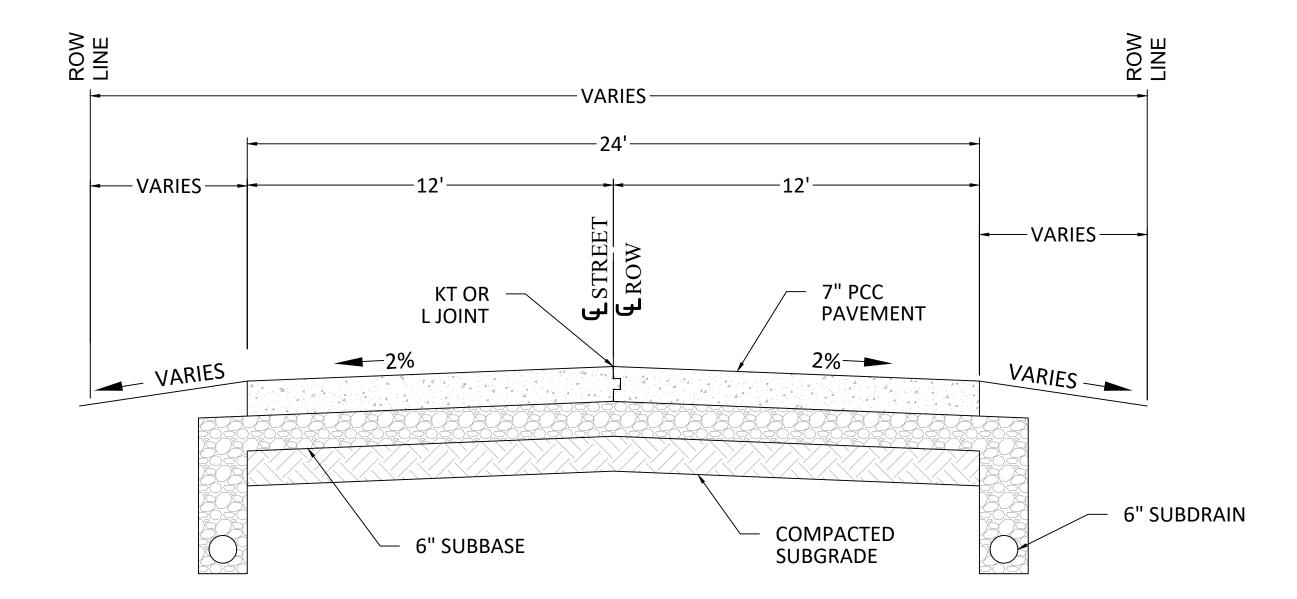
- 1. RCP STORM SEWER SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) TO DEPTH OF COVER UP TO 12' CONFORMING TO ASTM C76 OR AASHTO M170.
- 2. RCP STORM SEWER SHALL BE CONSTRUCTED WITH CLASS R-1 BEDDING PER SUDAS FIGURE 3010.102 (IDOT STANDARD ROAD PLAN SW-102). RCP STORM SEWERS SHALL HAVE GASKETED JOINTS. BACKFILL STORM SEWER MAINS AND SERVICES WITH SUITABLE NATIVE MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- 3. HIGH DENSITY POLYETHYLENE PIPE (HDPE) SHALL BE CORRUGATED WITH INTEGRALLY FORMED SMOOTH INTERIOR MEETING THE REQUIREMENTS OF THE STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) SECTION 4020.
- 4. HDPE STORM SEWER SHALL BE CONSTRUCTED WITH CLASS F-3 BEDDING. HDPE STORM SEWER SHALL BE BACKFILLED WITH GRANULAR BACKFILL AGGREGATE TO A MINIMUM OF 12" ABOVE THE TOP OF THE PIPE.
- 5. STORM SEWER LINES SHALL BE A MINIMUM OF 10' FROM WATER LINES RUNNING PARALLEL. AT CROSSINGS, A MINIMUM 18" SEPARATION MUST BE PROVIDED. SEE WATER MAIN NOTES FOR DETAILS ON CROSSING LOCATIONS.
- 6. ALL LINE AND GRADE CONTROL WILL BE DONE WITH A LASER BEAM, WITH GRADE CHECKS AT 25', 50' AND THEN EVERY 100' BETWEEN MANHOLES.
- 7. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN A RECORD DRAWING SET SHOWING LOCATIONS OF ALL STORM SEWER CONSTRUCTION. THE RECORD DRAWING SET WILL BE PROVIDED TO THE OWNER.
- 8. BACKFILL STORM SEWER MAIN AND SERVICES UNDER PAVEMENT WITH SUITABLE NATIVE MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY. TRENCH COMPACTION TESTING SHALL BE IN ACCORDANCE WITH SUDAS SECTION 3010 3.06.

PAVEMENT GENERAL NOTES

- 1. ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
- 2. ALL DIMENSIONS TO BACK-OF-CURB UNLESS NOTED OTHERWISE.
- 3. REMOVE AND REPLACE OR RESTORE ALL STREET SIGNS, PAVEMENT MARKINGS, SIDEWALK LAMPS, SIDEWALKS, STEPS, LANDSCAPE STRUCTURES, CURB AND GUTTER, STREETS, DRIVES AND ALL OTHER SURFACE STRUCTURES REMOVED OR OTHERWISE DAMAGED DURING THE COURSE OF THE WORK. SIDEWALKS SHALL BE REMOVED AND REPLACED TO NEAREST JOINT BEYOND CONSTRUCTION AREA.
- 4. COMPACT SUBGRADE BENEATH PAVEMENTS IN ACCORDANCE WITH GRADING NOTES.
- 5. GRANULAR SUBBASE FOR PAVEMENTS SHALL MEET THE LIMITS OF GRADUATION NO. 14 (MODIFIED SUBBASE) PER IOWA DOT STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4123.
- 6. PROOF-ROLL SUBGRADE PER SECTION 2115. REMOVE AND REPLACE UNSTABLE AREAS WITH SUITABLE COMPACTED MATERIAL.
- 7. ALL CURB AND GUTTER IS 6" STANDARD CURB PER SUDAS FIGURE 7010.102 UNLESS STATED OTHERWISE.

