

# PROPOSED MULTI-FAMILY DEVELOPMENT FOR: SPARK DEVELOPMENT, LLC

## CLAYTON, WISCONSIN

### PROJECT INFORMATION

SITE INFORMATION:	
PROPERTY AREA:	612,353 S.F. (14.06 ACRES)
EXISTING ZONING:	A-2 GENERAL AGRICULTURE DISTRICT AND R-4 MULTI-FAMILY
PROPOSED ZONING:	R-4 MULTI-FAMILY
PROPOSED USE:	MULTI-FAMILY HOUSING
AREA OF SITE DISTURBANCE:	10.1 ACRES
SETBACKS:	
BUILDING:	FRONT(DIRECTION) = 40'
	SIDE(DIRECTION) = 15'
	REAR(DIRECTION) = 40'
BUFFERVARDS:	
SIDE (DIRECTION) = 20'	
REAR(DIRECTION) = 20'	
PROPOSED BUILDING HEIGHT:	30' (MAX. HEIGHT ALLOWED: 35')
PARKING REQUIRED:	(2 SPACES PER UNIT + 1 SPACE PER 6 UNITS) X 72 UNITS = 156 SPACES REQ.
PARKING PROVIDED:	216 STALLS, 72 COVERED, 144 SURFACE (5 H.C. ACCESSIBLE)
HANDICAP STALLS PROVIDED:	5 SURFACE STALLS

EXISTING SITE DATA			
	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	0.00	0	0.0%
PAVEMENT (ASP. & CONC.)	0.00	0	0.0%
TOTAL IMPERVIOUS	0.00	0	0.0%
LANDSCAPE/ OPEN SPACE	14.04	611,726	100.0%
PROJECT SITE	14.04	611,726	100.0%

PROPOSED SITE DATA			
	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	1.26	55,029	9.0%
PAVEMENT (ASP. & CONC.)	2.64	115,081	18.8%
TOTAL IMPERVIOUS	3.91	170,110	27.8%
LANDSCAPE/ OPEN SPACE	10.14	441,616	72.2%
PROJECT SITE	14.04	611,726	100.0%



TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN  
CALL DIGGERS HOTLINE  
1-800-242-8511  
TOLL FREE TELEFAX (414) 259-0947  
TDD (FOR THE HEARING IMPAIRED)  
1-800-542-2289  
WISCONSIN STATUTE 182.0175 (1974)  
REQUIRES MINIMUM OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

### LEGEND

NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS.

