

NOTES

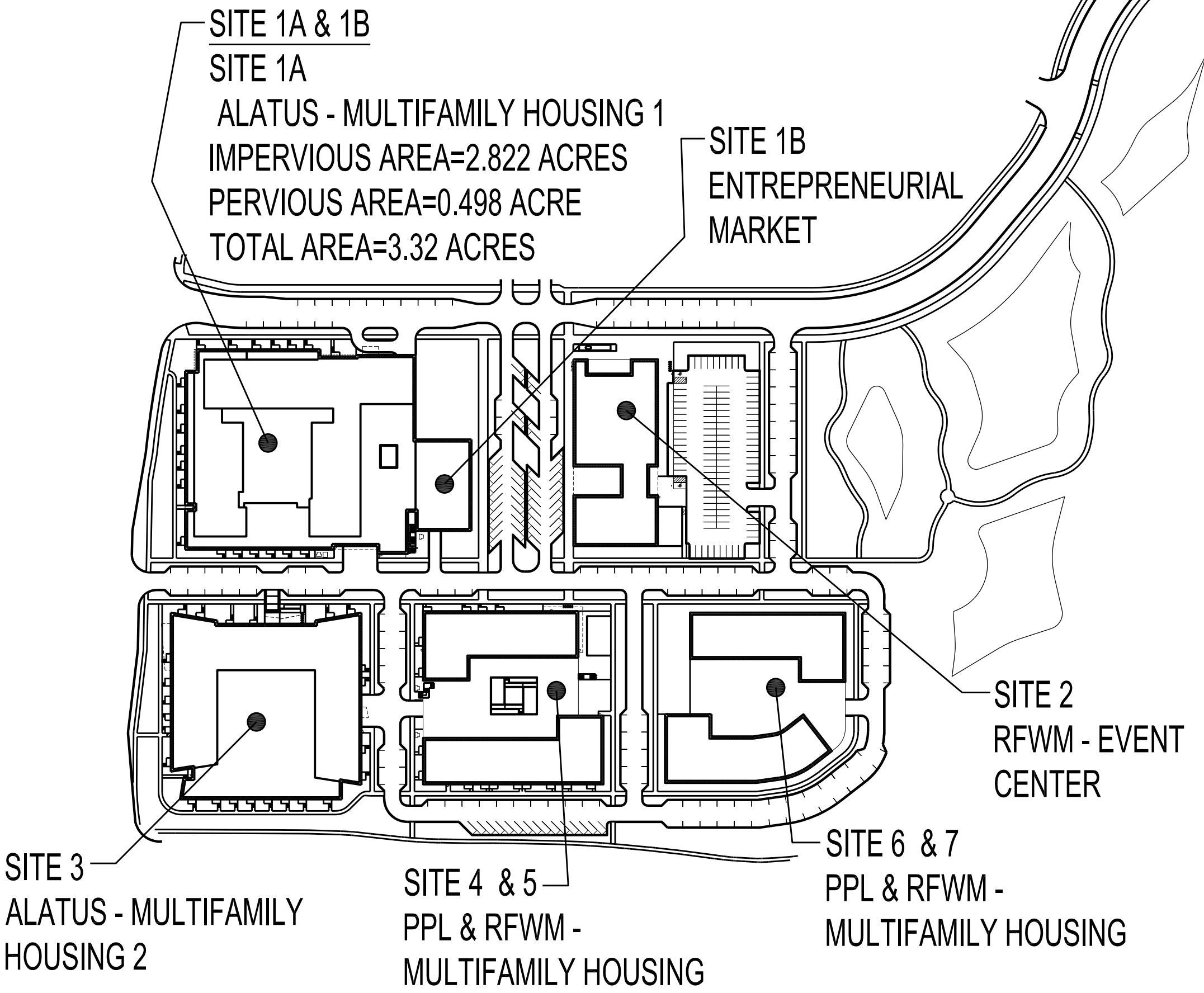
- ALL EXISTING INFORMATION TAKEN FROM SURVEY PROVIDED BY BOLTON & MENK DATED MARCH 4, 2022.
- SUBSURFACE GEOTECHNICAL INVESTIGATION BY BRAUN INTERTEC IS UNDERWAY.
- CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS OF EXISTING UTILITIES, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION.
- ALL AREAS DISTURBED BY CONSTRUCTION WHICH ARE OUTSIDE THE LIMITS OF PAVING ARE TO BE RESTORED AND REVEGETATED.
- ALL UTILITY DEMOLITION AND/OR ABANDONMENT TO BE PERFORMED IN ACCORDANCE WITH THE CITY OF BROOKLYN CENTER AND STATE OF MINNESOTA REGULATIONS AND STANDARDS.
- EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES WHICH MAY INCLUDE BUT IS NOT LIMITED TO: ELECTRIC, TELEPHONE, GAS, CABLE TV, COMPUTER CABLE, FIBER OPTIC CABLE, SANITARY SEWER, STORM SEWER, STEAM, CONDENSATE, ELECTRICAL DUCTBANK AND WATERMAIN. CONTRACTOR TO CONTACT GOPHER ONE-CALL BEFORE EXCAVATING.
- ALL EXISTING UTILITIES AND OTHER IMPROVEMENTS ARE TO REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR TO PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS, LANDSCAPING, STRUCTURES AND UTILITIES THAT ARE TO REMAIN. CONTRACTOR TO REPAIR ANY DAMAGE AT OWN EXPENSE.
- ALL WORK TO CONFORM WITH CITY OF BROOKLYN CENTER AND STATE OF MINNESOTA STANDARDS AND REGULATIONS.
- ALL EXCAVATIONS MUST COMPLY WITH THE REQUIREMENTS OF OSHA 29 CFR, PART 1926, SUBPART P "EXCAVATIONS AND TRENCHES". THIS DOCUMENT STATES THAT EXCAVATION SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- PROVIDE BARRICADES AT STREETS AND SIDEWALKS PER CITY OF BROOKLYN CENTER AND MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MN MUTCD).
- CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION.
- ALL MATERIALS FOR PROPOSED CONSTRUCTION OR REPAIR OF EXISTING FACILITIES SHALL BE NEW PRODUCTS DIRECT FROM THE FACTORY AND FREE FROM DEFECTS.
- WHEN WORKING AROUND EXISTING TELEPHONE OR ELECTRICAL POLES, THE CONTRACTOR SHALL BRACE THE POLE FOR SUPPORT.
- WHEN WORKING AROUND EXISTING UTILITIES THAT BECOME EXPOSED, THE CONTRACTOR SHALL PROVIDE SUFFICIENT SUPPORT TO PREVENT EXCESSIVE STRESS ON THE PIPING. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.
- CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND ELEVATION OF EXISTING STORM AND SANITARY SEWER PRIOR TO THE START OF CONSTRUCTION. IF ELEVATIONS DIFFER FROM SURVEYED ELEVATIONS SHOW ON PLAN, REPORT DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION.
- SITE UTILITY CONTRACTOR TO FURNISH AND INSTALL ALL WATERMAIN, SANITARY SEWER AND STORM SEWER FACILITIES AND APPURTENANCES TO WITHIN FIVE FEET OUTSIDE THE BUILDING. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION AND DEPTH OF CONNECTION WITHIN BUILDING.
- CATCH BASINS AND MANHOLES ARE SHOWN ON PLAN LARGER THAN ACTUAL SIZE. COORDINATE LOCATION OF MANHOLE COVER AND CASTING SO THAT IT IS PROPERLY LOCATED AT THE BACK OF CURBLINE FOR THE CURB INLETS OR CENTERED IN THE AREA AS SHOWN ON THE PLAN FOR THE AREA DRAINS AND MANHOLE COVERS.
- CONTRACTOR SHALL COORDINATE WITH ARCHITECT'S DRAWINGS TO VERIFY LOCATION, SIZE AND QUANTITY OF ALL ROOF DRAINS AND UTILITY CONNECTIONS. LIMITS OF PROPOSED SITE PLUMBING FACILITIES SHALL BE FIVE FEET FROM EDGE OF BUILDING UNLESS OTHERWISE NOTED.
- PROVIDE THE FOLLOWING MINIMUM COVER OVER THE TOP OF PIPE AS FOLLOWS:
  - 8' OVER WATERMAIN
  - 5' OVER SANITARY SEWER
  - 2' OVER STORM SEWER
- ALL WATERMAIN AND SERVICES TO BE INSTALLED IN ACCORDANCE WITH CITY OF BROOKLYN CENTER WATER STANDARDS. ALL WATER MAIN AND SERVICES TO BE INSTALLED IN ACCORDANCE WITH RECOMMENDED STANDARDS FOR WATER WORKS BY THE GREAT LAKES UPPER MISSISSIPPI RIVER BOARD OF STATE PUBLIC HEALTH AND ENVIRONMENTAL MANAGERS (TEN-STATE STANDARDS) AND STATE OF MINNESOTA PLUMBING CODE, LATEST EDITION.
- ALL PAVEMENT MARKINGS WITHIN EXISTING CITY PAVEMENT AREAS TO BE RESTORED TO MATCH EXISTING UNLESS NOTED OTHERWISE.
- MAXIMUM CROSS-SLOPES FOR SIDEWALKS AND ADA ACCESS ROUTES SHALL NOT EXCEED 2.00%. MAXIMUM SLOPES FOR ADA PARKING STALLS AND ADA ACCESS AISLES SHALL NOT EXCEED 2.00% IN ANY DIRECTION. MAXIMUM RUNNING SLOPE FOR ALL SIDEWALKS SHALL NOT EXCEED 5.00%.
- THE CONTRACTOR SHALL PROVIDE A CONTINUOUS, ACCESSIBLE AND SAFE PEDESTRIAN WALKWAY THAT MEETS ADA AND MINNESOTA MUTCD STANDARDS IF WORKING IN A SIDEWALK AREA, AND TRAFFIC CONTROL PER MINNESOTA MUTCD REQUIREMENTS FOR WORK IN THE PUBLIC RIGHT-OF-WAY.
- WASTE MATERIALS INCLUDING PAVEMENT REMOVED DURING CONSTRUCTION, WASTE PIPING AND SUPPLIES, CONSTRUCTION DEBRIS AND EXCESS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR.
- CONTRACTOR SHALL NOT BLOCK DRAINAGE FROM OR DIRECT EXCESS DRAINAGE ONTO ADJACENT PROPERTY.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY EXISTING DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
- CARE MUST BE TAKEN DURING CONSTRUCTION AND EXCAVATION TO PROTECT ANY SURVEY MONUMENTS AND/OR PROPERTY IRONS.
- COORDINATE SCHEDULING OF CLOSURES AND RE-OPENINGS OF EGRESSSES, LOADING DOCKS, DUMPSTERS, DRIVEWAYS, SIDEWALKS AND ROADS WITH OWNER AND CITY OF BROOKLYN CENTER. TRAFFIC CONTROL, SIGNAGE, TEMPORARY WALKWAYS AND TEMPORARY DRIVEWAYS TO CONFORM WITH CITY OF BROOKLYN CENTER AND STATE OF MINNESOTA REQUIREMENTS AND STANDARDS.
- DRAWINGS DO NOT INDICATE AREAS OF TEMPORARY SUPPORT SYSTEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS AND WILL HAVE TOTAL CONTROL OVER THE TYPES AND DESIGN OF ALL SHORING, SHEETING, BRACING, ANCHORAGES, EXCAVATION SUPPORT WALLS, DIRECTIONAL BORING, AUGER JACKING, SOIL STABILIZATION AND OTHER METHODS OF PROTECTING EXISTING IMPROVEMENTS. SEE SPECIFICATIONS FOR SUBMITTAL REQUIREMENTS.
- STORAGE AND PROTECTION OF EXISTING SITE FEATURES WHICH NEED TO BE REMOVED AND REPLACED FOR CONSTRUCTION OF PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR. STORAGE SHALL BE WITHIN THE LIMITS OF STAGING AREA. CONTRACTOR SHALL PREVENT DAMAGE OR THEFT OF THESE ITEMS AND TO REPLACE AT OWN EXPENSE.
- CONTRACTOR TO RECORD EXISTING CONDITIONS (PHOTOGRAPHS, VIDEO PHOTOGRAPHY, FIELD SURVEYING, ETC.) TO ENABLE RECONSTRUCTION TO MATCH EXISTING CONDITIONS AS REQUIRED. CONTRACTOR TO DOCUMENT EXISTING CONDITIONS SO THAT RECONSTRUCTED AREAS WILL HAVE POSITIVE DRAINAGE SIMILAR TO EXISTING.
- WHERE DEMOLITION, EXCAVATION, UNDERPINNING, PILE DRIVING, COMPACTING OR SIMILAR WORK IS TO BE PERFORMED ADJACENT TO OR IN THE IMMEDIATE VICINITY OF EXISTING STRUCTURES, THE CONTRACTOR WILL PROVIDE BUILDING SURVEYS AND SEISMIC MONITORING.
- ALL EXISTING BUILDING EXITS AND DRIVEWAYS SHALL REMAIN UNOBSTRUCTED AND USABLE AT ALL TIMES. IF THERE ARE UNAVOIDABLE EXCEPTIONS, THEN CONTRACTOR SHALL PROVIDE TEMPORARY EXIT PLANS TO THE OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- SANITARY SEWER PIPE AND FITTINGS TO BE POLYVINYL CHLORIDE (PVC), SDR 26 MINIMUM AND COMPLY WITH ASTM D3034 AND F679. JOINTS TO BE SOLVENT CEMENT OR FLEXIBLE WATERTIGHT.
- STORM SEWER PIPE TO BE REINFORCED CONCRETE PIPE (RCP), ASTM C76, CLASS 5, WITH GASKETED JOINTS OR POLYVINYL CHLORIDE (PVC), SDR 26 MINIMUM COMPLYING WITH ASTM D3034 AND F679 WITH SOLVENT CEMENT OR FLEXIBLE WATER TIGHT JOINTS OR HDPE WITH FLEXIBLE WATER TIGHT JOINTS, PER SPECIFICATIONS AS NOTED ON PLAN.
- WATERMAIN TO BE DUCTILE IRON PIPE (DIP) THICKNESS CLASS 52 FOR 8" DIP AND THICKNESS CLASS 53 FOR 4" AND 6" DIP. ANSI A-21.51, 150 PSI WORKING PRESSURE MINIMUM. TYPE K COPPER SHALL BE USED FOR PIPES LESS THAN 4" DIAMETER.
- MAINTAIN 10 FEET HORIZONTAL AND 3 FEET VERTICAL SEPARATION BETWEEN WATER AND SEWER PIPES. IF INFEASIBLE A 12-INCH VERTICAL SEPARATION WITH 4-INCH HIGH DENSITY INSULATION BETWEEN PIPES WILL BE REQUIRED.
- WHERE PRACTICABLE INSTALL WATERMAIN GATE VALVES WITHIN GREEN SPACE AREAS TWO FEET OFFSET FROM THE MAIN. SIDEWALKS SHALL BE STAKED AND EXACT LOCATIONS OF WATER VALVES COORDINATED IN THE FIELD, TYPICAL FOR ALL.
- SEQUENCING OF UTILITIES AND STRUCTURAL SYSTEMS SHALL BE CAREFULLY COORDINATED. CONTRACTOR SHALL ALSO TAKE CARE TO PROTECT SERVICE CONNECTIONS AND ADJACENT PARALLEL UTILITY LINES WHILE FORMING AND PLACING CONCRETE FOR OTHER HEAVY CONSTRUCTION WITHIN THE AREA. CONTRACTIBILITY OF THE STRUCTURAL SYSTEMS SHALL TAKE INTO ACCOUNT ANY UTILITY WORK SO PIPE/CONDUIT OR STRUCTURES ARE NOT DISPLACED, CRUSHED, OR OTHERWISE ADVERSELY AFFECTED DURING CONSTRUCTION.
- ALL STUMPS FROM TREES REMOVED WITHIN PROJECT LIMITS SHALL BE GROUND AND REMOVED IN THEIR ENTIRETY.
- CONTRACTOR IS RESPONSIBLE FOR PROPER REMOVAL AND DISPOSAL OF ALL DEBRIS, EXCESS FILL AND OTHER UNUSED MATERIALS GENERATED BY PROJECT AND DONE IN FULL COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL RULES AND REGULATIONS. THE SITE SHALL BE KEPT CLEAN AND FREE FROM ALL WASTE MATERIALS.
- ALL WORK WILL BE IN ACCORDANCE WITH OSHA CODES AND STANDARDS. NOTHING INDICATED ON THE DRAWINGS OR SPECIFICATIONS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- PROVIDE AN EXPANSION JOINT AROUND ALL EXISTING UTILITIES, MANHOLES, POLES, LIGHTS, POSTS, BOXES, ETC. WITHIN AREAS OF NEW OR RECONSTRUCTED CONCRETE PAVEMENT.
- ALL EXPOSED CONCRETE (CURB, STEPS, WALLS, ETC.) TO HAVE A CONSISTENT RUBBED FINISH. CONTRACTOR TO PROVIDE MINIMUM FOUR SQUARE FOOT MOCK-UP FOR REVIEW AND APPROVAL.
- CONTRACTOR TO PROVIDE MINIMUM 4'x4' OF ALL PAVEMENT TYPES FOR REVIEW AND APPROVAL. ALL CONCRETE SIDEWALKS TO HAVE BROOM FINISH. MOCK-UP TO REMAIN ON SITE THROUGHOUT CONSTRUCTION.
- THICKENED EDGE EXPANSION JOINTS SHALL BE PLACED ALONG THE EDGE OF ALL CONCRETE PAVEMENT AT THE PERIMETER OF ALL STRUCTURES, CONCRETE CURB AND GUTTER ADJACENT PAVEMENT.
- THE DRAWINGS REPRESENT TO FINISHED SITE NOT THE METHOD OF CONSTRUCTION. THE ENGINEER IS NOT RESPONSIBLE FOR CONTRACTOR'S MEANS AND METHODS, SEQUENCING OF CONSTRUCTION OR SAFETY PROGRAM. OBSERVATION VISITS TO THE SITE BY THE ENGINEER WILL NOT INVOLVE REVIEW OF THESE ITEMS.
- WHERE DISCREPANCIES OCCUR BETWEEN GENERAL NOTES, PLANS, DETAILS AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN, UNLESS OTHERWISE VERIFIED BY THE ENGINEER OR ARCHITECT IN WRITING.
- THESE DOCUMENTS SHALL NOT BE CONSTRUED AS STAND-ALONE DOCUMENTS. CONTRACTOR SHALL COORDINATE WITH ALL OTHER DISCIPLINE'S DOCUMENTS.
- FOR TREES TO REMAIN HEALTHY DURING A CONSTRUCTION PROJECT THEY MUST BE PROTECTED FROM CONSTRUCTION ACTIVITIES. TREE AND PLANT PROTECTION, THE FOLLOWING REQUIREMENTS APPLY TO ALL CONSTRUCTION SITES:
  - TREES WITHIN THE CONSTRUCTION ZONE SHALL BE PROTECTED FROM DAMAGE AND SOIL COMPACTION BY EQUIPMENT, DEBRIS AND STORAGE INTRUSION. SUGGESTED MATERIALS FOR PROTECTION ARE CONCRETE BARRICADES, CONSTRUCTION FENCING OR CHAIN LINK FENCING AND NOTED ON CONTRACTOR'S SITE OPERATIONS LAYOUT.
  - TREE PROTECTION SHALL BE PLACED AT A MINIMUM OF ONE AND A HALF (1.5) TIMES (IN FEET) THE CALIPER DIMENSION (IN INCHES) FROM THE BASE OF THE TRUNK. FOR EXAMPLE: A TEN (10) CALIPER INCH TREE WOULD REQUIRE PROTECTION A MINIMUM OF FIFTEEN (15) FEET FROM THE BASE OF THE TRUNK.
  - TREES THAT ARE NECESSARILY IMPACTED BY CONSTRUCTION SHALL BE PRUNED AND ROOT PRUNED AS REQUIRED BY A CERTIFIED ARBORIST.
- TRACER WIRES TO BE TERMINATED IN THE CORRECT COLOR COPPERHEAD TRACER WIRE BOX OR WITHIN A MANHOLE. LOCATION OF TRACER WIRE BOXES TO BE SHOWN ON AS-BUILT DRAWINGS.
- WITHIN LANDSCAPE AREAS ALL CLASS V MATERIAL SHALL BE REMOVED AND COMPACTED SOILS DECOMPACTED TO A DEPTH OF 12" PRIOR TO INSTALLATION OF TOPSOIL. WITHIN LANDSCAPE AREAS ALL CLASS V MATERIAL SHALL BE REMOVED AND COMPACTED SOILS DECOMPACTED TO A DEPTH OF 12" PRIOR TO INSTALLATION OF TOPSOIL.
- GENERAL CONTRACTOR SHALL TAKE PHOTOGRAPHS AND MEASUREMENTS OF ALL STORMWATER MANAGEMENT SYSTEMS THROUGHOUT CONSTRUCTION. DOCUMENTATION OF CONSTRUCTION SHALL BE SUBMITTED TO THE CIVIL ENGINEER AT THE CLOSEOUT OF THE PROJECT. CLOSEOUT DOCUMENTATION SHALL INCLUDE PHOTOGRAPHS AND MEASUREMENTS OF SYSTEM DURING CONSTRUCTION, TESTING REPORTS AND OBSERVATIONS AND REGULATORY DRAWINGS OF ANY FIELD MODIFICATIONS MADE DURING CONSTRUCTION.
- A LETTER WRITTEN ON COMPANY LETTERHEAD THAT THE STORMWATER MANAGEMENT PRACTICES HAVE BEEN BUILT PER THE CIVIL PLANS, OR PER REDLINE FIELD DRAWINGS, SHALL BE SUBMITTED TO THE CIVIL ENGINEER AT THE CLOSEOUT OF THE PROJECT.
- THE GENERAL CONTRACTOR SHALL SUBMIT AN AS-BUILT SURVEY OF THE COMPLETED SITE PREPARED AND SIGNED BY A LICENSED SURVEYOR AT THE END OF THE PROJECT. UPON COMPLETION, THE CONTRACTOR MUST SUBMIT AN AS-BUILT SURVEY OF THE PROPERTY, IMPROVEMENTS AND UTILITY SERVICE LINES AND STRUCTURES AND PROVIDE A CERTIFIED RECORD OF ALL PROJECT PLAN SHEETS DEPICTING ANY ASSOCIATED PRIVATE AND/OR PUBLIC IMPROVEMENTS, REVISIONS AND ADJUSTMENTS PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. THE