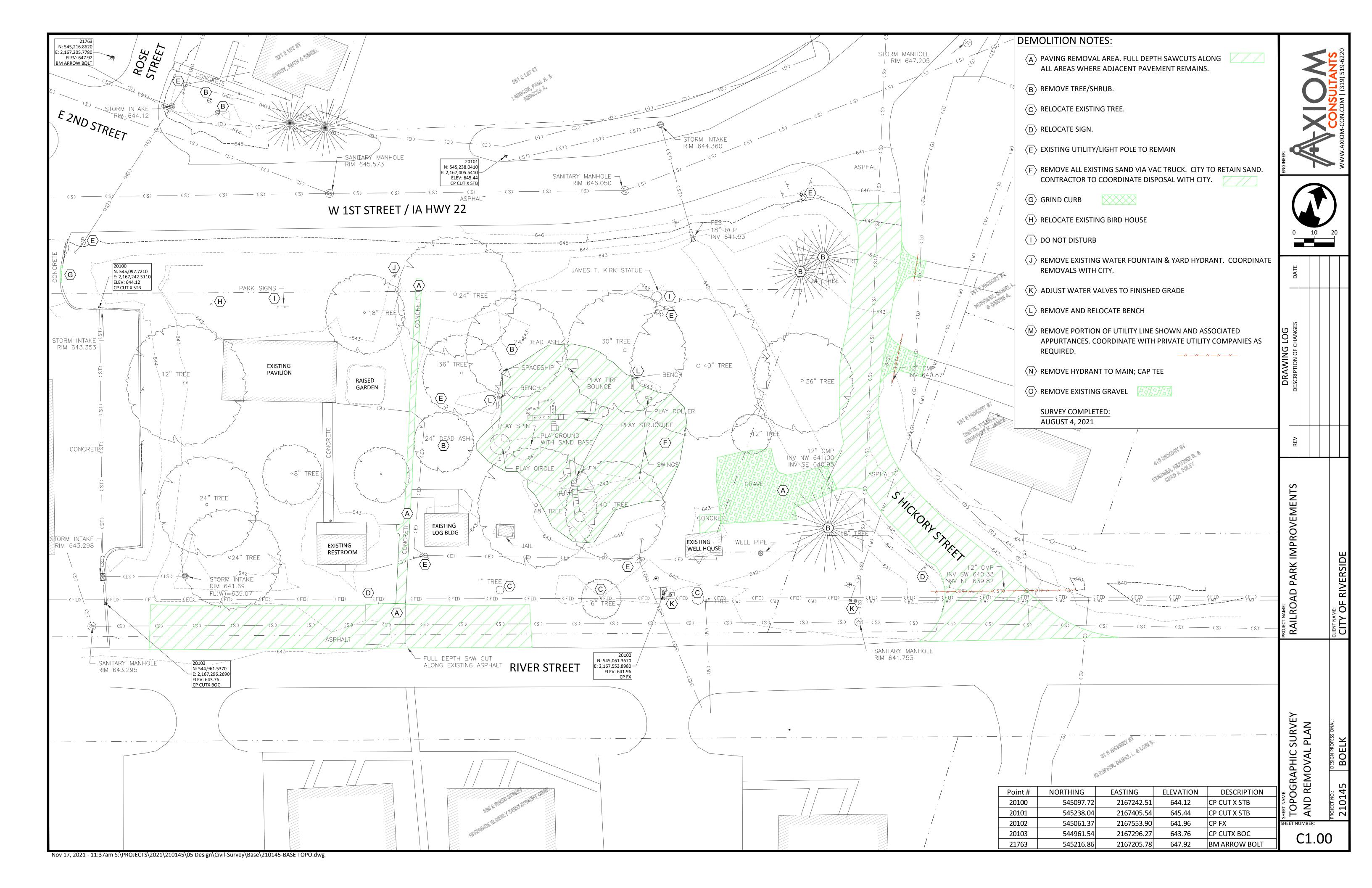
PCC PAVEMENT NOTES

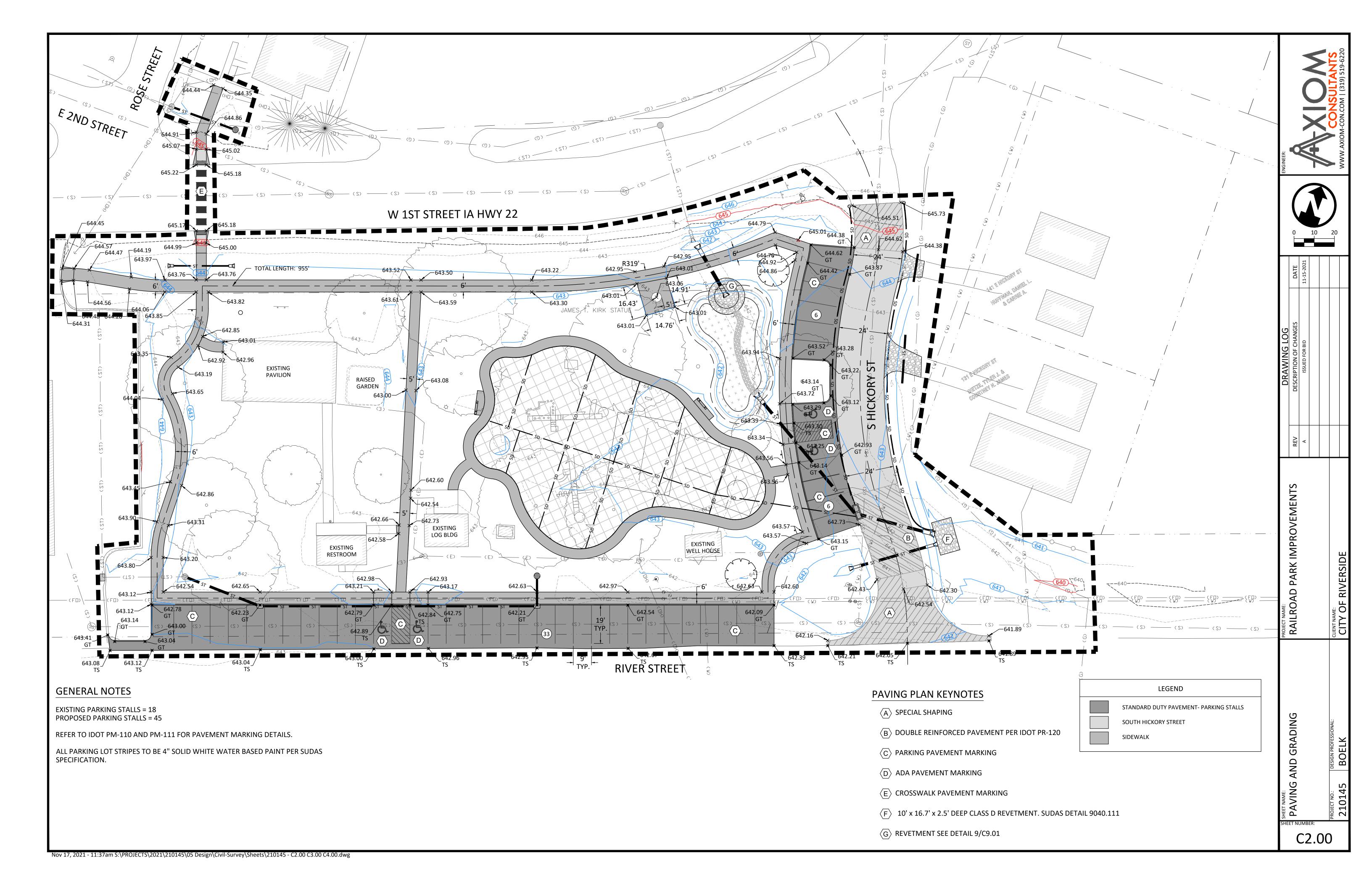
- 1. PARKING AND STREET PCC PAVING THICKNESS SHALL BE 7-INCH ON 6INCH GRANULAR SUBBASE. UNLESS STATED OTHERWISE.
- 2. MATERIALS AND CONSTRUCTION FOR PORTLAND CEMENT CONCRETE PAVEMENTS SHALL MEET THE REQUIREMENT OF IOWA DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST REVISION, SECTION 2301. THE PARAGRAPHS FOR MEASUREMENT AND PAYMENT SHALL NOT APPLY.
- 3. MINIMUM 28-DAY COMPRESSIVE STRENGTH FOR CONCRETE USED FOR PAVEMENTS SHALL BE 4000 PSI. CONCRETE SHALL BE C-3 OR C-4 WITH TYPE 1 CEMENT. AIR CONTENT SHALL BE 6-1/2% ± 1.5% COARSE AGGREGATE. AIR ENTRAINMENT ADMIXTURES AND WATER REDUCING ADMIXTURES SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4103. DURABILITY FOR PORTLAND CEMENT CONCRETE SHALL BE CLASS 2.
- 4. JOINT SEALER SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4136 FOR HOT POURED JOINT SEALER.
- 5. CURING COMPOUND (WHITE, DARK OR CLEAR) SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR SECTION 4105. APPLICATION METHOD AND CURING SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 2301.19.
- 6. FLYASH PER IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4108 MAY BE SUBSTITUTED FOR CEMENT AT THE RATES SPECIFIED IN SECTION 2301.04E AFTER NOTIFICATION AND AUTHORIZATION BY THE OWNER'S REPRESENTATIVE.