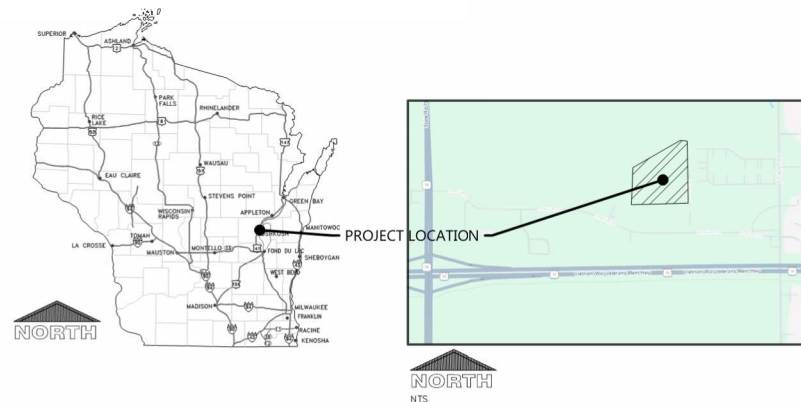
SYM.	IDENTIFICATION	SYM.	IDENTIFICATION
<b>SPOT ELEVATIONS</b>			
• (000.00)	PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)	• (000.00)TC	PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
• (000.00)EG	EXISTING GRADE SPOT ELEVATIONS	• (000.00)FL	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
• (000.00)BG	PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL, BG-FINISHED SURFACE GRADE AT BACK OF WALL)	• (000.00)TW	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
• (000.00)FG	PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL, FG-FINISHED SURFACE GRADE AT FRONT OF WALL)	• (000.00)BW	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
<b>EXISTING SITE SYMBOLS</b>			
—	EXISTING SIGN	⊗	EXISTING UTILITY POLE
♿	EXISTING HANDICAP PARKING STALL	⊗→	EXISTING UTILITY POLE WITH GUY WIRE
⊗	EXISTING WATER VALVE IN BOX	⊗→	EXISTING STREET LIGHT
⊗	EXISTING WATER VALVE IN MANHOLE	⊗	EXISTING TELEPHONE PEDESTAL
⊗	EXISTING WATER SERVICE VALVE	⊗	EXISTING ELECTRIC PEDESTAL
⊗	EXISTING WELL	⊗	EXISTING ELECTRIC BOX
⊗	EXISTING STORM CATCH BASIN	⊗	EXISTING FLOOD LIGHT
⊗	EXISTING STORM CURB INLET	⊗	EXISTING TELEPHONE MANHOLE
⊗	EXISTING SQUARE CATCH BASIN	⊗	EXISTING CABLE TV PEDESTAL
⊗	EXISTING LIGHT POLE	⊗	EXISTING GAS VALVE
■	1-1/4" REBAR SET WEIGHING 4.30 LB/FT.	⊗	EXISTING HEDGE
■	3/4" REBAR SET WEIGHING 1.50 LB/FT.	⊗	EXISTING WOODED AREA
□	1-1/4" REBAR FOUND	⊗	EXISTING MARSH AREA
○	3/4" REBAR FOUND	⊗	EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
○	2" IRON PIPE FOUND	⊗	EXISTING CONIFEROUS TREE
▲	1" IRON PIPE FOUND	⊗	EXISTING SHRUB
⊗	SECTION CORNER	⊗	EXISTING STUMP
<b>PROPOSED SITE SYMBOLS</b>			
—	PROPOSED SIGN	⊗	PROPOSED STORM FIELD INLET - ST FI
♿	PROPOSED HANDICAP PARKING STALL	⊗	PROPOSED LIGHT POLE
⊗	PROPOSED WATER VALVE IN BOX	⊗→	PROPOSED DRAINAGE FLOW
⊗	PROPOSED WATER VALVE IN MANHOLE	⊗→	PROPOSED APRON END SECTION
⊗	PROPOSED WATER SERVICE VALVE	⊗	SOIL BORING
⊗	PROPOSED WELL	⊗	CENTER LINE
⊗	PROPOSED STORM CATCH BASIN - ST CB	⊗	PROPOSED CLEANOUT
⊗	PROPOSED STORM CURB INLET - ST CI	⊗	PROPOSED DOWNSPOUT TO GRADE
		⊗	PROPOSED DOWNSPOUT TO RISER

EXISTING LINETYPES	
—	EXISTING CHAINLINK FENCE
—	EXISTING WOOD FENCE
—	EXISTING BARBED WIRE FENCE
—	EXISTING CURB AND GUTTER
—	EXISTING GUARD RAIL
—	EXISTING GROUND CONTOUR
—	EXISTING STORM SEWER AND MANHOLE
—	EXISTING SANITARY SEWER AND MANHOLE
—	EXISTING WATER LINE AND HYDRANT
—	INTERIOR PROPERTY LINE
—	EXISTING POLISH SEWER AND MANHOLE
—	EXISTING PROCESS SEWER AND MANHOLE
—	EXISTING CLEAR WATER LINE
—	EXISTING UNDERGROUND FIBER OPTIC LINE
—	EXISTING UNDERGROUND ELECTRIC CABLE
—	EXISTING UNDERGROUND TELEPHONE CABLE
—	EXISTING UNDERGROUND GAS LINE
—	EXISTING OVERHEAD UTILITY LINE
—	RAILROAD TRACKS
—	RIGHT-OF-WAY LINE
PROPOSED LINETYPES	
—	PROPOSED CHAINLINK FENCE
—	PROPOSED WOOD FENCE
—	PROPOSED BARBED WIRE FENCE
—	PROPOSED CURB AND GUTTER
—	PROPOSED GUARD RAIL
—	PROPOSED GROUND CONTOUR
—	PROPOSED STORM SEWER AND MANHOLE - ST MH
—	PROPOSED SANITARY SEWER AND MANHOLE - SAN MH
—	PROPOSED WATER LINE AND HYDRANT
—	PROPOSED PROPERTY LINE
—	PROPOSED POLISH SEWER AND MANHOLE
—	PROPOSED PROCESS SEWER AND MANHOLE
—	PROPOSED CLEAR WATER LINE
—	PROPOSED UNDERGROUND FIBER OPTIC LINE
—	PROPOSED UNDERGROUND ELECTRIC CABLE
—	PROPOSED UNDERGROUND TELEPHONE CABLE
—	PROPOSED UNDERGROUND GAS LINE
—	PROPOSED OVERHEAD UTILITY LINE
—	MATCHLINE
—	GRADING/SEEDING LIMITS