Class 52 for 4" and larger

Provide plan a min. 14 days in advance.

LEGEND

- 
- EXISTING DECIDUOUS TREE
  - EXISTING CONIFEROUS TREE
  - EXISTING FIRE HYDRANT
  - EXISTING WATER VALVE
  - EXISTING DOWNSPOUT
  - EXISTING WATER MANHOLE
  - EXISTING ELECTRIC MANHOLE
  - EXISTING SANITARY SEWER MANHOLE
  - EXISTING STORM SEWER MANHOLE
  - EXISTING POST
  - EXISTING BOLLARD
  - EXISTING CLEAN OUT
  - EXISTING METER
  - EXISTING COMMUNICATION PEDESTAL
  - EXISTING ELECTRIC PEDESTAL
  - EXISTING ELECTRIC TRANSFORMER
  - EXISTING CATCH BASIN
  - EXISTING TRAFFIC SIGNAL
  - EXISTING SIGN
  - EXISTING LIGHT POLE
  - EXISTING WATER LINE
  - EXISTING SANITARY SEWER LINE
  - EXISTING STORM SEWER LINE
  - EXISTING OVERHEAD ELECTRIC LINE
  - EXISTING OVERHEAD UTILITY LINE
  - EXISTING OVERHEAD COMMUNICATION LINE
  - EXISTING UNDERGROUND ELECTRIC LINE
  - EXISTING UNDERGROUND GAS LINE
  - EXISTING UNDERGROUND COMMUNICATION LINE
  - EXISTING UNDERGROUND FIBER LINE
  - EXISTING CHAIN LINK FENCE
  - EXISTING CONTOUR
  - EXISTING SPOT ELEVATIONS
  - PROPERTY LINE
  - PROPOSED CONTOUR
  - PROPOSED SPOT ELEVATION
  - DENOTES SURFACE DRAINAGE
  - PROPOSED SAWCUT LINE
  - PROPOSED SANITARY SEWER
  - PROPOSED STORM SEWER
  - PROPOSED WATERMAIN
  - PROPOSED CATCH BASIN
  - PROPOSED MANHOLE
  - PROPOSED GATE VALVE
  - PROPOSED STORM SEWER BY OTHERS
  - PROPOSED SANITARY SEWER BY OTHERS
  - PROPOSED WATERMAIN BY OTHERS
  - SILT FENCE
  - EROSION CONTROL AT CB/MH
  - EXISTING TREE TO BE REMOVED
  - EXISTING CONCRETE SIDEWALK TO BE REMOVED
  - EXISTING BITUMINOUS PAVEMENT TO BE REMOVED
  - EXISTING GRAVEL TO BE REMOVED
  - EXISTING CONCRETE PAVEMENT TO BE REMOVED
  - EXISTING CURB AND GUTTER TO BE REMOVED
  - EXISTING UTILITY TO BE REMOVED
  - EXISTING CONCRETE PAVEMENT TO BE REMOVED BY OTHERS
  - EXISTING CURB AND GUTTER TO BE REMOVED BY OTHERS
  - PROPOSED BITUMINOUS PAVEMENT, SEE DETAIL
  - PROPOSED CONCRETE SIDEWALK, SEE DETAIL
  - PROPOSED CONCRETE PAVEMENT, SEE DETAIL



SITE 1A & 1B  
ALATUS – MULTIFAMILY HOUSING 1 &  
ENTREPRENEURIAL MARKET  
CIVIL DRAWING INDEX

C100	CIVIL NOTES AND LEGEND
C120	SITE DEMOLITION PLAN
C130	SWPPP NARRATIVE
C131	SWPPP SITE LAYOUT
C132	SWPPP DETAILS
C140	GRADING AND DRAINAGE PLAN
C150	UTILITY PLAN
C160	SITE LAYOUT AND PAVING PLAN
C170	CITY DETAILS
C171	CITY DETAILS

BKV  
GROUP

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PROJECT TITLE

BROOKLYN  
CENTER -  
ALATUS -  
MULTIFAMILY  
HOUSING 1

ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
2	06/14/2022	LAND USE APPLICATION
3	06/22/2022	REVISION