- 7. PAVEMENT TIE BARS AND DOWEL BARS SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4151. EPOXY COATING, WHEN SPECIFIED, SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4151.03B.
- 8. CURBS SHALL BE CAST INTEGRAL WITH CONCRETE PAVEMENT UNLESS NOTED OTHERWISE.
- 9. PCC SIDEWALKS 5 FEET OR LESS IN WIDTH SHALL BE 4 INCHES THICK. PCC SIDEWALKS GREATER THAN 5 FEET WIDE BUT LESS THAN 12 FEET WIDE SHALL BE 6 INCHES THICK. SIDEWALK THICKNESS AT ALL DRIVEWAYS SHALL SHALL MATCH THAT OF THE ADJACENT DRIVEWAY. TRANSVERSE CONSTRUCTION JOINT SPACING FOR PCC SIDEWALKS 5 FEET OR LESS IN WIDTH SHALL BE PLACED A MAXIMUM OF 5 FEET ON CENTER. TRANSVERSE CONSTRUCTION JOINT SPACING FOR PCC SIDEWALKS GREATER THAN 5 FEET WIDE BUT LESS THAN 12 FEET WIDE SHALL BE PLACED A MAXIMUM OF 8 FEET ON CENTER. PLACE EXPANSION JOINTS WHERE WALK MEETS OTHER WALKS, BACK OF CURBS, FIXTURES, OR OTHER STRUCTURES, AND AT INTERVALS NOT EXCEEDING 50 FEET. SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% DRAINING TOWARDS BACK OF CURB, UNLESS OTHERWISE NOTED.
- 10. ONE INCH PREFORMED FOAM EXPANSION JOINT MATERIAL SONOFLEX "F" BY SONOBORN OR APPROVED EQUAL SHALL BE PLACED BETWEEN NEW PAVEMENT CONSTRUCTION AND THE FACES OF BUILDINGS, STOOPS, EXISTING SLABS, AND OTHER FIXTURES, UNLESS NOTED ON THE DRAWINGS. JOINTS AT THESE LOCATIONS SHALL BE SEALED WITH A SELF-LEVELING POLYURETHANE SUCH AS SONOLASTIC SL-1 OR APPROVED EQUAL.
- 11. CONSTRUCT 1" EXPANSION JOINTS ON PCC CURB AT ALL ENDS OF RETURN RADII.