### PROJECT CONTACTS

<b>OWNER INFORMATION:</b> SPARK DEV LLC DEREK LIEBHAUSER 2065 AMERICAN DR., SUITE A NEENAH, WI 54956 Phone: (920) 428-9451 Email: derek@sparkdevco.com	<b>CIVIL:</b> GRANT DUCHAC Phone: (920)322-1681 E-mail: grant.d@excelengineer.com	<b>CITY PLANNER:</b> KELLY WISNEFSKE Phone: (920)836-2007 E-mail: administrator@CLAYTONWINNEBAGO.WI.GOV	<b>CITY FIRE CHIEF:</b> SCOTT RIECKMANN Phone: (920)836-2170 E-mail: firechief@townofclayton.net	<b>CITY BUILDING INSPECTOR:</b> TOM SPIEROWSKI Phone: (920)836-2007 E-mail: buildinginspector@townofclayton.net	<b>CITY DIRECTOR OF PUBLIC WORKS:</b> RICK CHRISTIANSON, JR. Phone: (920)450-8414 E-mail: dpw1@townofclayton.net
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### LOCATION MAP



### PROJECT NOTES

- GENERAL PROJECT NOTES**
- ALL DRIVEWAYS AND CURB CUTS TO BE CONSTRUCTED ACCORDING TO LOCAL ORDINANCES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
  - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS.

**CONSTRUCTION STAKING SERVICES**  
CONSTRUCTION STAKING SHALL BE COMPLETED BY EXCEL ENGINEERING AS REQUESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO CONTACT RYAN WILGREEN AT 920-926-9800 OR RYAN.W@EXCELENGINEER.COM TO GET STAKING PRICE TO INCLUDE IN BID TO OWNER. PAYMENT OF STAKING COSTS ABOVE AND BEYOND THE BASE PRICE DUE TO RESTAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR, NOT THE OWNER. CAD DRAWING FILES AND SURVEY CONTROL WILL NOT BE PROVIDED FOR STAKING PURPOSES.

### SHEET INDEX

SHEETS BELOW INTENDED TO BE PRINTED IN COLOR. REFER TO DIGITAL FORMAT DRAWINGS IF PRINTED GRAYSCALE TO ENSURE SCOPE CLARITY.

NUMBER	SHEET NAME / DESCRIPTION
C0.1	COVER SHEET
C0.2	SPECIFICATIONS
C1.0	EXISTING SITE AND DEMOLITION PLAN
C1.1	SITE PLAN
C1.1A	ENHANCED SITE PLAN
C1.2	GRADING AND EROSION CONTROL PLAN
C1.2A	GRADING PLAN DETAIL
C1.3	UTILITY PLAN
C1.4	LANDSCAPE AND RESTORATION PLAN
C1.4A	LANDSCAPE AND RESTORATION EXHIBITS
C2.0	DETAILS
C2.1	DETAILS
	STORM SEWER BASIN MAP