CERTIFICATION

DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066

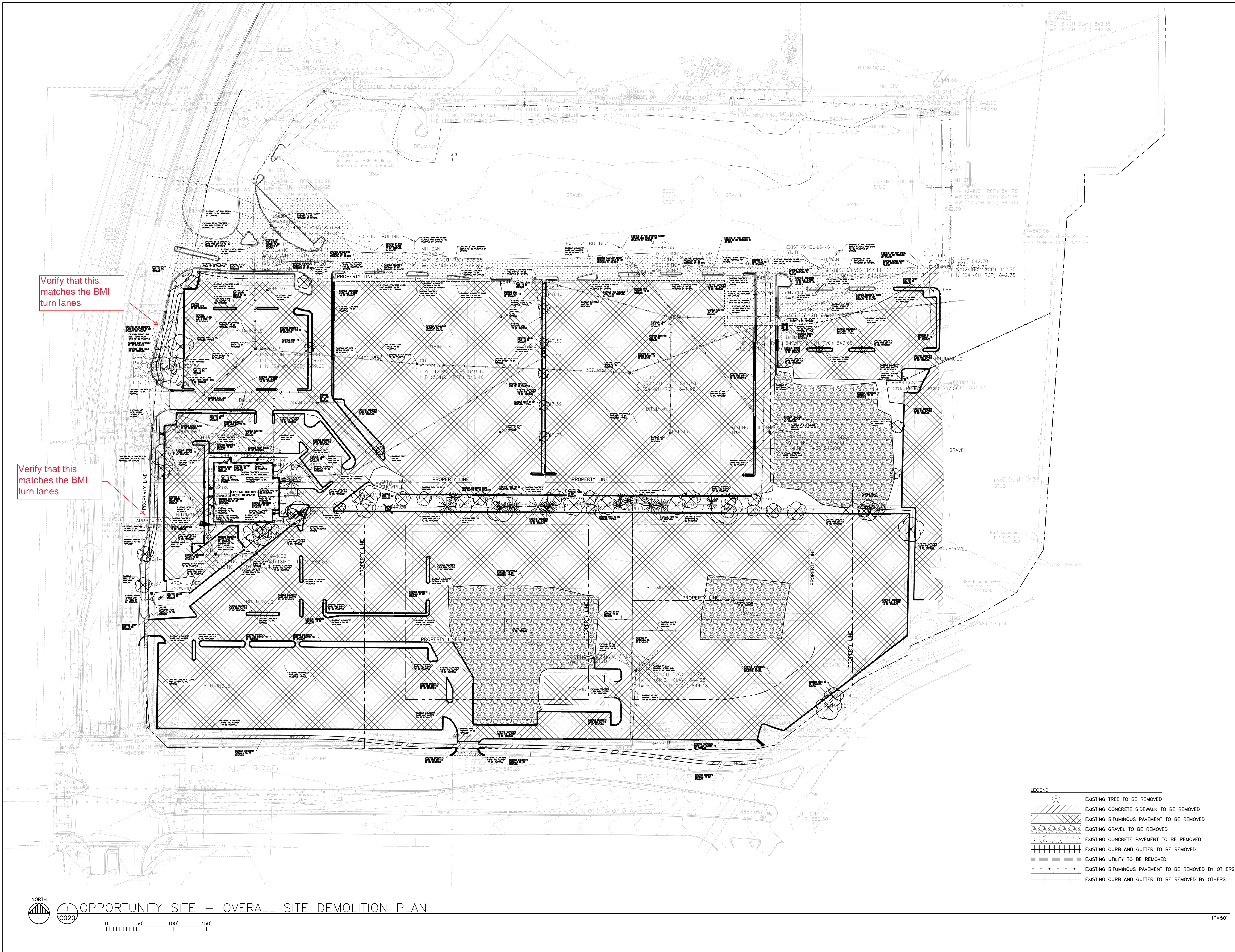
SHEET TITLE

ALATUS -  
MULTIFAMILY  
HOUSING 1 - CIVIL  
NOTES AND  
LEGEND

SHEET NUMBER

C100



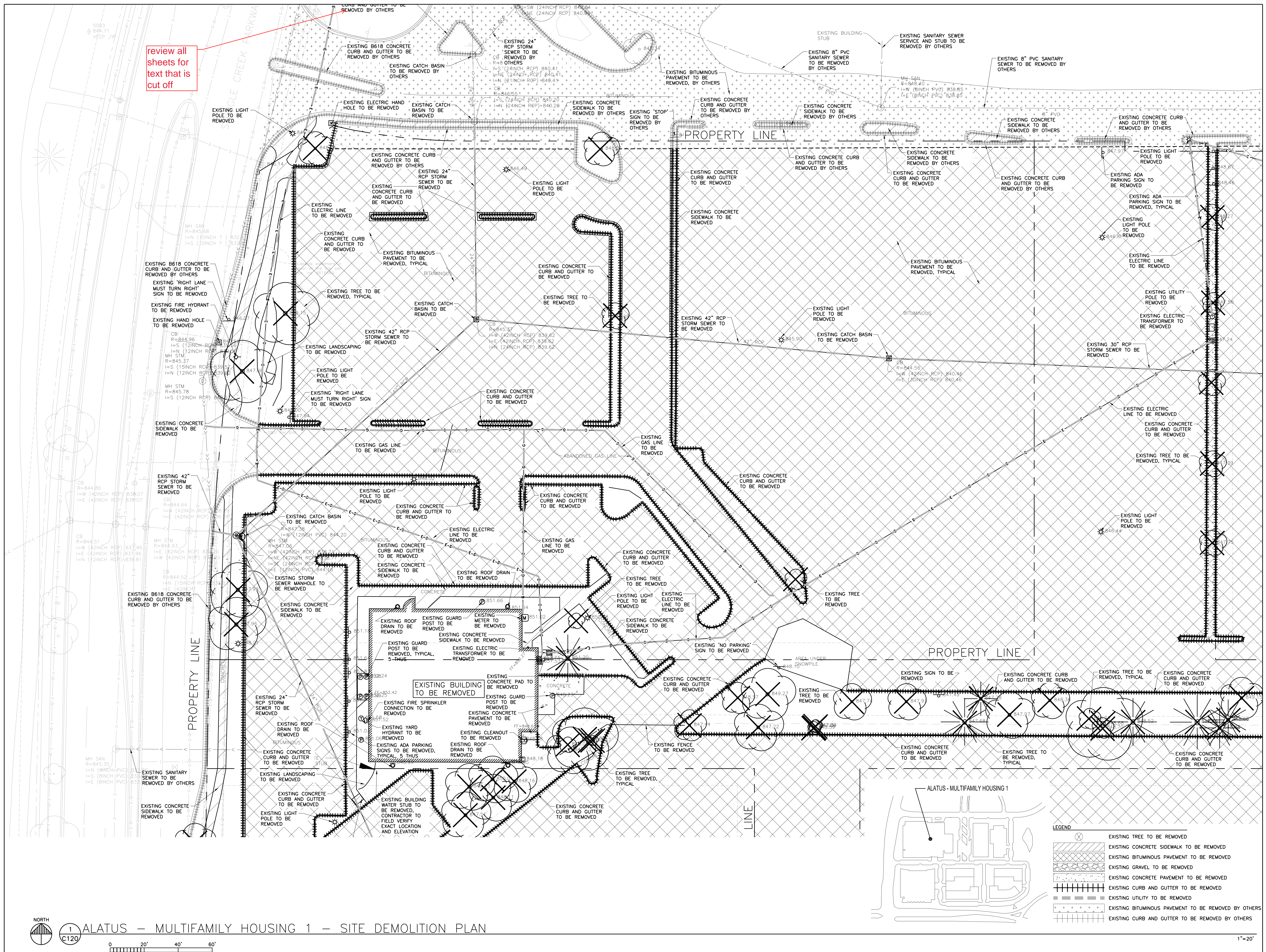


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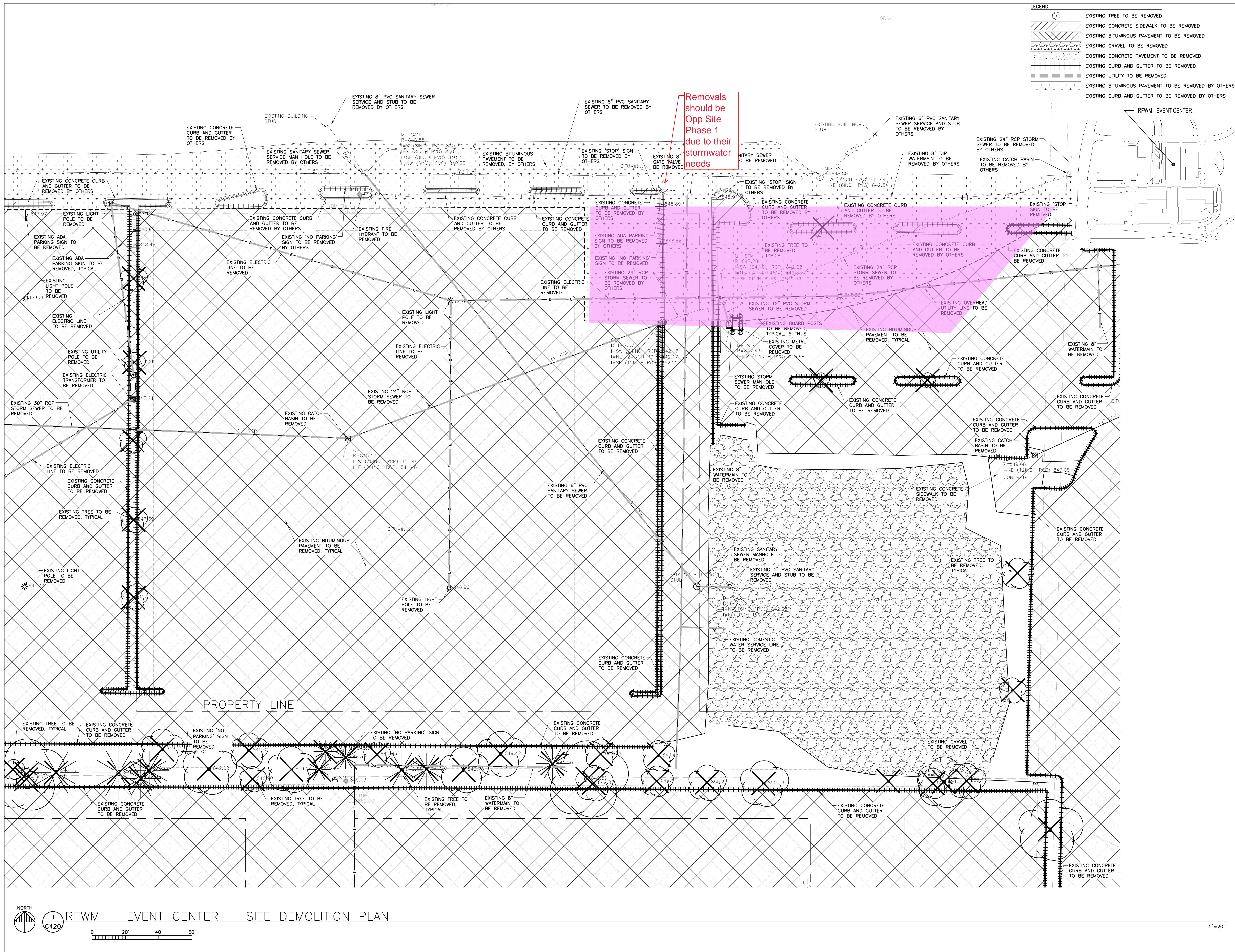
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PROJECT TITLE

BROOKLYN  
CENTER -  
ALATUS -  
MULTIFAMILY  
HOUSING 2

ISSUE #	DATE	DESCRIPTION
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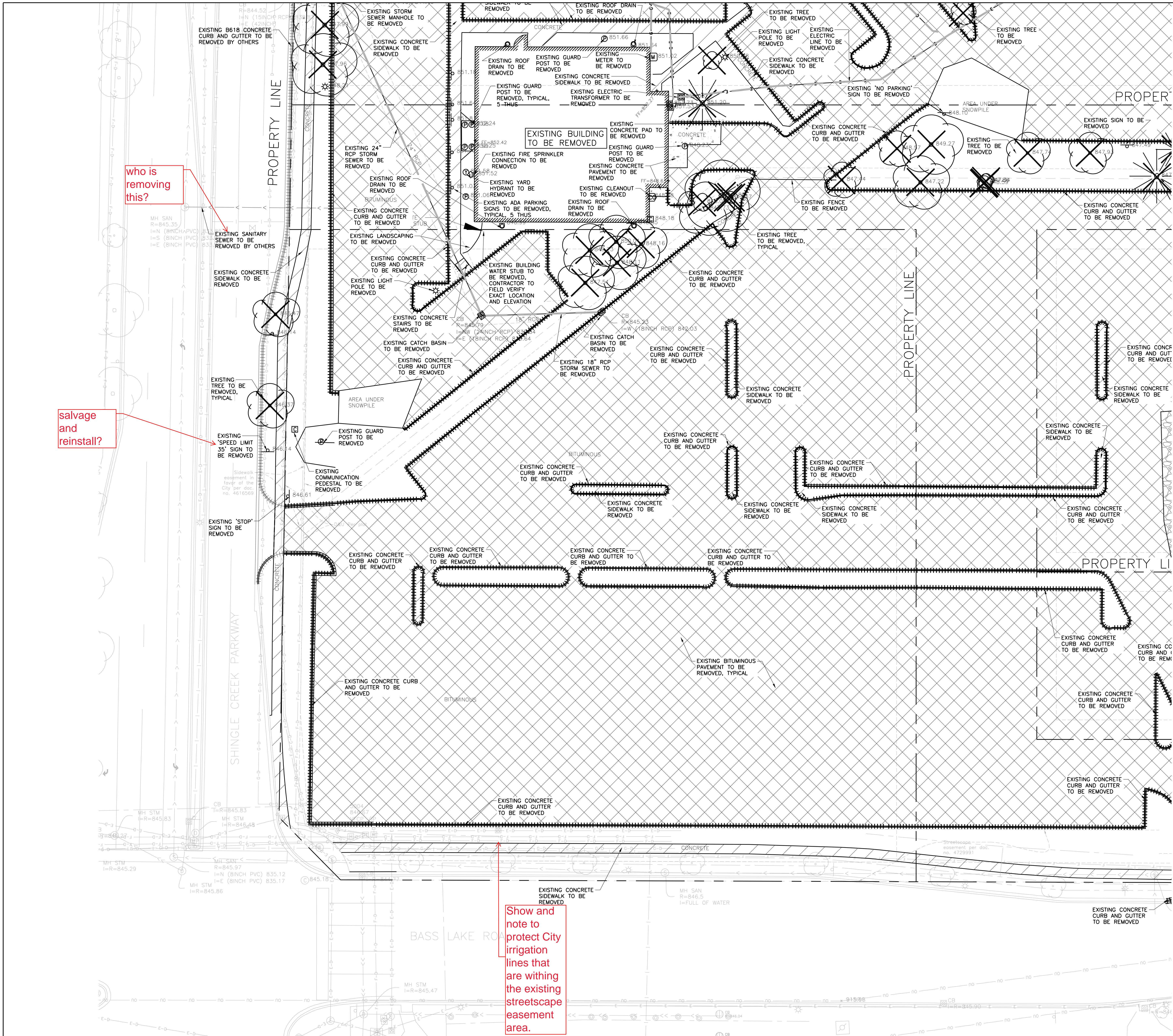
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SHEET TITLE

ALATUS -  
MULTIFAMILY  
HOUSING 2 -  
SITE DEMOLITION  
PLAN

SHEET NUMBER

C220



who is removing this?

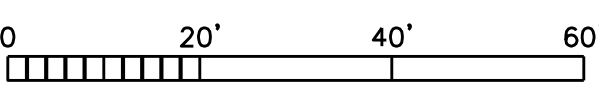
salvage and reinstall?

Show and note to protect City irrigation lines that are within the existing streetscape easement area.

LEGEND	
	EXISTING TREE TO BE REMOVED
	EXISTING CONCRETE SIDEWALK TO BE REMOVED
	EXISTING BITUMINOUS PAVEMENT TO BE REMOVED
	EXISTING GRAVEL TO BE REMOVED
	EXISTING CONCRETE PAVEMENT TO BE REMOVED
	EXISTING CURB AND GUTTER TO BE REMOVED
	EXISTING UTILITY TO BE REMOVED
	EXISTING BITUMINOUS PAVEMENT TO BE REMOVED BY OTHERS
	EXISTING CURB AND GUTTER TO BE REMOVED BY OTHERS



ALATUS - MULTIFAMILY HOUSING 2 - SITE DEMOLITION PLAN



1"=20'



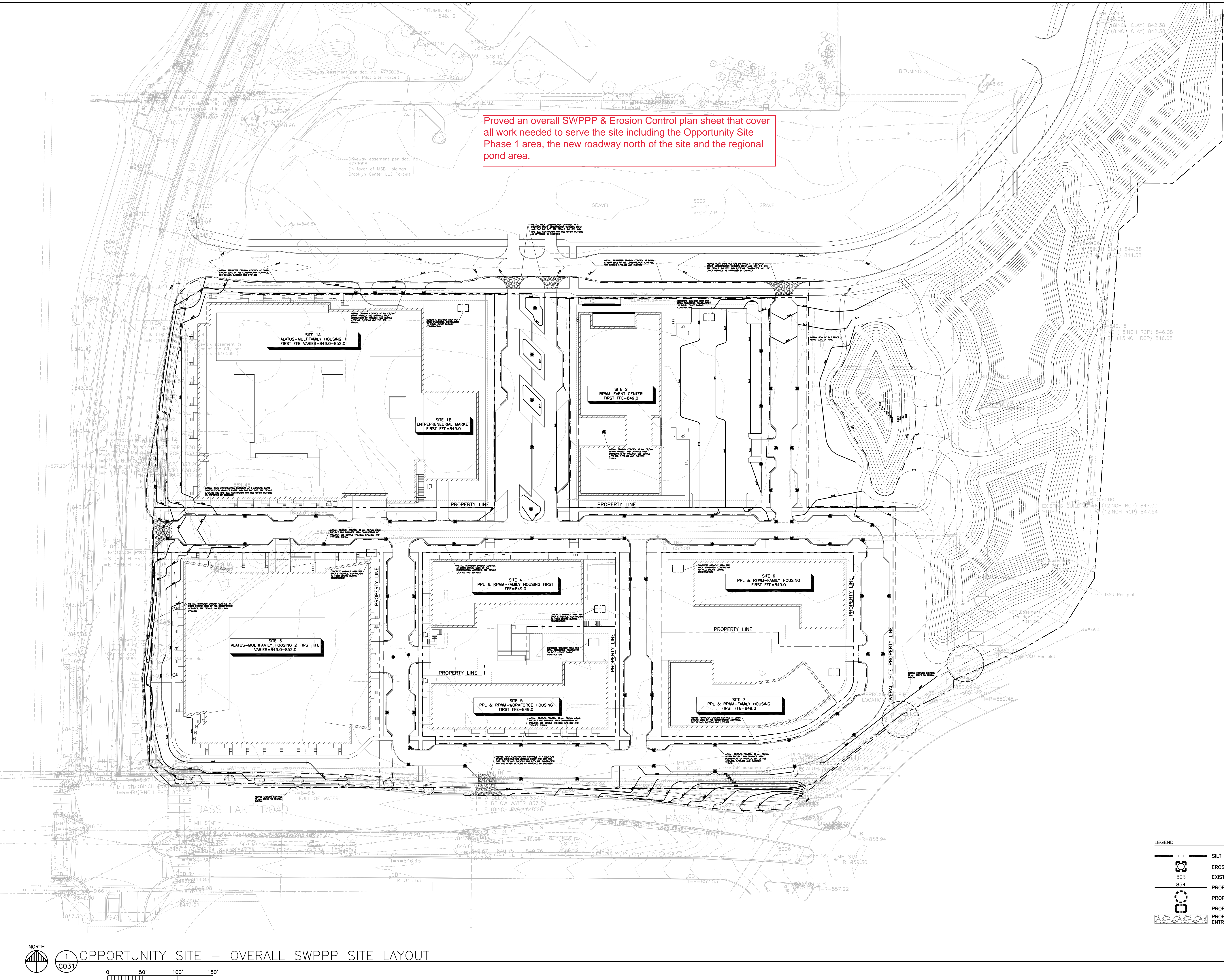




Proved an overall SWPPP & Erosion Control plan sheet that cover all work needed to serve the site including the Opportunity Site Phase 1 area, the new roadway north of the site and the regional pond area.

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SWPPP NARRATIVE

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN COMPLETED TO FULFILL THE PERMIT REQUIREMENTS OF THE GENERAL CONSTRUCTION STORMWATER PERMIT (NPDES/SDS PERMIT) FOR EROSION AND SEDIMENT CONTROL FROM SITES WITH MORE THAN 1 ACRE OF SOIL DISTURBANCE. A PERMIT FROM THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) IS REQUIRED FOR THIS PROJECT.

THE CITY OF BROOKLYN CENTER AND SHINGLE CREEK WATERSHED MANAGEMENT COMMISSION (SCWMC) HAVE JURISDICTIONAL AUTHORITY FOR EROSION CONTROL, SOIL CONTROL AND STORMWATER MANAGEMENT AT THIS SITE. IN ADDITION TO THE PROVISIONS OF THE PERMIT, EROSION PREVENTION AND SEDIMENTATION CONTROL SPECIFICATIONS AND PLANS HAVE BEEN CREATED. MPCA PROCEDURES FOR APPLICATION, MAINTENANCE AND TERMINATION OF THE PERMIT ARE DESCRIBED IN THE SPECIFICATIONS. ADDITIONAL INFORMATION AND GENERAL CONTRACTOR REQUIREMENTS ARE CONTAINED IN THE SPECIFICATIONS THAT ARE NOT INCLUDED ON THIS SHEET. THE GENERAL CONTRACTOR MUST FOLLOW PERMIT REQUIREMENTS AT ALL TIMES; NOTHING IN THE SWPPP OR SPECIFICATIONS SUPERCEDES THE GENERAL CONTRACTORS RESPONSIBILITIES UNDER THE PERMIT.