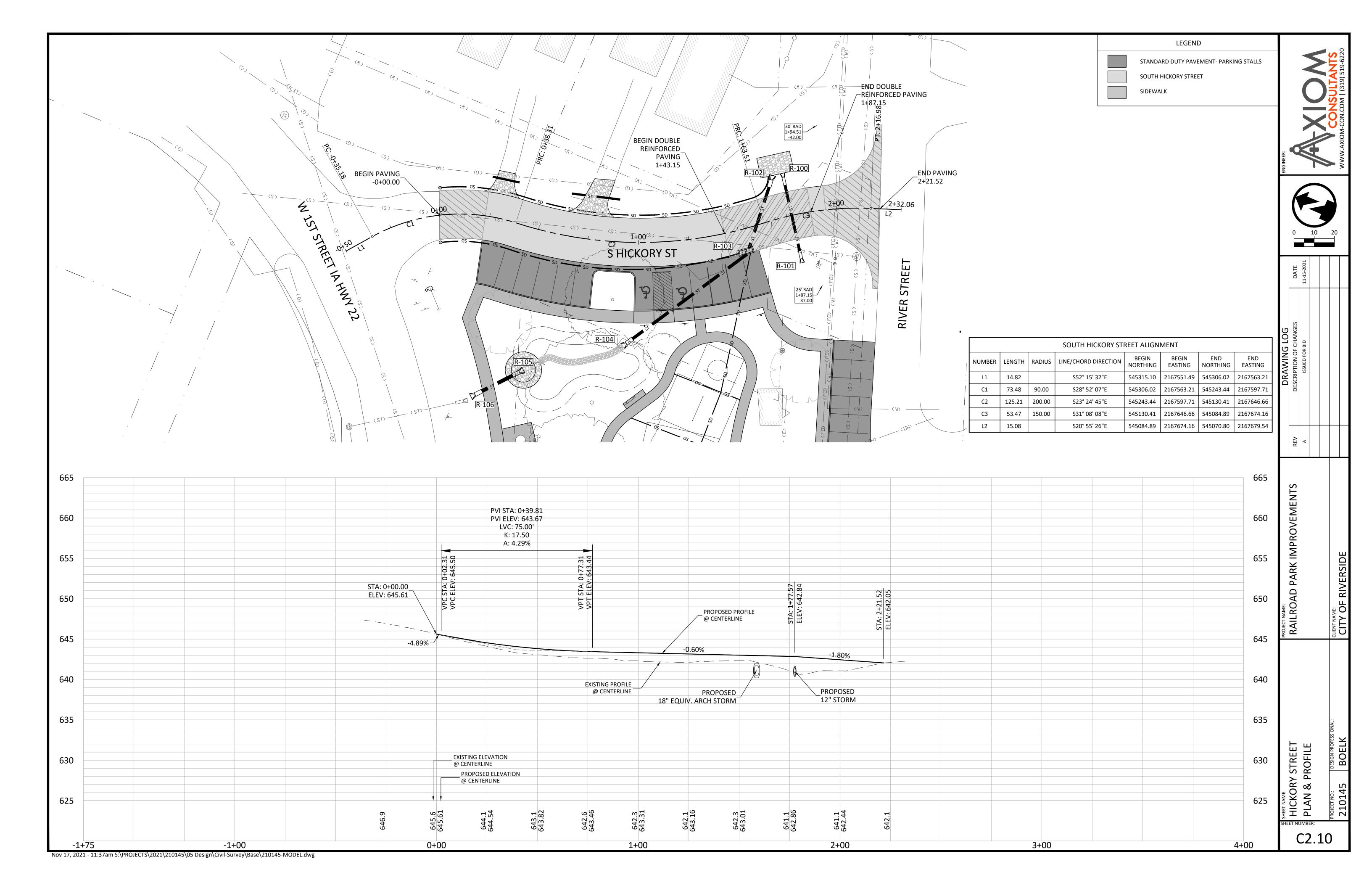


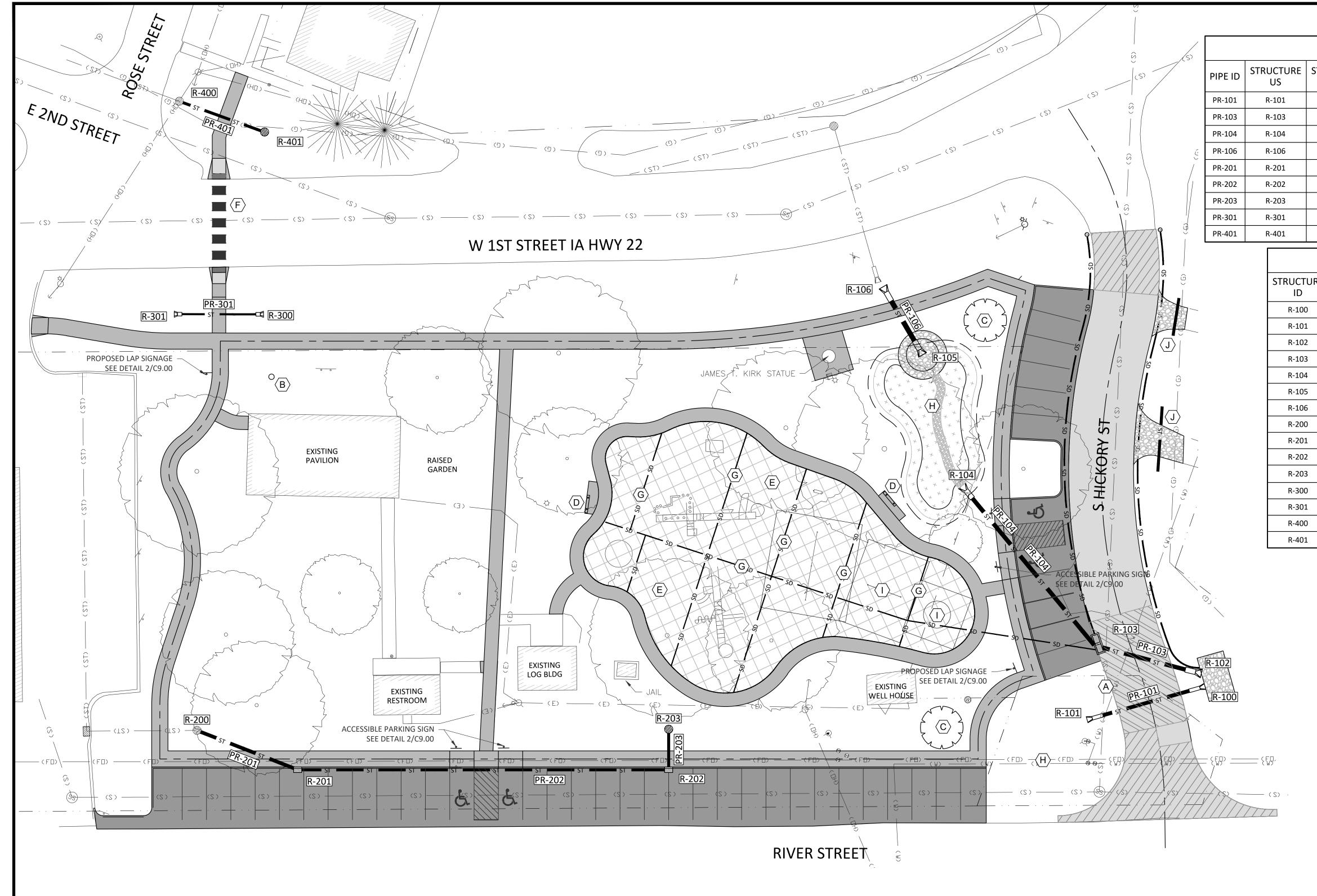


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STORM SEWER PIPE TABLE								
PIPE ID	STRUCTURE US	STRUCTURE DS	INVERT US	INVERT DS	LENGTH (FEET)	SLOPE	SIZE (IN)	NOTES
PR-101	R-101	R-100	640.63	640.40	46	0.50%	12	RCP
PR-103	R-103	R-102	640.60	640.40	40	0.50%	23	18" EQUIV. ARCH PIPE
PR-104	R-104	R-103	641.28	640.70	78	0.75%	23	18" EQUIV. ARCH PIPE
PR-106	R-106	R-105	641.50	641.35	30	0.50%	23	18" EQUIV. ARCH PIPE
PR-201	R-201	R-200	639.37	639.17	40	0.50%	18	RCP
PR-202	R-202	R-201	640.16	639.47	138	0.50%	12	RCP
PR-203	R-203	R-202	640.34	640.26	16	0.50%	12	RCP
PR-301	R-301	R-300	643.24	643.10	28	0.50%	8	HDPE
PR-401	R-401	R-400	641.69	641.35	34	1.00%	12	RCP

STORM SEWER STRUCTURES						
STRUCTURE ID	TYPE	RIM / FG	INFLOW PIPE IE	OUTFLOW PIPE IE		
R-100	R-100 FES 641.6		12" IE: 640.40 SW			