PROPOSED MULTI-FAMILY DEVELOPMENT FOR:  
**SPARK DEVELOPMENT, LLC**  
EAGLE HEIGHTS DRIVE • TOWN OF CLAYTON, WI 54942



**PRELIMINARY DATES**  
SEPT. 8, 2025

**NOT FOR CONSTRUCTION**

**JOB NUMBER**  
250209100

**SHEET NUMBER**  
**C0.1**

# CIVIL SPECIFICATIONS



Now a Better Plan

100 Camelot Drive  
Fond du Lac, WI 54935  
920-926-9800  
excelengineer.com

## PROJECT INFORMATION

PROPOSED MULTI-FAMILY DEVELOPMENT FOR:  
**SPARK DEVELOPMENT, LLC**  
EAGLE HEIGHTS DRIVE • TOWN OF CLAYTON, WI 54942

PROFESSIONAL SEAL

PRELIMINARY DATES  
SEPT. 8, 2025

JOB NUMBER  
250209100

SHEET NUMBER

C0.2

NOT FOR CONSTRUCTION

## DIVISION 33 UTILITIES

### 33 10 00 SITE UTILITIES

- A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE AND CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATION AND REPAIRS.
- B. CONTRACTOR TO FIELD VERIFY ALL EXISTING SANITARY AND STORM LATERALS THAT ARE SCHEDULED TO BE RE-USED AND/OR CONNECTED TO ON SITE. THE TELEVISION SHALL BE COMPLETED TO ENSURE THE EXISTING LATERALS ARE FREE OF OBSTRUCTIONS AND IN SOUND STRUCTURAL CONDITION. TELEVISION OF THESE LATERALS SHOULD BE COMPLETED AT BEGINNING OF CONSTRUCTION AND DESIGN ENGINEER SHALL BE NOTIFIED OF ANY PIPE OBSTRUCTIONS AND/OR STRUCTURAL DEFICIENCIES IMMEDIATELY AFTER COMPLETION OF FIELD TELEVISION.
- C. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A. ALLOWABLE PIPE MATERIAL SCHEDULE. ALL SANITARY PIPE BELOW PROPOSED & FUTURE BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A. ALLOWABLE PIPE MATERIAL. INSULATION SHALL BE PROVIDED PER STATE PLUMBING CODES AS NECESSARY BASED ON PROPOSED DEPTH PER PLANS.
- D. SANITARY AND PROCESS MANHOLES SHALL BE 48" PRECAST AND CONFORM TO THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN. CURRENT EDITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PROCESS MANHOLES SHALL BE LINED W/ GSE STUDLINER LINING. SANITARY & PROCESS MANHOLE FRAME AND DEPT ARE NEEMAN R-1550 A OR EQUAL. RIM ELEVATION TO BE SET AT FINISHED GRADE AND DEVELOPED AREAS AND 12" ABOVE FINISHED GRADE IN UNDEVELOPED AREAS EXCEPT AS OTHERWISE DIRECTED BY THE ENGINEER.
- E. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY & STORM SERVICES AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL CONSIST OF A COMBINATION WYE FITTING IN LINE WITH THE SANITARY/STORM SERVICE WITH THE CLEANOUT LEG OF THE COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 4" (OR 6") VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC BREST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6" BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN Z-1474-NV HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE. IN PAVED SURFACES, THE FROST SLEEVE SHALL TERMINATE IN A CONCRETE PAD AT LEAST 6" THICK AND EXTENDING AT LEAST 9" FROM THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURER'S REQUIREMENTS.
- F. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A. ALLOWABLE PIPE MATERIAL SCHEDULE. #6 MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
- G. ALL PROPOSED STORM PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A. ALLOWABLE PIPE MATERIAL SCHEDULE. ALL PROPOSED STORM PIPE BELOW BUILDINGS SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A. ALLOWABLE PIPE MATERIAL SCHEDULE. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED. PIPE SHALL BE PLACED MIN. 12" HORIZONTALLY FROM FOUNDATION WALLS.
- H. SANITARY, STORM, AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
- I. SITE UTILITY CONSTRUCTION SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN STORM SEWER FOR INTERNALLY DRAINED BUILDINGS TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN DOWNSPOUT LEADS TO BUILDING FOUNDATION AND UP 6" ABOVE SURFACE GRADE FOR CONNECTION TO DOWNSPOUT FOR ALL DOWNSPOUT TO RISER (DSR) CONNECTIONS. DOWNSPOUTS TO GRADE (DSG) SHALL BE PROVIDED WITH SPLASH BLOCKS AT THE DISCHARGE LOCATION. ALL DOWNSPOUT LOCATIONS SHOULD BE VERIFIED WITH ARCHITECTURAL PLANS AND DOWNSPOUT CONTRACTOR/CGC PRIOR TO INSTALLATION OF DOWNSPOUT LEADS. DOWNSPOUT LEADS SHALL NOT UNDERMINE BUILDING FOUNDATIONS. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CLIMB AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION.
- J. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
- K. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER, SANITARY, AND STORM SEWER SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL IF REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER, SANITARY AND STORM SEWER.
- L. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.