THIS SWPPP MUST BE KEPT ONSITE AND UPDATED AS NECESSARY TO REFLECT CHANGES TO SITE CONDITIONS, PLACEMENT OF CONTROL MEASURES AND ELEMENTS ONSITE. THIS DOCUMENT IS REQUIRED TO REFLECT CURRENT CONDITIONS BASED ON SITE INSPECTIONS AND ACTIONS.

1. PROJECT DESCRIPTION/LOCATION  
SEE STORMWATER MANAGEMENT CALCULATIONS AND REPORT AND SPECIFICATIONS FOR THIS SITE AND INCORPORATE INFORMATION INTO CONSTRUCTION PROCEDURES.

PROJECT NAME:	ALATUS – MULTIFAMILY HOUSING 1
PROJECT NUMBER:	21-066
PROJECT LOCATION:	BROOKLYN CENTER, MN
TOTAL DISTURBED AREA:	3.32 ACRES
PRE-CONSTRUCTION IMPERVIOUS SURFACE ACRES:	3.07 ACRES
POST-CONSTRUCTION IMPERVIOUS SURFACE ACRES:	RES
CUMULATIVE WORK:	
ECOLOGICALLY SENSITIVE AREAS IN PROJECT SCOPE?:	NO
TEMPORARY BASIN IN PROJECT SCOPE*?:	NO
TYPE AND DESIGN CRITERIA OF PERMANENT BMPS IN PROJECT SCOPE*:	REGIONAL STORMWATER POND

Provide additional information on what this means

\*LONG TERM MAINTENANCE OF PROJECT BMPS WILL BE CONDUCTED BY THE OWNER AND THE CITY OF BROOKLYN CENTER. DESIGN CALCULATIONS AND DETAILS ARE MAINTAINED WITH THE CITY OF BROOKLYN CENTER'S CONSULTANT, BOLTON + MENK.

THE PLANNED SCOPE OF THE PROJECT INCLUDES:

- CONSTRUCTION OF A NEW MULTIFAMILY BUILDING, ENTREPRENEURIAL CENTER DRIVEWAYS AND SIDEWALKS.
- STORMWATER FROM THIS SITE WILL BE COLLECTED THROUGH A SERIES OF CATCH BASINS AND PIPES AND DISCHARGED TO A PROPOSED REGIONAL STORMWATER POND DESIGNED BY BOLTON + MENK.

2. SPECIAL AND IMPAIRED WATERS

- SPECIAL AND IMPAIRED WATERS: THESE WETLANDS, FENS, TROUT STREAMS, ORWMS AND IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS) OF THE PROJECT LIMITS. SHINGLE CREEK IS AN IMPAIRED WATER WITHIN ONE MILE BUT WILL NOT BE AFFECTED OR IMPACTED BY THIS PROJECT.

WATER BODY NAME	REACH NUMBER	IMPAIRMENTS	APPLICABLE?
SHINGLE CREEK	07010206-506	CHLORIDE, DISSOLVED OXYGEN, E.COLI, INVERTIBIO	N

3. ECOLOGICAL AND OTHER SENSITIVE AREAS

IN ADDITION TO ANY ADDITIONAL PROVISIONS DICTATED IN THE RESPECTIVE PART BELOW, THE GENERAL CONTRACTOR SHALL PROVIDE SPECIAL CARE AND ATTENTION TO ECOLOGICAL OR OTHER SENSITIVE AREA(S) INDICATED IN THIS SECTION TO PREVENT TRAFFIC AND DISTURBANCE, AND TO PRESERVE VEGETATIVE COVER IN IDENTIFIED AREAS. IDENTIFIED AREAS AND APPROPRIATE SETBACKS SHALL BE MARKED IN THE FIELD BY THE GENERAL CONTRACTOR, AS SPECIFIED IN SUBSEQUENT PAGE DETAILS, IF APPLICABLE.

- PLACEMENT OF FILL IN WATERS OF THE STATE.
- DRINKING WATER SUPPLY MANAGEMENT AREA: THIS PROJECT IS LOCATED WITHIN A WELLHEAD PROTECTION AREA AND A MODERATELY VULNERABLE DRINKING WATER SUPPLY MANAGEMENT AREA (DWSMA). THE PROJECT IS NOT WITHIN A KNOWN KARST AREA. ADDITIONAL PROVISIONS APPLY TO THIS PROJECT.
- ENVIRONMENTAL REVIEW: THIS PROJECT IS NOT SUBJECT TO FINDINGS OF AN ENVIRONMENTAL, OR ARCHEOLOGICAL AND HISTORIC PLACES REVIEW. NO ADDITIONAL PROVISIONS APPLY TO THIS PROJECT.
- ENDANGERED OR THREATENED SPECIES: THERE ARE NO ENDANGERED OR THREATENED SPECIES AFFECTED BY THIS PROJECT. NO ADDITIONAL PROVISIONS APPLY TO THIS PROJECT.
- AQUATIC INVASIVE SPECIES: INFESTED WATERS AND WORK IN WATERS RESTRICTIONS: PROJECT SCOPE DOES NOT INCLUDE WORK IN OR NEAR PUBLIC WATERS. NO PUBLIC WATERS IN OR NEAR THE PROJECT SITE ARE LISTED OR SPECIALLY DESIGNATED BY THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES DEPARTMENT OF WATER (DOW).
- SOIL TYPES TYPICALLY FOUND ON THIS PROJECT SITE ARE LOAMY SANDS ACCORDING TO THE USDA WEB SOIL SURVEY.

4. PROJECT PERSONNEL AND SWPPP IMPLEMENTATION RESPONSIBILITIES

ORGANIZATION	CONTACT NAME & CERTIFICATION NUMBER	PHONE
OWNER: ALATUS	CHRIS OSMUNDSON	612-455-0912
ENGINEER FIRM NAME	PIERCE PINI + ASSOCIATES, INC.	763-537-1311
SWPPP PREPARER: PIERCE PINI AND ASSOCIATES	RHONDA PIERCE, P.E.	763-537-1311
GENERAL CONTRACTOR FIRM NAME:		
SOIL/EROSION CONSTRUCTION SITE MANAGER		
SOIL/EROSION CONSTRUCTION SITE MANAGER		

MPCA DUTY OFFICER 24-HOUR EMERGENCY SPILL NOTIFICATION: 651-649-5451 OR 800-422-0798

- THE OWNER AND THE NAMED GENERAL CONTRACTOR ARE CO-PERMITTEES FOR THE GENERAL CONSTRUCTION STORMWATER PERMIT (NPDES/SDS PERMIT). THE GENERAL CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE PERMIT AND STORMWATER COMPLIANCE POLICY AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA.
- THE GENERAL CONTRACTOR SHALL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP IS IMPLEMENTED AND MAINTAINED UNTIL THE PROJECT IS COMPLETE. THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND OWNER HAS COMPLETED THE FINAL INSPECTION.
- THE PROJECT ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE SWPPP. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) DESCRIBED BY THE SWPPP AT ALL STAGES OF CONSTRUCTION UNTIL THE OWNER HAS COMPLETED THE FINAL INSPECTION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE IMPLEMENTATION OF THE SWPPP INCLUDING THE ACTIVITIES OF ALL OF SUBCONTRACTORS DURING CONSTRUCTION.
- GENERAL CONTRACTOR SHALL PROVIDE AT LEAST ONE CERTIFIED INSTALLER FOR EACH SUBCONTRACTOR TO OVERSEE ALL INSTALLATION AND MAINTENANCE OF BMPS AND IMPLEMENTATION OF THE SWPPP. CERTIFICATION IS THROUGH THE UNIVERSITY OF MINNESOTA EROSION AND STORMWATER MANAGEMENT CERTIFICATION PROGRAM (<http://www.erosion.unm.edu/>) OR APPROVED EQUIVALENT.
- GENERAL CONTRACTOR SHALL PROVIDE AT LEAST ONE CERTIFIED INDIVIDUAL TO CONDUCT INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT. GENERAL CONTRACTOR SHALL PROVIDE EVIDENCE OF CERTIFICATION FOR EACH INDIVIDUAL AT THE PRE-CONSTRUCTION MEETING AND IS MAINTAINED BY GENERAL CONTRACTOR WITH PROJECT DOCUMENTATION.
- THIS SWPPP HAS BEEN PREPARED BY INDIVIDUAL(S) TRAINED IN ACCORDANCE WITH THE PERMIT'S TRAINING REQUIREMENTS FOR PREPARATION OF SWPPPS.

PREPARED BY:  
RHONDA PIERCE, P.E.  
PIERCE PINI AND ASSOCIATES  
[RHONDA@PIERCEPINI.COM](mailto:RHONDA@PIERCEPINI.COM)  
763-537-1311

TRAINING/CERTIFICATION:

DATE OF TRAINING/CERTIFICATION: 2020  
INSTRUCTOR(S): JOHN CHAPMAN  
CERTIFICATION EXPIRATION: MAY 31, 2023

5. SEQUENCE OF CONSTRUCTION

THE FOLLOWING DESCRIBES, IN GENERAL, THE SEQUENCE OF WORK PERFORMED ON THE SITE:

- GENERAL CONTRACTOR SHALL VERIFY THAT ALL PERMITS HAVE BEEN OBTAINED AND/OR OBTAIN THE NECESSARY PERMITS IN ACCORDANCE WITH THE MPCA POLICY.
- GENERAL CONTRACTOR SHALL INSTALL ALL PERIMETER AND DOWN-GRADIENT EROSION CONTROL AND SEDIMENT CONTROL BMPS, INCLUDING CONSTRUCTION ENTRANCES AND INLET PROTECTION DEVICES PRIOR TO SITE GRADING, EXCAVATION, STOCKPILING OR DISTURBING EXISTING VEGETATIVE COVER. GENERAL CONTRACTOR SHALL INSTALL ALL DOWN-GRADIENT PERIMETER CONTROLS BEFORE ANY UP-GRADIENT DISTURBANCE BEGINS.
- THE GENERAL CONTRACTOR SHALL ATTEMPT TO PHASE ALL WORK TO MINIMIZE EROSION AND MAINTAIN VEGETATIVE COVER TO THE EXTENT POSSIBLE. PRESERVE ALL NATURAL BUFFERS SHOWN ON PLAN.

- GENERAL CONTRACTOR SHALL MARK OR OTHERWISE DELINEATE AREAS ON THE SITE NOT TO BE DISTURBED, INCLUDING ECOLOGICALLY SENSITIVE AREAS, BEFORE CONSTRUCTION BEGINS.
- GENERAL CONTRACTOR SHALL ESTABLISH SITE LOCATION AND COMPLETE INSTALLATION OF ANY PORTABLE TOILET, FUELING AREA, SPILL KIT LOCATION, CONCRETE WASHOUT AREA, HAZARDOUS MATERIAL HANDLING AND STORAGE AREA, LITTER CONTROL DEVICE AREA, STAGING AREA, STOCK PILING AREA, AND OTHER SWPPP DESIGNATED AREAS. UPDATE ONSITE-COPY OF SWPPP TO REFLECT LOCATION OF THESE ITEMS.
- GENERAL CONTRACTOR SHALL ESTABLISH AND ENFORCE PROTOCOL REGARDING CLEANING OF ALL EQUIPMENT THAT HAS BEEN USED IN INFESTED WATERS OR WATERS WITH INVASIVE SPECIES TO PREVENT THE SPREAD OF BOTH AQUATIC AND TERRESTRIAL INVASIVES. GENERAL CONTRACTOR SHALL OBTAIN VERIFICATION FROM ALL SUBCONTRACTORS THAT EQUIPMENT IS CLEAN, OR NEW, AND WILL NOT SPREAD INVASIVES.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF SITE DEWATERING. DEWATERING SHALL FOLLOW MPCA AND CITY OF BROOKLYN CENTER STANDARDS AND REQUIREMENTS. SUBMIT PLAN OF ACTION FOR REVIEW PRIOR TO CONSTRUCTION.
- GENERAL CONTRACTOR SHALL ESTABLISH AND ENFORCE TRAFFIC FLOW AND PATTERNS, INCLUDING HAUL ROADS, AT PROJECT SITE TO MINIMIZE SOIL DISTURBANCE, TRACKING AND COMPACTION, AND TO PRESERVE NATIVE AND EXISTING VEGETATION. UPDATE ONSITE COPY OF SWPPP TO REFLECT HAUL ROADS AND OTHER SITE TRAFFIC PATTERNS.
- GENERAL CONTRACTOR SHALL PERFORM SITE GRADING, EXCAVATION, STOCKPILING WORK IN ACCORDANCE WITH THE SWPPP
  - STOCKPILES SHALL BE PROTECTED AROUND THE ENTIRE PERIMETER WHEN NOT ACTIVELY BEING WORKED; STOCKPILES ACTIVELY BEING WORKED SHALL BE STABILIZED AT THE END OF EACH WORK DAY. PRESERVED TOPSOIL STOCKPILES SHALL ADDITIONALLY BE COVERED. PLACE BMP A MINIMUM OF 5 FEET FROM THE TOE OF THE SLOPE WHERE FEASIBLE. STABILIZE ALL ERODABLE STOCKPILES.
  - DO NOT PLACE STOCKPILES IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES INCLUDING GUTTERS OR SWALES.
  - MINIMIZE SOIL COMPACTION AND PRESERVE TOPSOIL, UNLESS INFEASIBLE. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED.
- GENERAL CONTRACTOR SHALL PROVIDE GRADING AND BMP INSTALLATION TO LIMIT SOIL EXPOSURE ON ALL SLOPES OF 3:1V OR STEEPER TO AN UNBROKEN LENGTH OF 75 FEET OR LESS.
- GENERAL CONTRACTOR SHALL STABILIZE ALL EXPOSED SOILS NO LATER THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
  - GENERAL CONTRACTOR SHALL MAINTAIN 70% TEMPORARY COVER ON COMPLETED AREAS OF THE PROJECT SITE.
  - STABILIZE ALL AREAS OF THE SITE PRIOR TO THE ONSET OF WINTER.
  - STABILIZE WETTED PERIMETER OF DITCH (I.E. WHERE THE DITCH GETS WET).
- WHEN PERMANENT BMPS OR PORTIONS THEREOF ARE INSTALLED, GENERAL CONTRACTOR SHALL STAKE OR MARK THESE AREAS, AND INSTALL SEDIMENT PROTECTION UPGRADIENT OF COMPLETED AREAS TO AVOID COMPACTION AND FOULING OF SYSTEM ELEMENTS. PERMANENT BMPS SHALL BE CONSTRUCTED AND STABILIZED TO THE EXTENT PRACTICABLE PRIOR TO PLACING EQUIPMENT IN THE EVENT THAT PERMANENT STABILIZATION CANNOT BE ACHIEVED BEFORE BEING PLACED INTO SERVICE, TEMPORARY MEASURES TO PREVENT FOULING SHALL BE IN PLACE.
- GENERAL CONTRACTOR SHALL PERFORM SITE RESTORATION ACTIVITIES FOR PERMANENT VEGETATIVE ESTABLISHMENT. TEMPORARY BMPS SUCH AS MULCH AND HYDROSEED DO NOT CONSTITUTE PERMANENT VEGETATIVE COVER; SOD INSTALLATION MAY CONSTITUTE PERMANENT VEGETATIVE COVER.
- THE GENERAL CONTRACTOR SHALL ENSURE FINAL STABILIZATION:
  - ALL SOIL DISTURBING ACTIVITIES ARE COMPLETE AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DESTINY OF 70% OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ACHIEVED, INCLUDING STABILIZATION OF ALL DITCHES AND SWALES.
  - GENERAL CONTRACTOR SHALL ENSURE THAT ALL PERMANENT STORMWATER TREATMENT SYSTEMS ARE CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS IF INCLUDED WITHIN THE SCOPE OF THE PROJECT.
  - GENERAL CONTRACTOR SHALL REMOVE ALL TEMPORARY SYNTHETIC AND STRUCTURAL BMPS, EXCEPT AS SPECIFICALLY AUTHORIZED/REQUIRED BY CITY OF BROOKLYN CENTER.
  - GENERAL CONTRACTOR SHALL REMOVE ALL SEDIMENTS FROM STORMWATER CONVEYANCES AND PERMANENT WATER QUALITY BASINS.
  - GENERAL CONTRACTOR SHALL REQUEST A FINAL INSPECTION FROM THE CITY OF BROOKLYN CENTER PRIOR TO INITIATING PERMIT TERMINATION.
- PERMIT SHALL BE TERMINATED IN ACCORDANCE WITH MPCA POLICY.