R-101	FES	641.86		12" IE: 640.63 NE		
R-102	FES	642.20	23" IE: 640.40 W			
R-103	SW-505	642.79	23" IE: 640.70 NW	23" IE: 640.60 E		
R-104	FES	643.09		23" IE: 641.28 SE		
R-105	FES	643.16	23" IE: 641.35 NW			
R-106	FES	643.30		23" IE: 641.50 SE		
R-200	EX SW-512	641.71	18" IE: 639.17 E	18" IE: 639.07 W		
R-201	SW-501	642.24	12" IE: 639.47 E	18" IE: 639.37 W		
R-202	SW-501	642.23	12" IE: 640.26 N	12" IE: 640.16 W		
R-203	SW-512, 18"	642.47		12" IE: 640.34 S		
R-300	FES	643.85	8" IE: 643.10 W			
R-301	FES	643.99		8" IE: 643.24 E		
R-400	EX SW-512	643.35	12" IE: 641.35 E	12" IE: 641.20 W		
R-401	SW-512	643.89		12" IE: 641.69 W		

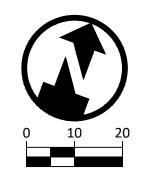
SITE AND UTILITY PLAN KEYNOTES

- $\langle \mathsf{A}
 angle$ NEW HYDRANT ASSEMBLY
- $\langle B \rangle$ relocated bird house
- © RELOCATED TREE
- ⟨E⟩ RESILIENT SURFACING

D RELOCATED BENCH

- $\langle \mathsf{F} \rangle$ CROSSWALK STRIPING
- ⟨G⟩ 4" TILE GRID
- H RAIN GARDEN
- NEW PLAYGROUND EQUIPMENT TO BE SUPPLIED BY CITY WITH INSTALLATION BY CONTRACTOR
- $\langle \mathsf{J}
 angle$ 12" CMP CULVERT

CONSULTANTS
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	DATE	11-15-2021		
DRAWING LOG	DESCRIPTION OF CHANGES	ISSUED FOR BID		
	REV	Α		

RAILROAD PARK IMPROVEI

T NO:

DESIGN PROFESSIONAL:

DOE 1 V

C3.00

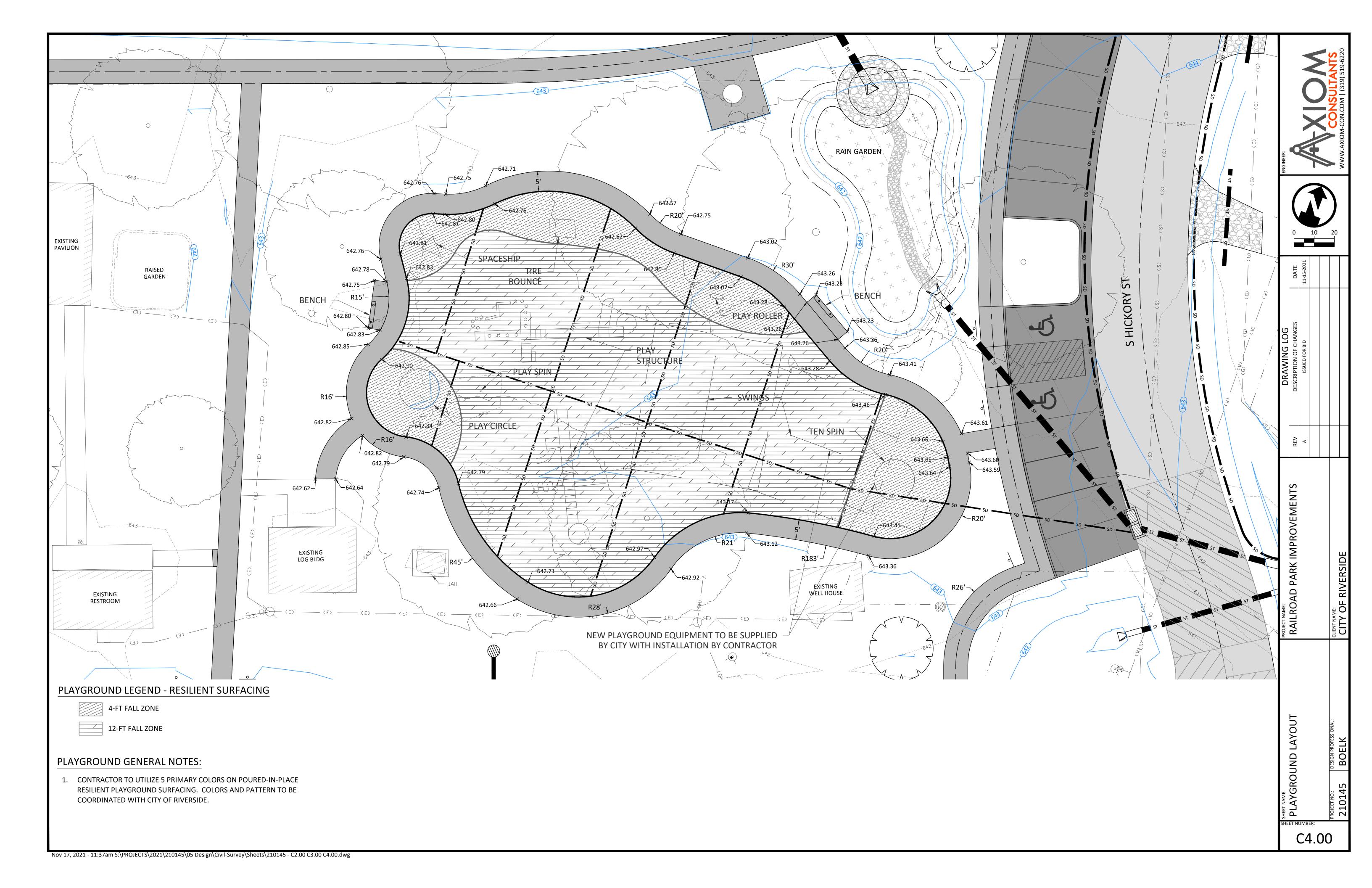
EQUIPMENT, NEW SURFACE, AND PERIMETER SIDEWALK.