6. SITE INSPECTION AND MAINTENANCE

- INSPECT THE ENTIRE CONSTRUCTION SITE AND DOWNGRADIENT ADJACENT SITES/AREAS, INCLUDING THE FOLLOWING:
  - INSPECT SURFACE WATER, INCLUDING DRAINAGE DITCHES, AND OFF-SITE PROPERTIES FOR SIGNS OF EROSION AND SEDIMENT DEPOSITION.
  - INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF TRACKING ONTO PAVED SURFACES.
  - INSPECT INFILTRATION AREAS FOR SIGNS OF SEDIMENT DEPOSITION AND COMPACTION, AND TO ENSURE EQUIPMENT IS NOT BEING DRIVEN INTO THE AREA.
  - INSPECT, MONITOR AND MAINTAIN ALL WATER QUALITY MANAGEMENT, EROSION PREVENTION AND SEDIMENT CONTROL BMPS.
  - INSPECT, MONITOR AND MAINTAIN POLLUTION PREVENTION BMPS.
- INSPECTION FREQUENCY: GENERAL CONTRACTOR SHALL CONDUCT A SITE STORMWATER INSPECTION A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. INSPECTIONS MAY BE SUSPENDED DUE TO FROZEN GROUND CONDITIONS UNTIL FIRST RUNOFF OCCURS OR CONSTRUCTION ACTIVITIES RESUME, WHICHEVER COMES FIRST. GENERAL CONTRACTOR SHALL NOTE EXACT DATE OF LAST INSPECTION PRIOR TO WINTER SUSPENSION AND FIRST DATE WHEN CONSTRUCTION RESUMES. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INSPECTIONS UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND THE NOT HAS BEEN SUBMITTED TO THE MPCA, OR UNTIL PERMIT COVERAGE HAS BEEN TRANSFERRED TO ANOTHER PERMITTEE.
- RECORD ALL INSPECTIONS, MAINTENANCE AND CORRECTIVE ACTIONS CONDUCTED DURING CONSTRUCTION ON A PROVIDED INSPECTION FORM WITHIN 24 HOURS OF THE ACTION. DATE AND INITIAL THE ON-SITE SWPPP WITH ANY CHANGES TO REFLECT ON-SITE CONDITIONS. COPIES OF ALL SHALL BE SUBMITTED TO THE CIVIL ENGINEER.
- EROSION CONTROL AND MAINTENANCE BY GENERAL CONTRACTOR ACCORDING TO THE DETAILS INCLUDED IN THE CONSTRUCTION DOCUMENTS AND IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S RECOMMENDATIONS. BMPS MUST BE OPERATIONALLY FUNCTIONAL AND ADEQUATE. ALL NONFUNCTIONAL BMPS MUST BE REPAIRED OR REPLACED WITHIN 24 HOURS OF DISCOVERY OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW.
- THE GENERAL CONTRACTOR SHALL RESPOND TO CHANGING SITE CONDITIONS AND IMPLEMENT/SUPPLEMENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES UTILIZED TO PROVIDE ADEQUATE PROTECTION OF DISTURBED SOILS AND ADEQUATE PREVENTION OF SEDIMENT TRANSPORT OFF-SITE. UPDATE SWPPP DOCUMENTS WHEN CHANGES ARE MADE.
- WHEN AN INSPECTION FINDS EROSION PREVENTION AND SEDIMENT CONTROL BMPS THAT ARE NONFUNCTIONAL OR INADEQUATE, ANY NONFUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS AFTER DISCOVERY OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW. THE GENERAL CONTRACTOR SHALL ALSO PLACE ANY ADDITIONAL EROSION CONTROL MEASURES DEEMED NECESSARY BY THE CITY OF BROOKLYN CENTER OR A/E WITHIN 24 HOURS OF NOTICE.
  - IF DOWN GRADIENT SEDIMENT CONTROLS ARE OVERLOADED, THE GENERAL CONTRACTOR MUST INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE OVERLOADING. THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES.
- REPAIR OR REPLACE INLET PROTECTION DEVICES WHEN THEY BECOME NONFUNCTIONAL OR SEDIMENT REACHES ONE-HALF THE DEPTH OF THE DEVICE. SITE INLETS REMOVED IN RESPONSE TO A PUBLIC SAFETY CONCERN MUST BE RETURNED TO SERVICE AS SOON AS THE THREAT (EG. FLOODING) HAS RECEDED.
- REPAIR, REPLACE OR SUPPLEMENT PERIMETER CONTROL DEVICES WHEN THEY BECOME NON-FUNCTIONAL OR THE SEDIMENT REACHES ONE-HALF THE HEIGHT OF THE DEVICE. GENERAL CONTRACTOR SHALL REPAIR OR REPLACE DEVICE THAT IS NONFUNCTIONAL BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW. PERIMETER CONTROL DEVICES REMOVED IN RESPONSE TO A PUBLIC SAFETY CONCERN MUST BE RETURNED TO SERVICE AS SOON AS THE THREAT HAS RECEDED.
- TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND SEDIMENT REMOVED BY GENERAL CONTRACTOR ONCE THE SEDIMENT COLLECTED REACHES ONE-HALF THE STORAGE VOLUME WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW.
- ALL SEDIMENT DEPOSITS WITHIN SURFACE WATERS OR STORMWATER CONVEYANCES MUST BE REMOVED AND RESTABILIZED BY GENERAL CONTRACTOR WITHIN 7 DAYS OF DISCOVERY, INCLUDING DELTAS AND STORM SEWER SEDIMENT DEPOSITS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED, IF NECESSARY, FOR SUCH SEDIMENT REMOVAL.
- MAINTAIN EXISTING PAVED SURFACES CLEAN OF SEDIMENT. CONSTRUCTION ENTRANCES AND PUBLIC AND PRIVATE ROADS LEADING TO AND FROM THE CONSTRUCTION ENTRANCE SHALL BE CHECKED DAILY BY GENERAL CONTRACTOR. IF THE ENTRANCE BECOMES INUNDATED WITH SEDIMENT, THE GENERAL CONTRACTOR SHALL CLEAN OR REPLACE AS APPROPRIATE. PUBLIC AND PRIVATE ROADS LEADING TO AND FROM THE CONSTRUCTION ENTRANCE SWEEP OR OTHERWISE CLEANED DAILY. GENERAL CONTRACTOR SHALL EXTEND SWEEPING TO THE EXTREMITY OF ANY SEDIMENT TRACKING THAT OCCURS OFF-SITE. USE MECHANICAL METHODS TO REMOVE SOLIDS FIRST, FOLLOWED BY WET METHODS, ONLY AS NEEDED. SWEEPING IS NOT A SUBSTITUTE FOR PROPER MAINTENANCE OF CONSTRUCTION ENTRANCES.
- GENERAL CONTRACTOR SHALL REMOVE ANY OFF-SITE SEDIMENT ACCUMULATIONS IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS. STREET SWEEPING MAY HAVE TO OCCUR MORE FREQUENTLY THAN DESCRIBED ABOVE TO MINIMIZE OFF-SITE IMPACTS. THERE ARE DOWNSTREAM WATERWAYS THAT WOULD BE ADVERSELY AFFECTED BY VEHICULAR TRACKED SOILS. STREET SWEEPING IS IMPERATIVE TO MAKES SURE THIS DOES NOT OCCUR.
- ALL INFILTRATION/FILTRATION AREAS MUST BE INSPECTED BY GENERAL CONTRACTOR TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION IS ACCUMULATING OVER THE INFILTRATION/FILTRATION AREA. SEDIMENT ACCUMULATED OVER INFILTRATION/FILTRATION SHALL BE REMOVED BY GENERAL CONTRACTOR.
- SEE CIVIL NOTES, DETAILS AND DRAWINGS ON CONSTRUCTION DOCUMENTS.

7. POLLUTION PREVENTION AND SPILL RESPONSE

- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING POLLUTION PREVENTION MEASURES AT THE SITE, AS DESCRIBED IN DETAIL IN THE EROSION PREVENTION AND SEDIMENTATION CONTROL SPECIFICATIONS SECTION 312500. IN GENERAL, THE FOLLOWING MEASURES ARE REQUIRED AT PROJECT SITES.
  - BUILDING MATERIALS AND WASTES WITH THE POTENTIAL TO CONTAMINATE STORMWATER SHALL BE STORED INSIDE OR UNDER COVER IN A DESIGNATED AREA, AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP.
  - LITTER AND SOLID WASTE SHALL BE PLACED INTO COVERED CONTAINERS AT A DESIGNATED AREA AT THE SITE AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP.
  - ON-SITE FUELING SHALL BE CONDUCTED IN DESIGNATED AREAS ONLY AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP.
  - A SPILL RESPONSE KIT AT EACH LOCATION SPECIFIC TO THE MATERIALS USED AT THE PROJECT SITE AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP.
  - PORTABLE TOILETS SHALL BE SECURED IN PLACE TO PREVENT BEING TIPPED OR KNOCKED OVER AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP.
  - VEHICLE AND EQUIPMENT WASHING IS PROHIBITED AT PROJECT SITES.
  - CONCRETE WASH OUT WASTE, INCLUDING WASTE CURED CONCRETE, SHALL BE MANAGED OFF-SITE OR MANAGED ON-SITE IN A DESIGNATED CONCRETE WASHOUT AREA AND SHALL BE INDICATED BY THE GENERAL CONTRACTOR ON THE SWPPP SITE MAP. ON-SITE BATCH PLANTS AND MORTAR MIX AREAS ARE CONCRETE PRODUCTS AND SHALL FOLLOW ALL STORMWATER MANAGEMENT CONTROLS AS NOTED HEREIN AND WITHIN NPDES PERMIT.
  - THE GENERAL CONTRACTOR SHALL USE OR ENSURE USE OF METHODS AND OPERATIONS WHICH PREVENT DUST, PARTICLES, PEICES AND OTHERS FROM BEING RELEASED OR FUTURE VEGETATED AREAS OR FROM LEAVING THE PROJECT SITE AND ENTERING A STORMWATER CONVEYANCE SYSTEM, INCLUDING A DITCH OR CULVERT.
  - IN THE EVENT OF A SPILL AT THE PROJECT SITE WITH A RELEASE OR POTENTIAL RELEASE TO THE ENVIRONMENT, THE GENERAL CONTRACTOR SHALL CONTACT WITH THE STATE DUTY OFFICER.

8. PERMANENT STORMWATER PRACTICES

- CONSTRUCTION SEQUENCING OF STORM SEWER PRACTICES:
  - STORM SEWER ROUTING DESIGN IS PROVIDED ON THE UTILITY PLANS.
  - INSTALLATION OF STORM SEWER PRACTICES SHALL BE DONE DURING PERIODS OF DRY WEATHER AND COMPLETED BEFORE A RAINFALL EVENT.
  - SHOP DRAWINGS OF ALL SYSTEMS NEED TO BE APPROVED PRIOR TO CONSTRUCTION.
  - NOTIFY CIVIL ENGINEER OF WORK BEING DONE ON STORM SEWER SYSTEMS AND THE SCHEDULE OF CONSTRUCTION.
  - MAINTAIN EROSION AND SEDIMENT CONTROL ON CONTRIBUTING AREAS TO AVOID CLOGGING OF SYSTEM.
  - CONSTRUCT STORM SEWER SYSTEMS PER DRAWINGS AND SPECIFICATIONS.
  - COMPLETE CONSTRUCTION OF PAVEMENT AFTER STORM SEWER SYSTEM IS INSTALLED. AFTER PAVEMENT IS INSTALLED, VERIFY THAT SYSTEMS ARE CLEAR AND FULLY FUNCTIONAL. VACUUM AND CLEAN SYSTEMS AS NEEDED SO THEY ARE FULLY FUNCTIONAL AT PROJECT CLOSEOUT.
  - INSTALL LANDSCAPING AND PLANTING MATERIALS PER LANDSCAPE DRAWINGS AND SPECIFICATIONS.
  - REMOVE ALL TEMPORARY EROSION CONTROL BMP'S AFTER PAVING IS COMPLETE AND TURF HAS BEEN ESTABLISHED.
  - GENERAL CONTRACTOR SHALL TAKE PHOTOGRAPHS AND MEASUREMENTS OF ALL STORM SEWER SYSTEMS THROUGHOUT CONSTRUCTION. DOCUMENTATION OF CONSTRUCTION SHALL BE SUBMITTED TO THE CIVIL ENGINEER AT THE CLOSEOUT OF THE PROJECT. CLOSEOUT DOCUMENTATION SHALL INCLUDE PHOTOGRAPHS AND MEASUREMENTS OF SYSTEM DURING CONSTRUCTION, TESTING REPORTS AND OBSERVATIONS AND REDLINE DRAWINGS OF ANY FIELD MODIFICATIONS MADE DURING CONSTRUCTION.
  - THE GENERAL CONTRACTOR SHALL SUBMIT AN AS-BUILT SURVEY OF THE COMPLETED SITE PREPARED AND SIGNED BY A LICENSED SURVEYOR TO THE CIVIL ENGINEER AT THE END OF THE PROJECT. AS-BUILT SURVEY SHALL INCLUDE ENOUGH INFORMATION TO VERIFY THE CONSTRUCTED TOPOGRAPHY, UTILITY AND SITE ELEMENTS. COORDINATE WITH OWNER AND CIVIL ENGINEER FOR SCHEDULE FOR WHEN THIS SHALL BE COMPLETED. A COPY OF THE CADD FILE AND CERTIFIED PDF FILE SHALL BE PROVIDED TO CIVIL ENGINEER.
  - GENERAL CONTRACTOR TO COMPLETE NOTICE OF TERMINATION (NOT) UPON COMPLETION OF PROJECT AND SUBMIT TO OWNER.
  - SEE NOTES ON SHEET C100 AND SPECIFICATION 312500 FOR FURTHER INFORMATION.

SOIL ASSOCIATION	HYDROLOGIC SOIL GROUP
POORLY GRADED SAND (SP)	B

ESTIMATED BMP QUANTITIES	
SILT FENCE	2,000 LF
FILTER LOGS	1,000 LF
CATCH BASIN INSERTS	16 EA
ROCK CONSTRUCTION ENTRANCE	40 CY EA

NOTES:

- QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL NOT RELY ON THESE QUANTITIES FOR THEIR BID AND CIVIL ENGINEER IS NOT RESPONSIBLE FOR COST ESTIMATES OR ACTUAL CONSTRUCTION COSTS.

CONTACT INFORMATION	
OWNER	

BUSINESS:  
CONTACT PERSON, TITLE:  
ADDRESS:  
TELEPHONE:  
EMAIL:  
ALTERNATE CONTACT PERSON, TITLE:  
ADDRESS:  
TELEPHONE:  
EMAIL:

PARTY RESPONSIBLE FOR LONG TERM MAINTENANCE	
---	--

BUSINESS:  
CONTACT PERSON, TITLE:  
ADDRESS:  
TELEPHONE:  
EMAIL:

CONTRACTOR	
------------	--

BUSINESS:  
CONTACT PERSON, TITLE:  
ADDRESS:  
TELEPHONE:  
EMAIL:  
ALTERNATE CONTACT PERSON, TITLE:  
ADDRESS:  
TELEPHONE:  
EMAIL:

CONTRACTOR'S ONSITE REPRESENTATIVE	
------------------------------------	--

BUSINESS:  
CONTACT PERSON, TITLE:  
ADDRESS:  
TELEPHONE:  
EMAIL:  
ALTERNATE CONTACT:  
TELEPHONE:  
EMAIL:

MN STATE DUTY OFFICER	
-----------------------	--

PHONE: 651-649-5457  
ALTERNATE: 1-800-422-0798

NOTE: CONTRACTOR'S ONSITE REPRESENTATIVE SHALL BE COMPLETED ON THE PLAN SET KEPT IN THE CONSTRUCTION TRAILER. THIS INFORMATION SHALL ALSO BE PROVIDED TO THE OWNER AND CIVIL ENGINEER.

CONSULTANTS

PROJECT TITLE

ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
2	06/14/2022	LAND USE APPLICATION
3	06/22/2022	REVISION

CERTIFICATION

DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066

SHEET TITLE

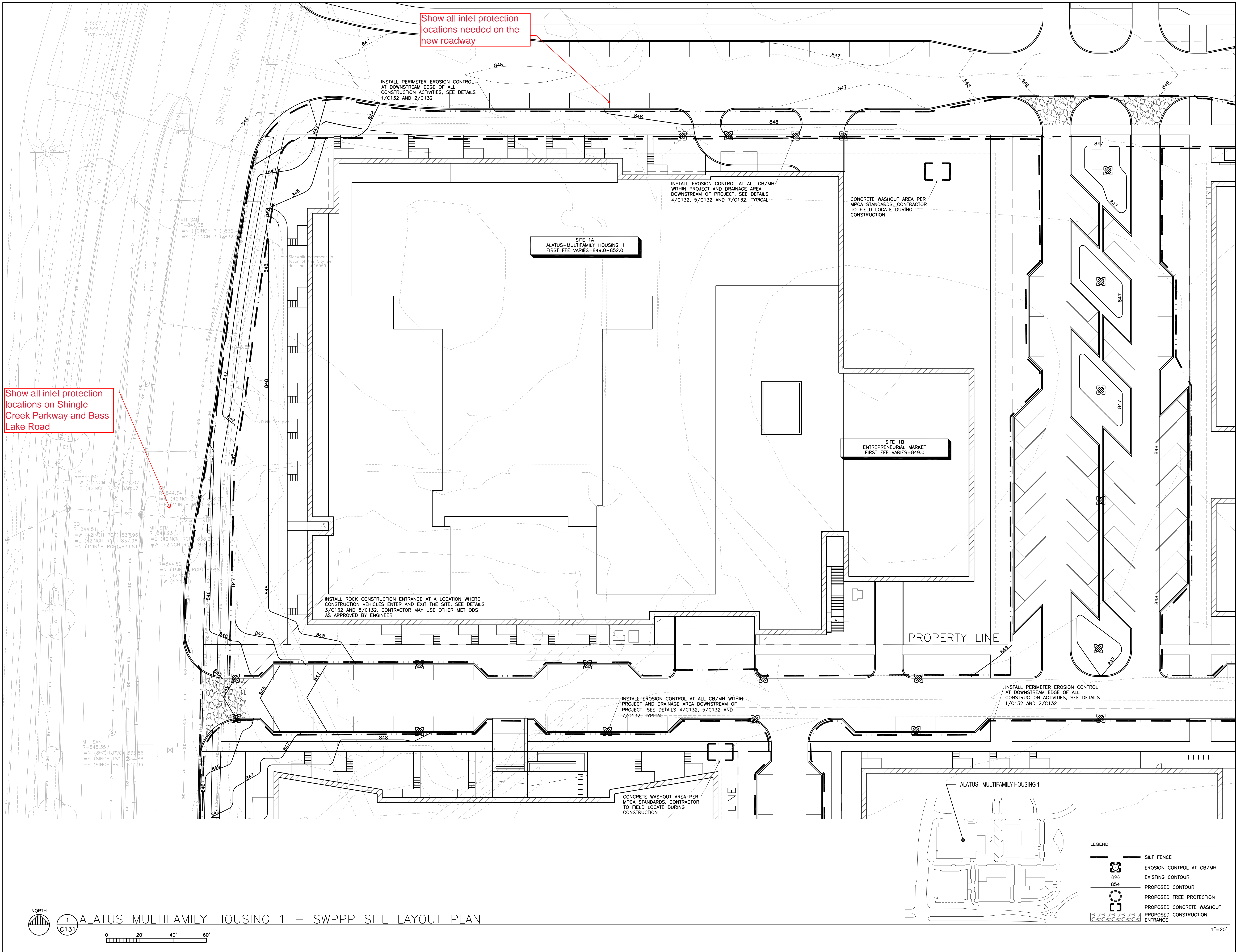
SHEET NUMBER



SITE LOCATION MAP

MAP NOT TO SCALE  
LATITUDE: 45.0599  
LONGITUDE: -93.3108





BKV

GROUP

Architecture  
Interior Design  
Landscape Architecture  
Engineering

222 North Second Street  
Long & Kees Bldg  
Suite 101  
Minneapolis, MN  
55401  
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CONSULTANTS

PIERCE PINI &  
ASSOCIATES

9298 CENTRAL AVENUE NE,  
SUITE 312  
BLAINE, MN 55434  
TEL 763.537.1311

PROJECT TITLE

BROOKLYN  
CENTER -  
ALATUS -  
MULTIFAMILY  
HOUSING 1

ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
2	06/14/2022	LAND USE APPLICATION
3	06/22/2022	REVISION

CERTIFICATION

DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066

SHEET TITLE

ALATUS -  
MULTIFAMILY  
HOUSING 1 -  
SWPPP SITE  
LAYOUT

SHEET NUMBER

C131

1"=20'

LEGEND

SILT FENCE

EROSION CONTROL AT CB/MH

EXISTING CONTOUR

PROPOSED CONTOUR

PROPOSED TREE PROTECTION

PROPOSED CONCRETE WASHOUT

PROPOSED CONSTRUCTION ENTRANCE

848

847

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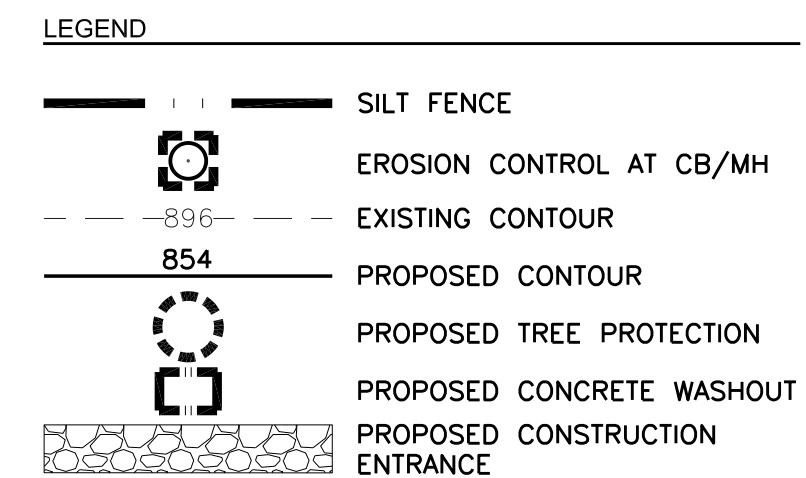
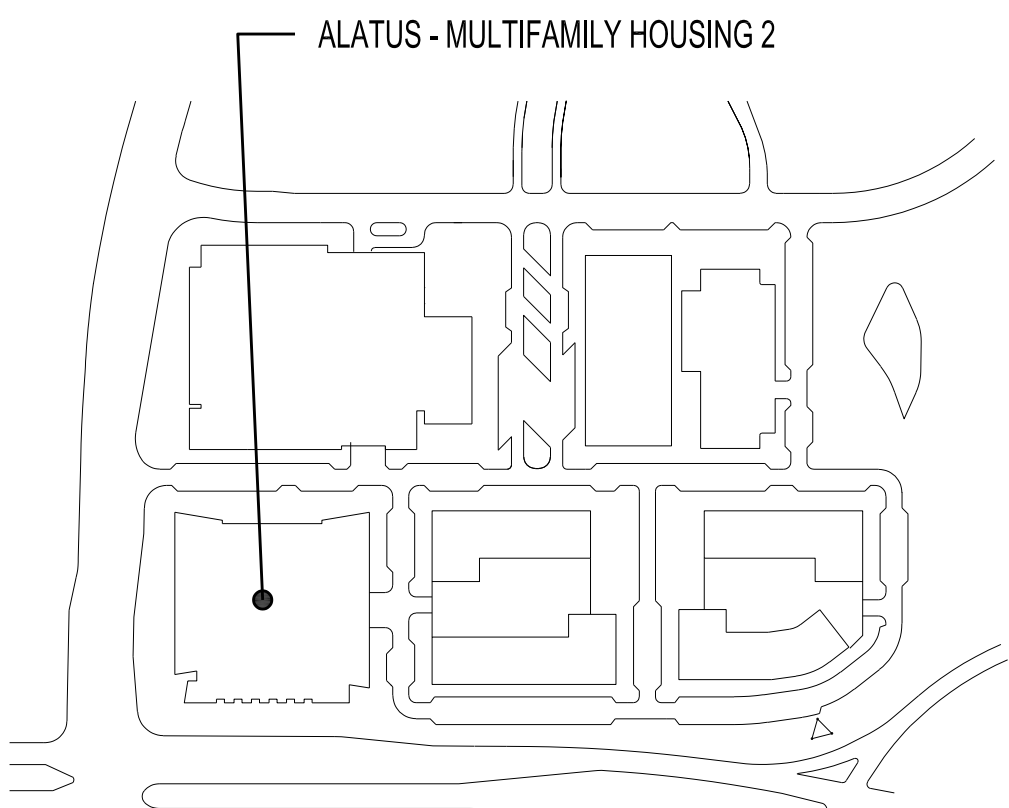
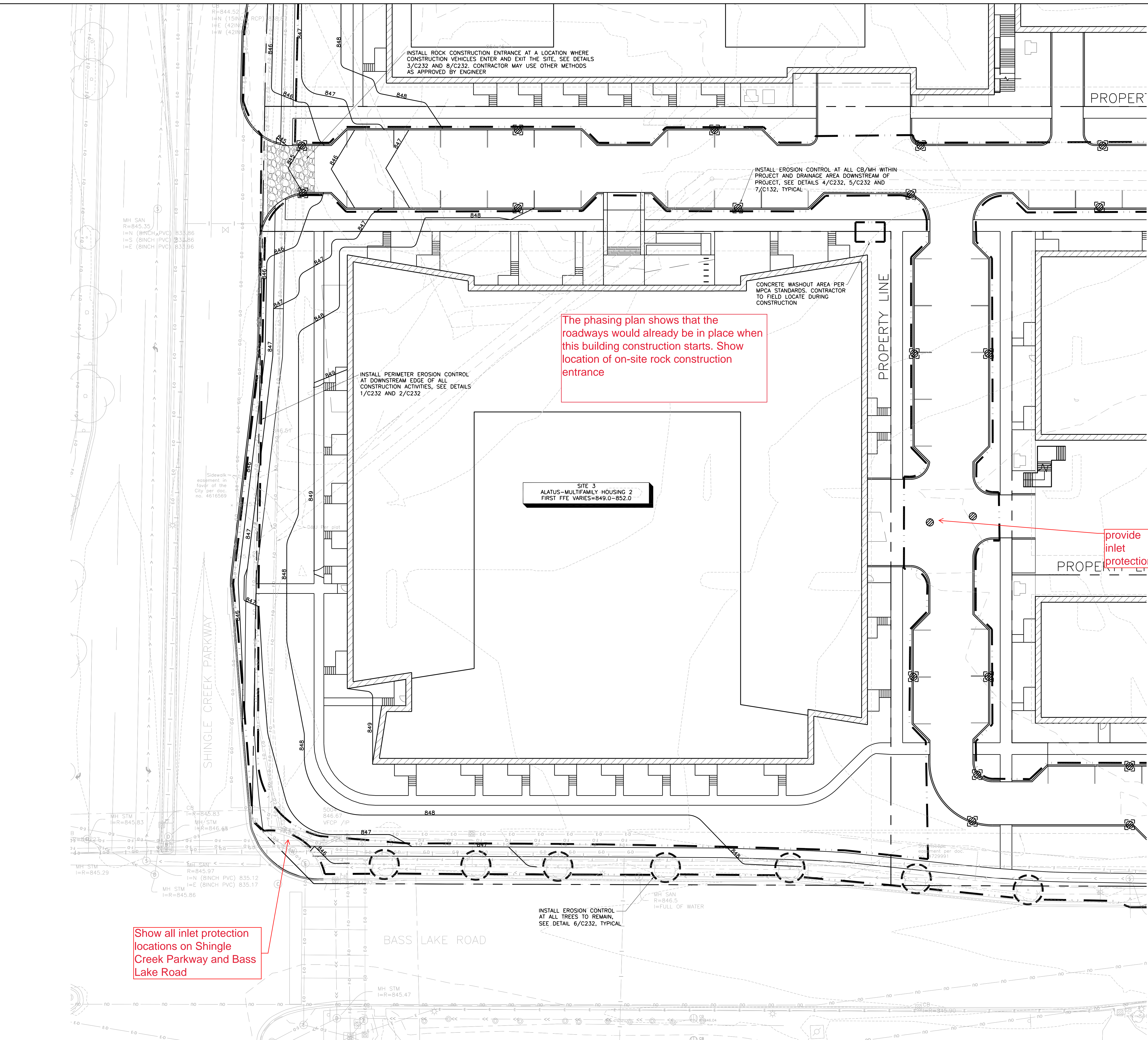
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ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
2	06/14/2022	LAND USE APPLICATION
3	06/22/2022	REVISION