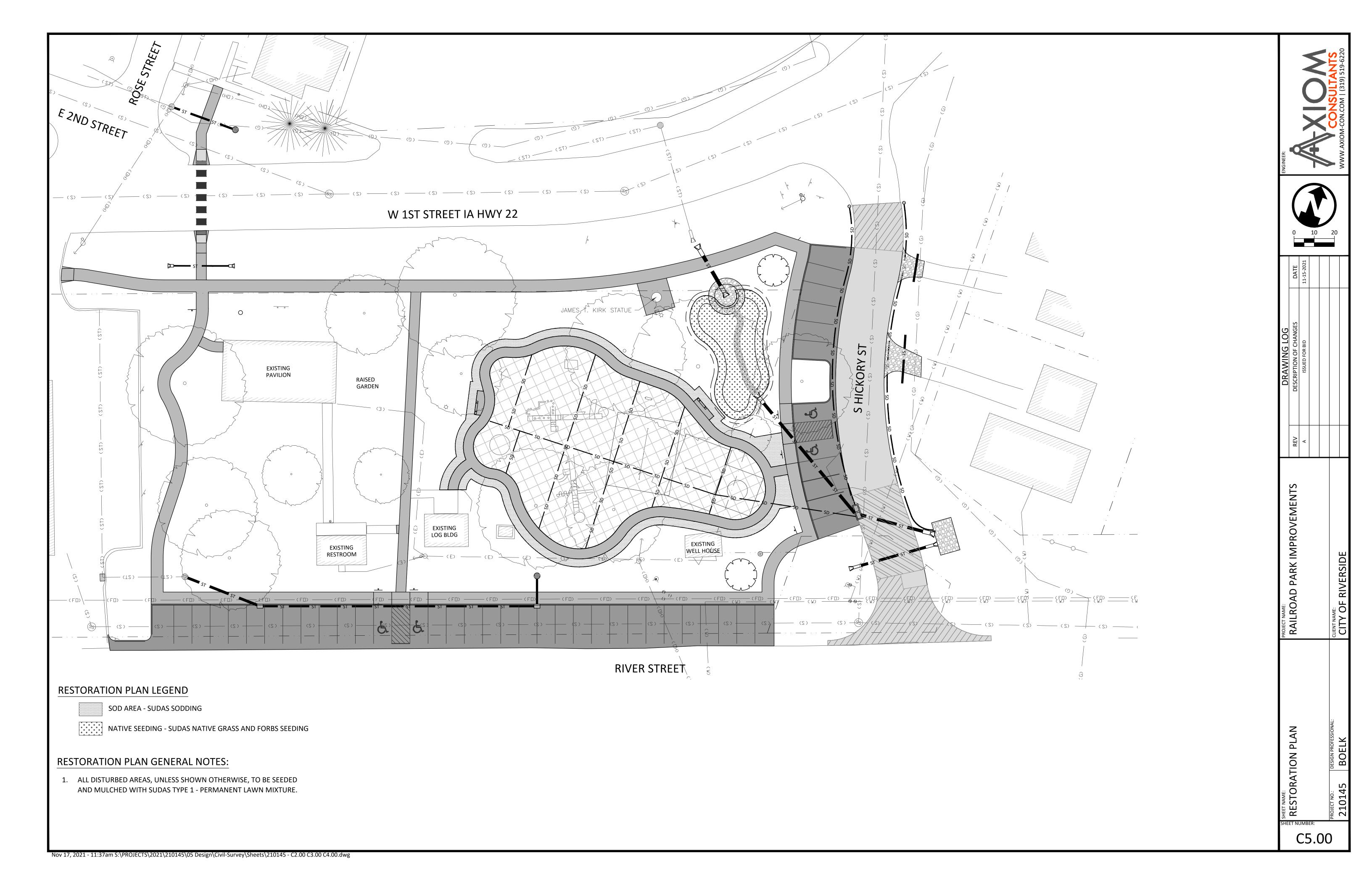
PHASE 2: ALL WORK ASSOCIATED WITH PLAYGROUND INCLUDING REMOVAL OF SAND, INSTALLATION OF NEW

PHASE 1: ALL PUBLIC IMPROVEMENTS OUTSIDE THE PLAYGROUND AREA, INCLUDING SOUTH HICKORY STREET

PAVING, PARKING STALLS, STORM SEWER IMPROVEMENTS, AND SIDEWALK OTHER THAN PERIMETER OF

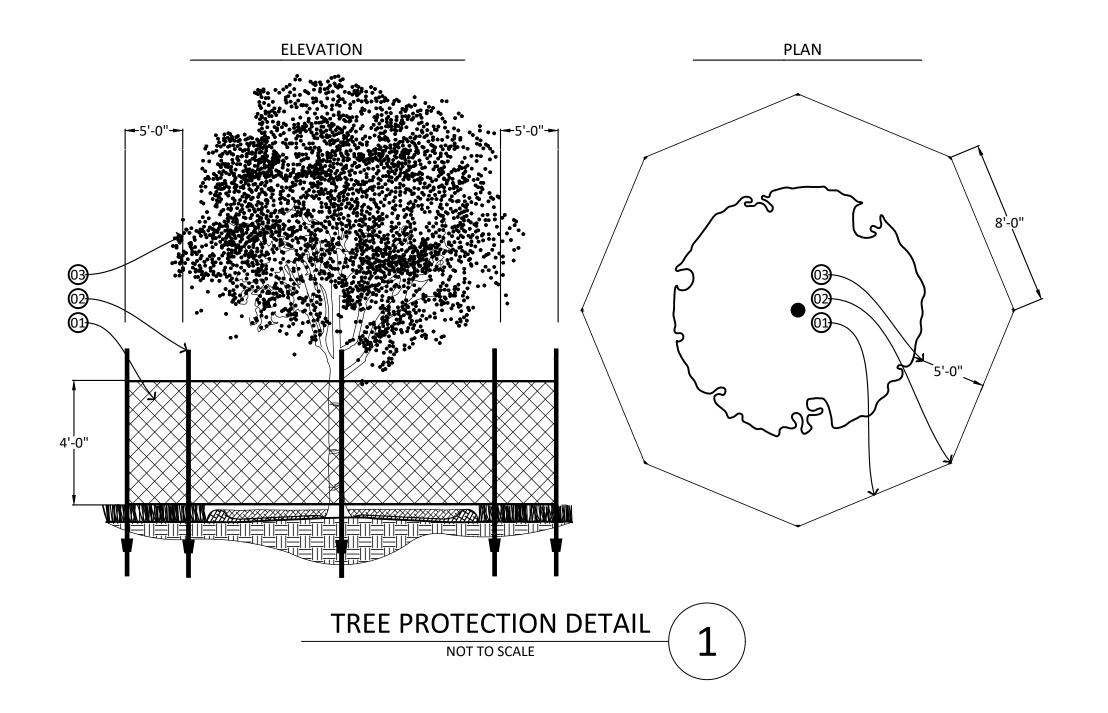
PLAYGROUND.