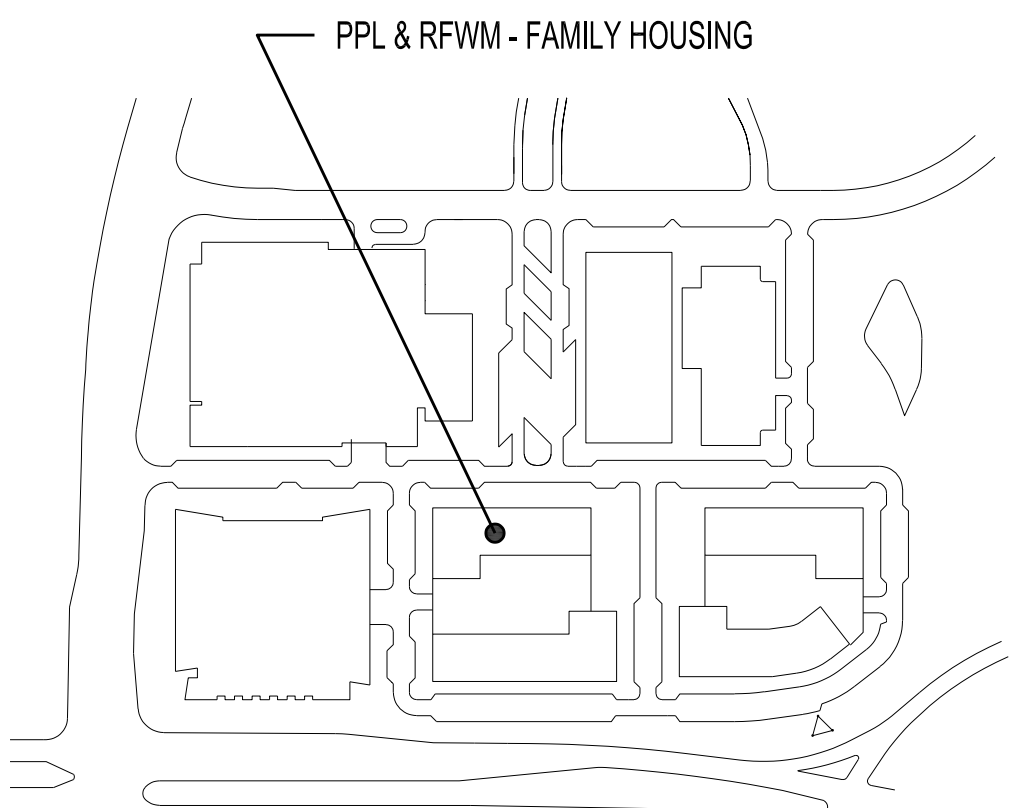
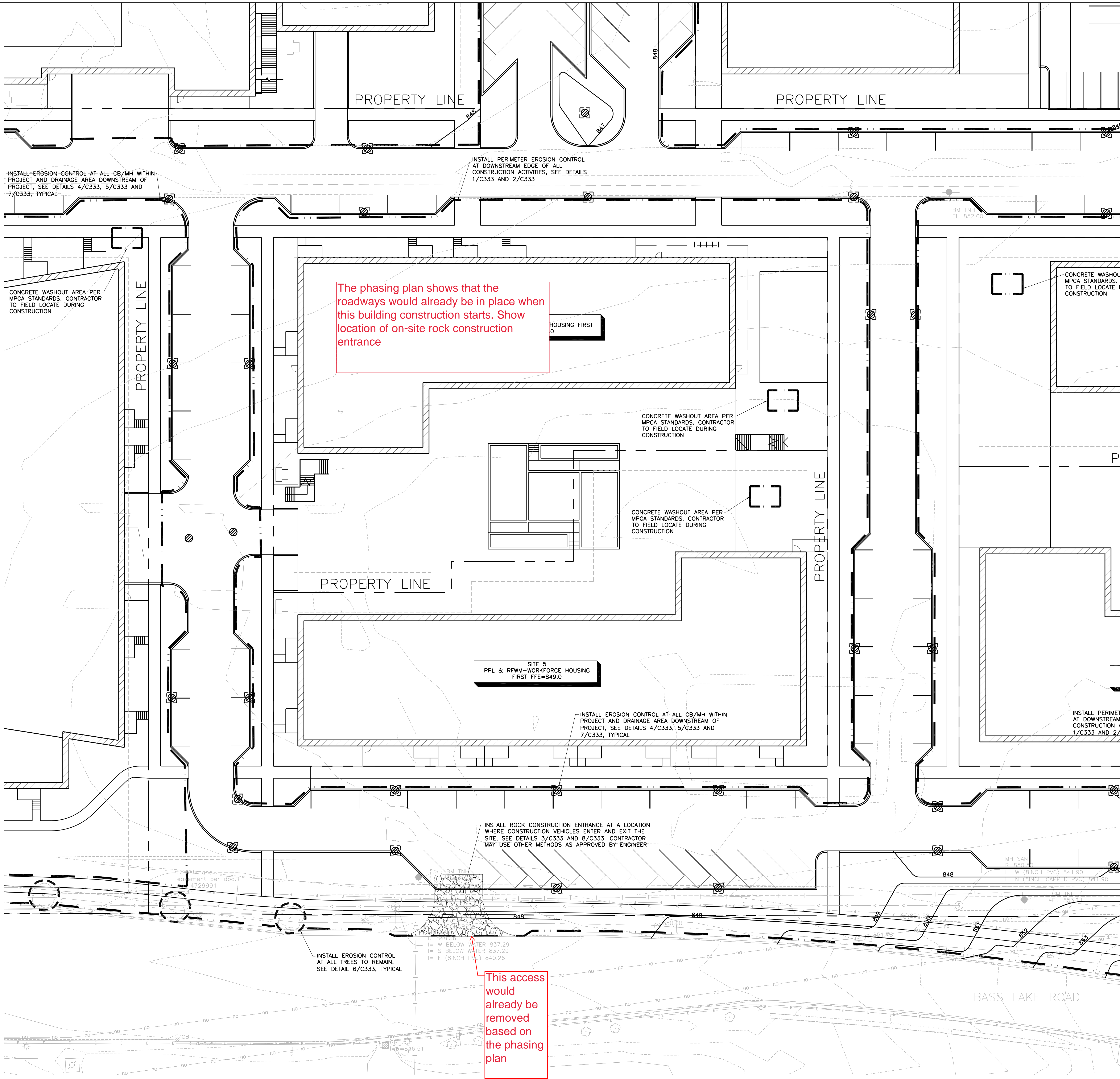
DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066





ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
2	06/14/2022	LAND USE APPLICATION
3	06/22/2022	REVISION

DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066

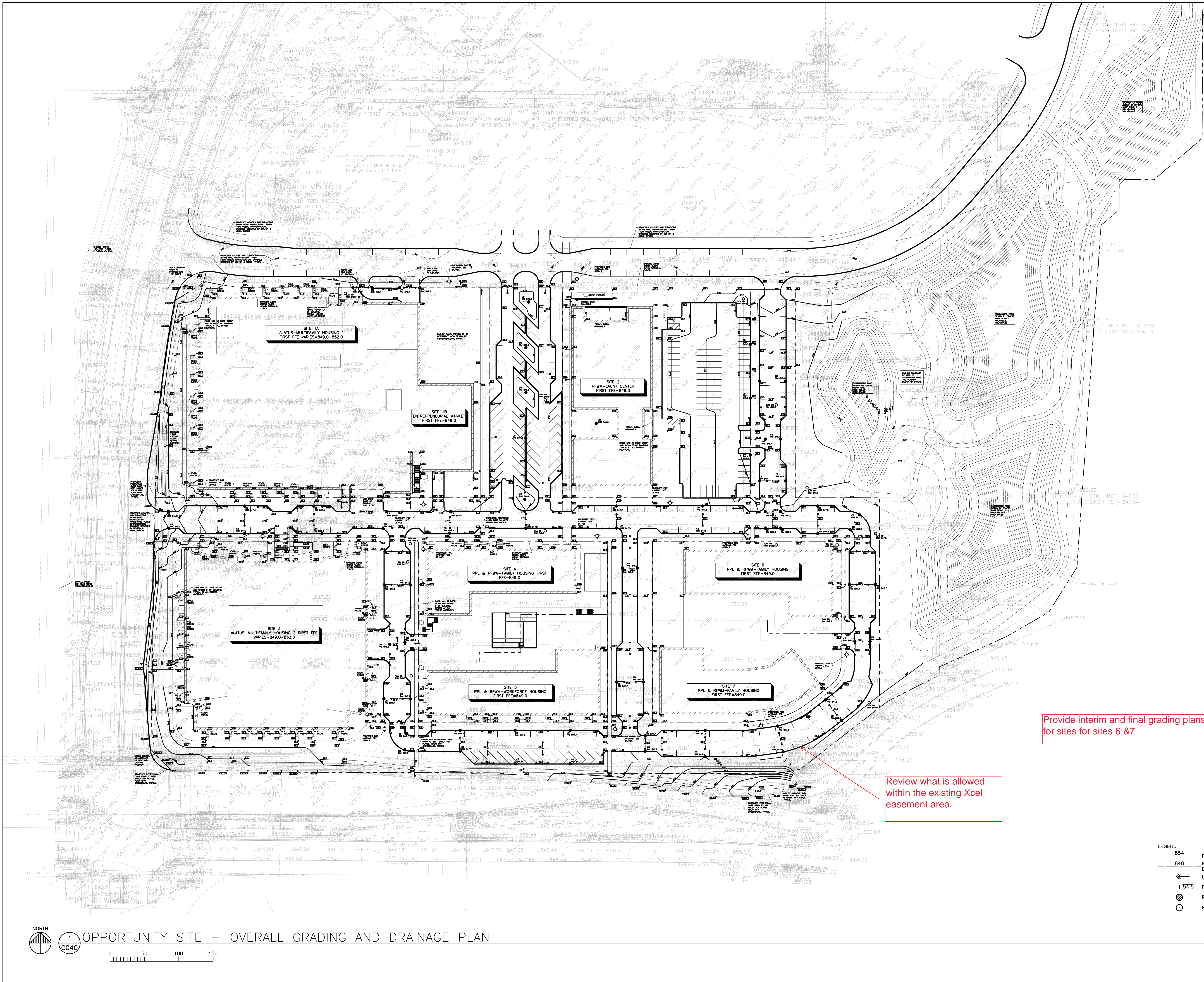


LEGEND	
	SILT FENCE
	EROSION CONTROL AT CB/MH
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED TREE PROTECTION
	PROPOSED CONCRETE WASHOUT
	PROPOSED CONSTRUCTION ENTRANCE



ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
2	06/14/2022	LAND USE APPLICATION
3	06/22/2022	REVISION

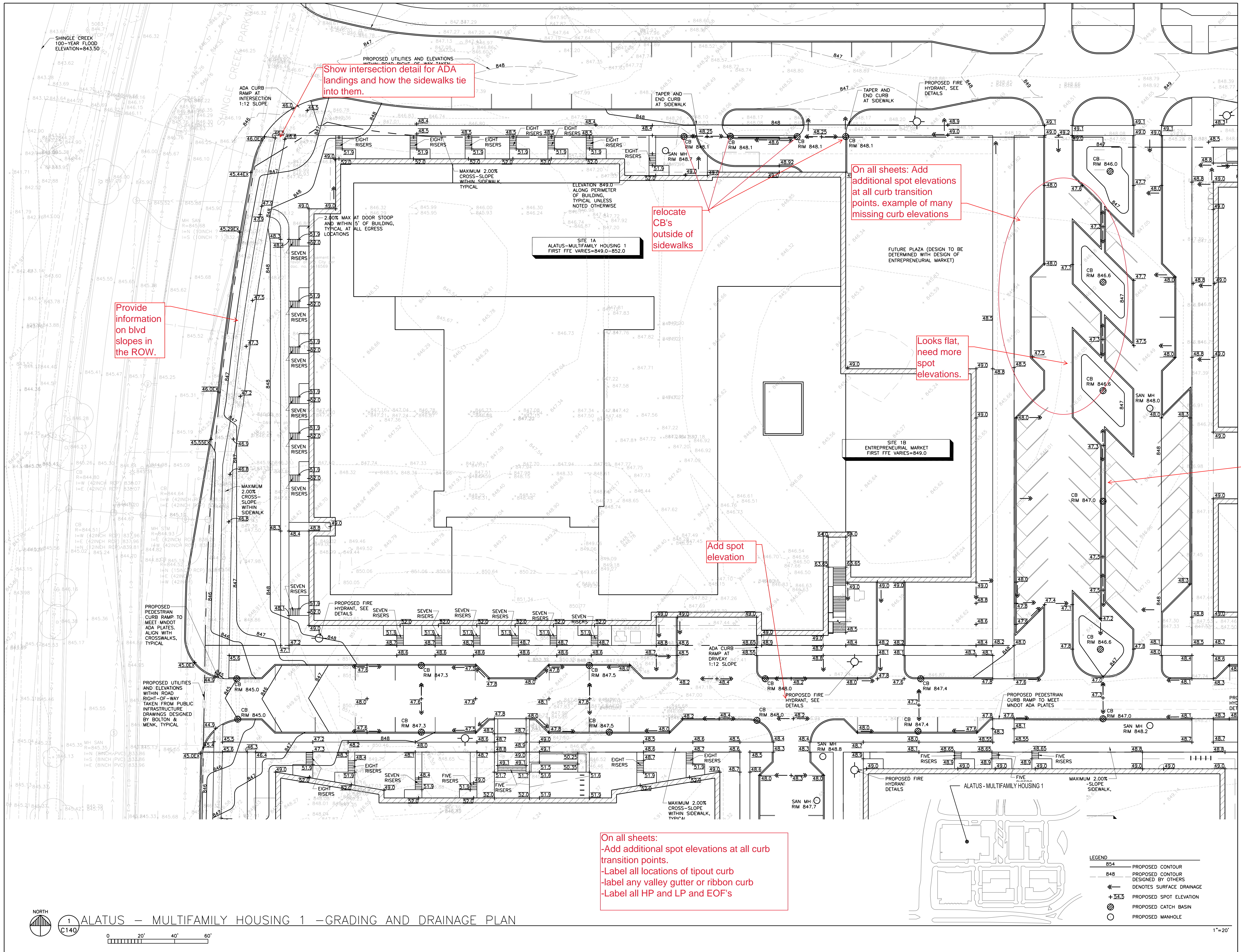
DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066



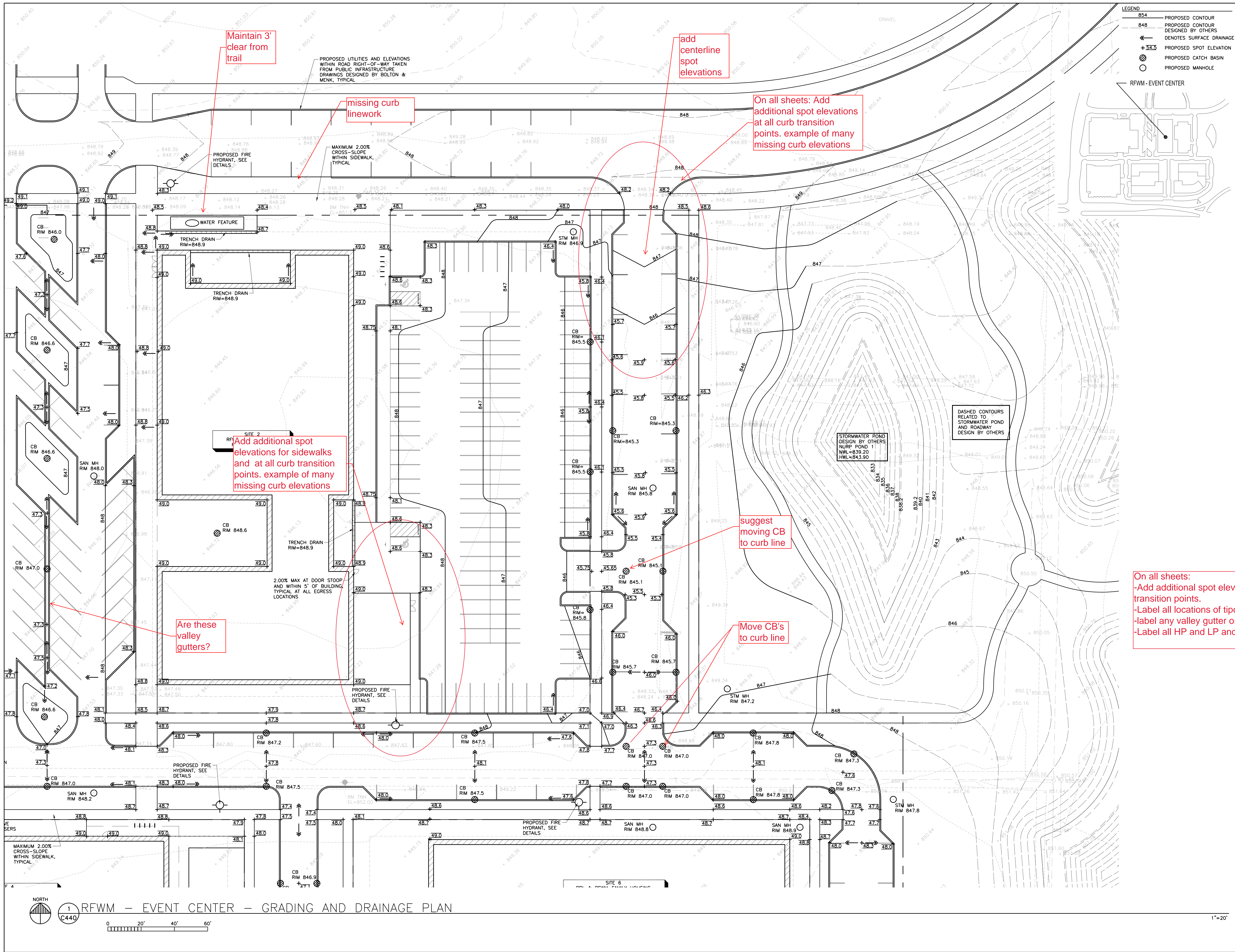


ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
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DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066







# BKV

GROUP

Architecture  
Interior Design  
Landscape Architecture  
Engineering

222 North Second Street  
Long & Kees Bldg  
Suite 101  
Minneapolis, MN  
55401  
612.339.3752

www.bkvgroup.com

CONSULTANTS

**PIERCE PINI & ASSOCIATES**  
9298 CENTRAL AVENUE, NE,  
SUITE 312  
BLAINE, MN 55434  
TEL 763.537.1311

PROJECT TITLE

**BROOKLYN CENTER - RFWM - EVENT CENTER**

ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
2	06/14/2022	LAND USE APPLICATION
3	06/22/2022	REVISION

CERTIFICATION

DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066

SHEET TITLE

**RFWM - EVENT CENTER - GRADING AND DRAINAGE PLAN**

SHEET NUMBER

**C440**

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ASSOCIATES  
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SUITE 312  
BLAINE, MN 55434  
TEL 763.537.1311

PROJECT TITLE

BROOKLYN  
CENTER -  
ALATUS -  
MULTIFAMILY  
HOUSING 2

ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
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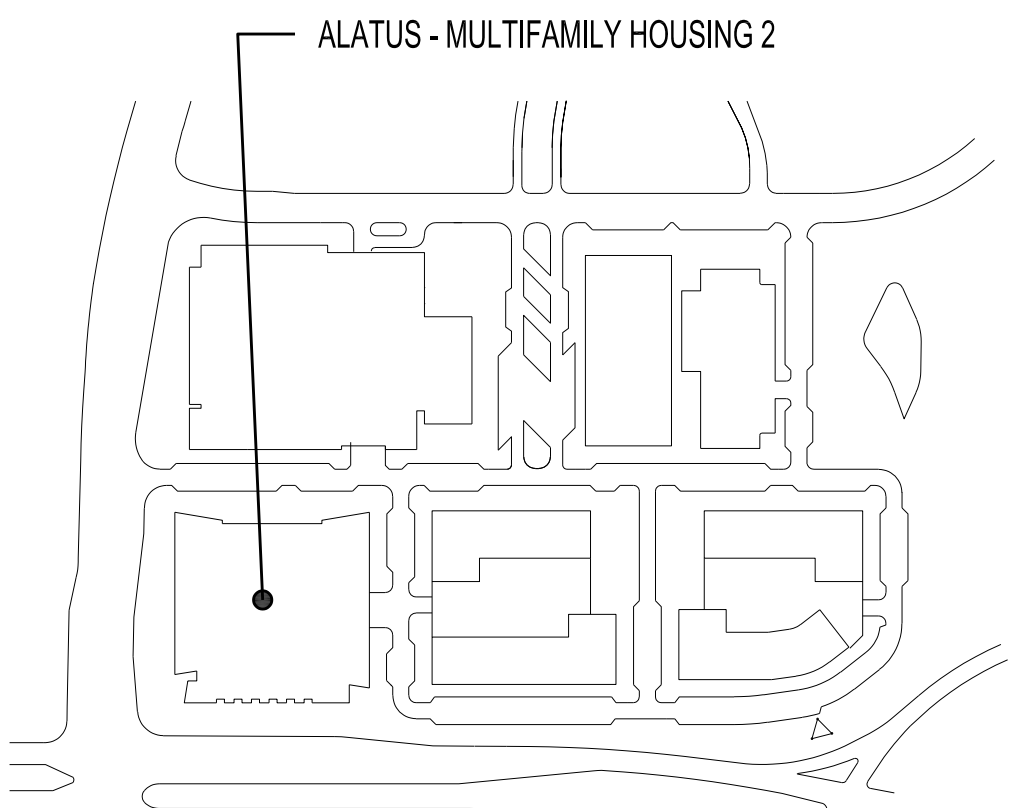
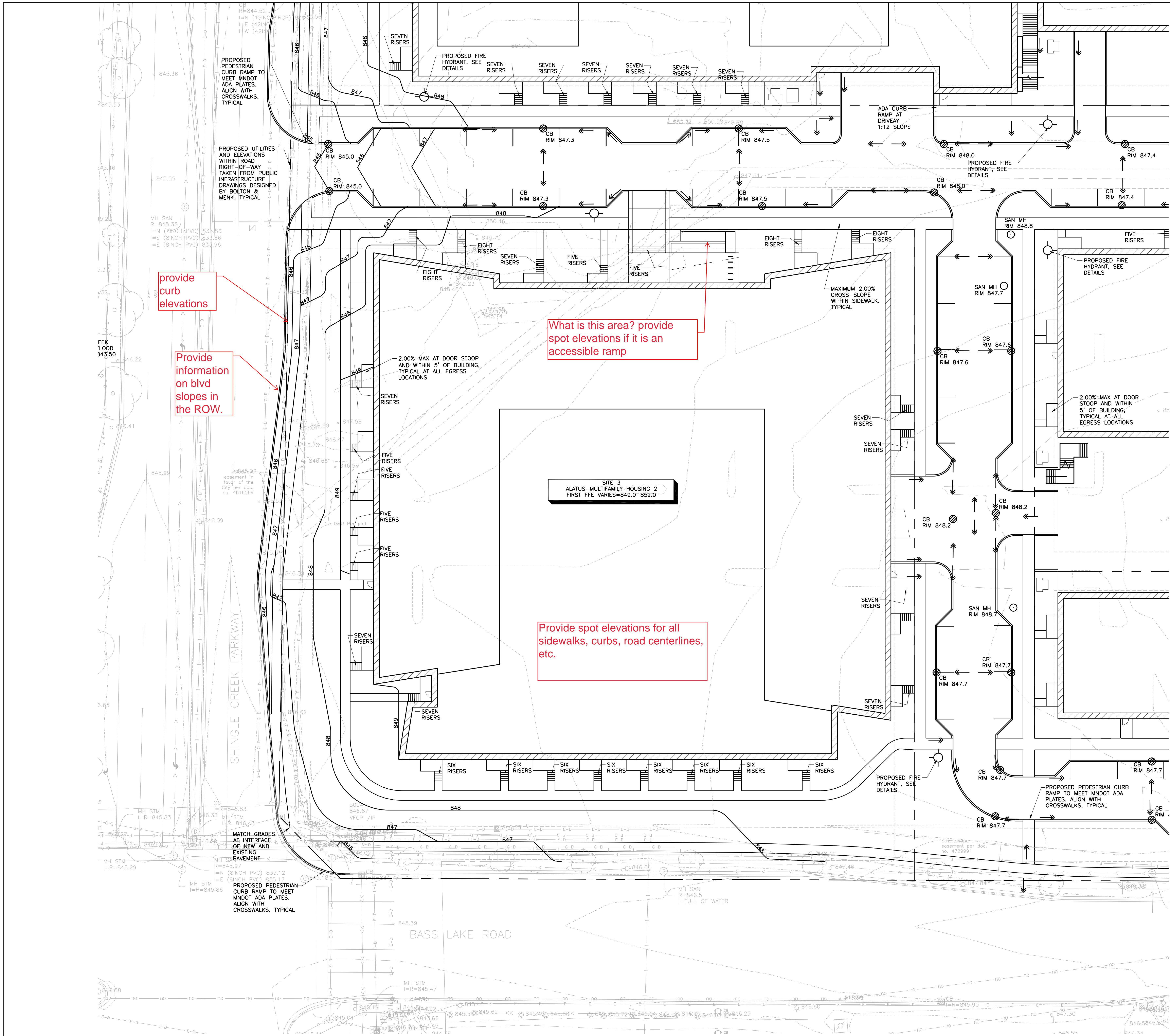
CERTIFICATION

DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066

SHEET TITLE  
ALATUS  
MULTIFAMILY  
HOUSING 2 -  
GRADING AND  
DRAINAGE PLAN

SHEET NUMBER

C240



- LEGEND
- 854 PROPOSED CONTOUR
  - 848 PROPOSED CONTOUR DESIGNED BY OTHERS
  - ← DENOTES SURFACE DRAINAGE
  - PROPOSED SPOT ELEVATION
  - PROPOSED CATCH BASIN
  - PROPOSED MANHOLE



ALATUS - MULTIFAMILY HOUSING 2 - GRADING AND DRAINAGE PLAN

C240

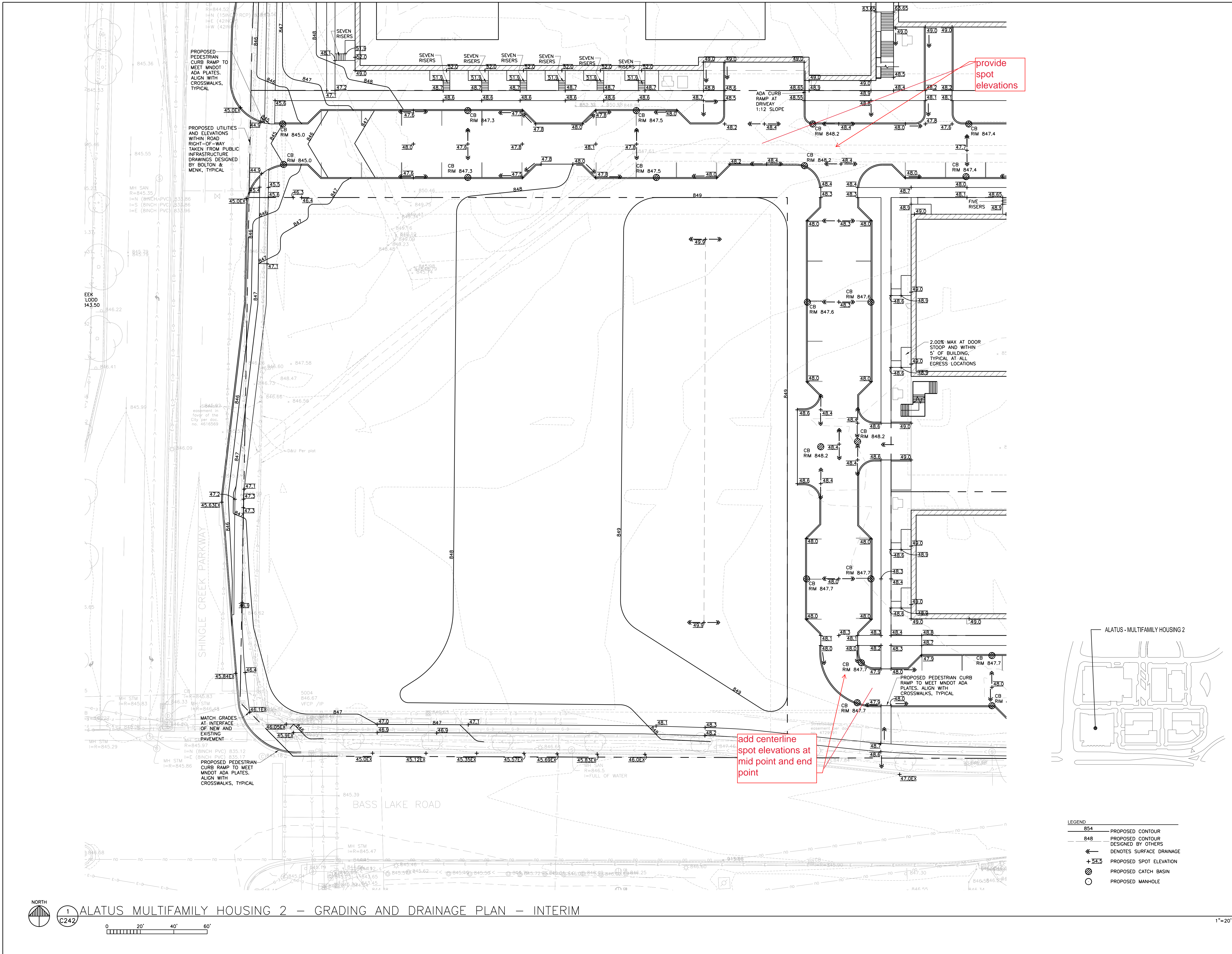
0 20' 40' 60'

1"=20'



ISSUE #	DATE	DESCRIPTION
1	05/10/2022	LAND USE APPLICATION
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3	06/22/2022	REVISION

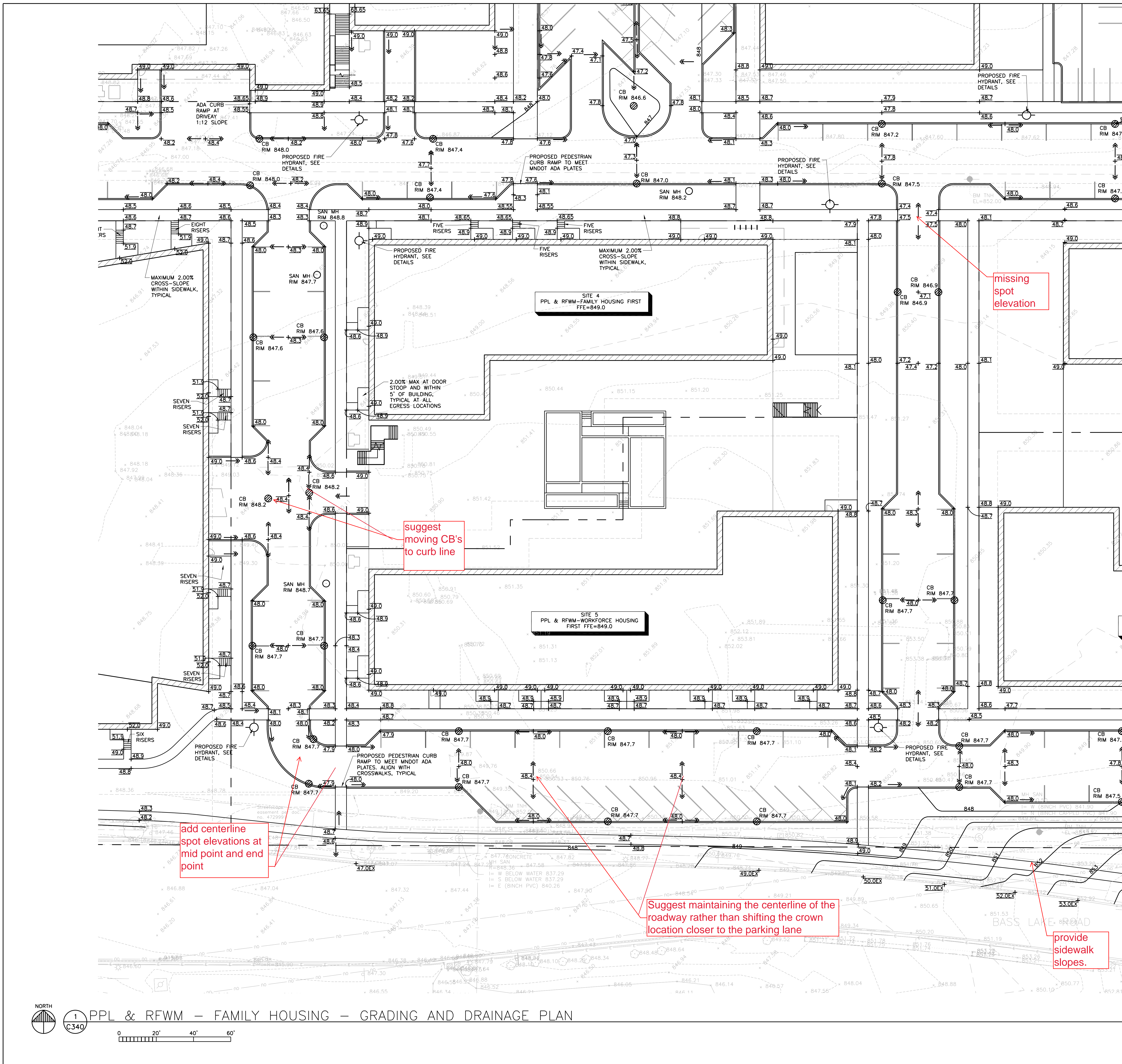
DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066





ISSUE #	DATE	DESCRIPTION
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DRAWN BY	JDR
CHECKED BY	RSP
COMMISSION NUMBER	21-066



Provide interim grading plan for sites for sites 6 & 7

missing spot elevation

suggest moving CB's to curb line

add centerline spot elevations at mid point and end point

Suggest maintaining the centerline of the roadway rather than shifting the crown location closer to the parking lane

provide sidewalk slopes.

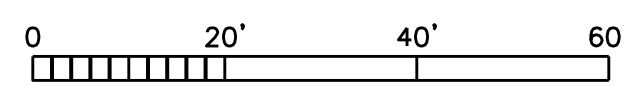
LEGEND

854	PROPOSED CONTOUR
848	PROPOSED CONTOUR DESIGNED BY OTHERS
←	DENOTES SURFACE DRAINAGE
+ 54.3	PROPOSED SPOT ELEVATION
⊗	PROPOSED CATCH BASIN
○	PROPOSED MANHOLE



C340

PPL & RFWM - FAMILY HOUSING - GRADING AND DRAINAGE PLAN



1"=20'