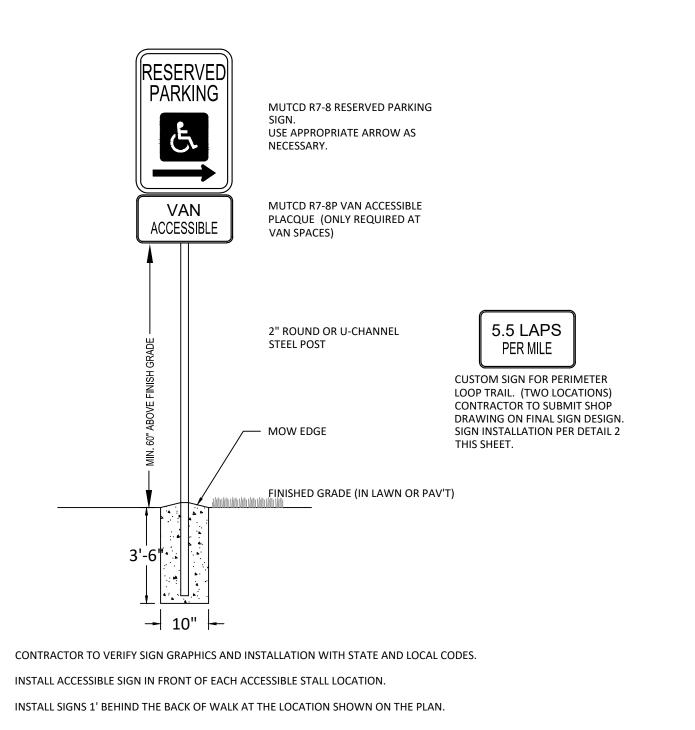


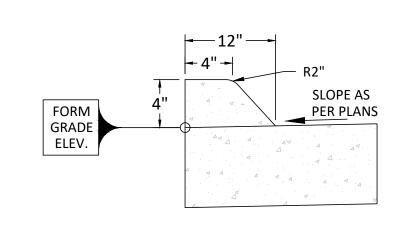


TREE PROTECTION FENCING NOTES:

- 00 TYPICAL ALL TREES NOTED FOR PROTECTION ON SITE PLANS.
- 01 04'-0" HIGH VISIBILITY ORANGE CONSTRUCTION FENCE.
- 02 STEEL FENCE POSTS AT MIN. 8'-0" O.C.
- 03 INSTALL FENCING 5' BEYOND DRIP LINE OF PROTECTED TREE.







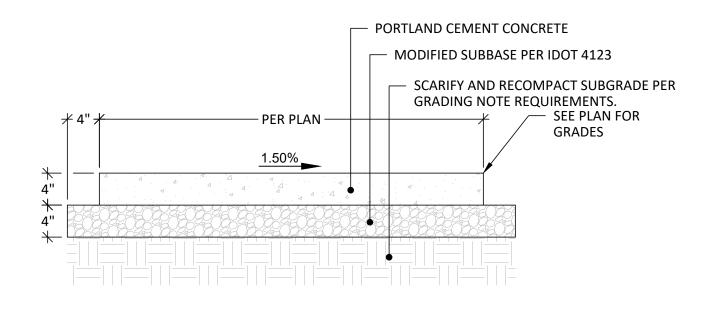
4" STANDARD SLOPE CUT

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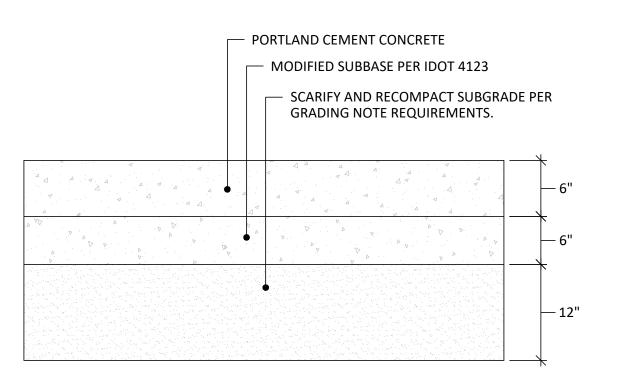
SIGN DETAIL

NOT TO SCALE

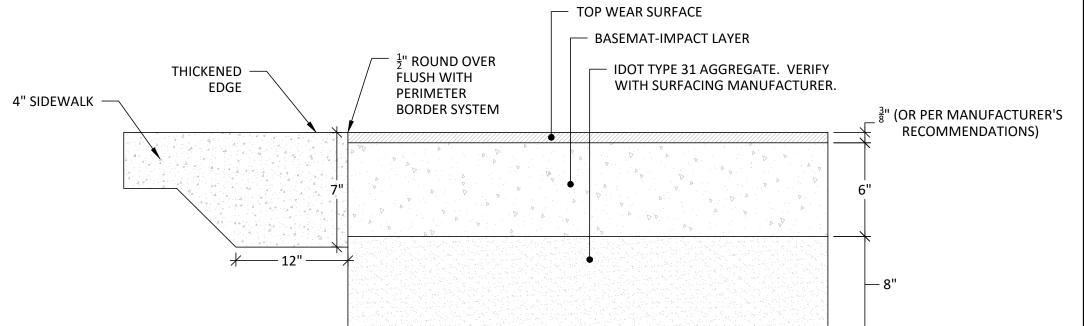
2











PLAYGROUND RESILIANT SURFACING

NOT TO SCALE

C9.00

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