### 33 30 00 LANDSCAPING AND SITE STABILIZATION

- A. TOPSOIL. CONTRACTOR TO PROVIDE A MINIMUM OF 5" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS. OTHER THAN A LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL SEEDS WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0-60 FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING, LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUSTAINABILITY OF TOPSOIL AND TO DETERMINE THE NECESSARY NUTRIENT AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 6. CONTAIN A MINIMUM OF 3 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1/2 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED. TOPSOIL INSTALLATION: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. GRADE TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
- B. SEEDED LAWNS:
  - PERMANENT LAWN AREAS SHALL BE SEEDD WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS/1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS/1,000 S.F.), 15% FINE FESCUE (0.4-0.6 LBS/1,000 S.F.), STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDD AS PERMANENT LAWN, NO BARE TOPSOIL SHALL BE LEFT UNSEED. FOLLOW PROCEDURES FOUND IN WORK TECHNICAL STANDARDS 1058 & 1059.
  - ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES SHALL BE SEEDD WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0-60 LBS./1,000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS./1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS./1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WORK TECHNICAL STANDARDS 1058 & 1059.
  - ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 19 LBS./1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS./1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS./1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WORK TECHNICAL STANDARDS 1058 & 1059.
- C. SEEDED LAWN MAINTENANCE. CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, THE LAWN SHALL BE MAINTAINED WITH THE FOLLOWING MIXTURE: FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5%. CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
- D. EROSION MATTING:
  - CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER OUTSIDE OF STORMWATER CONVEYANCE AREAS. EROSION MATTING SHALL BE PROVIDED IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
  - CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED BELOW MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
- E. RIP RAP: ALL RIP RAP ASSOCIATED WITH STORMWATER MANAGEMENT AND STORMWATER CONVEYANCE, AS DELINEATED ON THE PLANS, SHALL BE CONSTRUCTED WITH THE TOP OF RIP RAP MATCHING THE PROPOSED ADJACENT GRADE ELEVATIONS. PLACEMENT OF RIP RAP ABOVE THE PROPOSED ADJACENT GRADE ELEVATIONS IS NOT ACCEPTABLE. ALL RIP RAP SHALL BE PLACED ON TYPE HR FILTER FABRIC PER SECTION 645 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURAL CONSTRUCTION.
- F. TREES AND SHRUBS: FURNISH NURSERY-GROWN TREES AND SHRUBS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, AND HEALTHY LOOKING STOCK. STOCK SHOULD ALSO BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. SEE THE LANDSCAPE PLAN FOR SPECIFIC SPECIES, TYPE, AND LOCATION.
- G. TREE AND SHRUB INSTALLATION: EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL. EXCAVATE PIT APPROXIMATELY THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER. SET TREES AND SHRUBS PLUMB AND IN CENTER OF PIT WITH TOP OF BALL 1" ABOVE ADJACENT FINISHED GRADES. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS AND TAMPA TO SETTLE MIX. WATER ALL PLANTS THOROUGHLY. PROVIDE TEMPORARY STAKING FOR TREES AS REQUIRED.
- H. TREE AND SHRUB MAINTENANCE/WARRANTY: CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. MAINTENANCE TO INCLUDE REGULAR WATERING AS REQUIRED FOR SUCCESSFUL PLANT ESTABLISHMENT. CONTRACTOR TO PROVIDE 1 YEAR WARRANTY ON ALL TREES, SHRUBS, AND PERENNIALS.
- I. ORGANIC MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF SHREDDED HARDWOOD MULCH AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
- J. MINERAL MULCH: PROVIDE 3" MINIMUM THICK BLANKET OF 1.5" MINIMUM TO 2.5" MAXIMUM CRUSHED DECORATIVE STONE AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED BARRIER FABRIC. COLOR BY OWNER.
- K. PLASTIC EDGING: INSTALL VALLEY VIEW INDUSTRIES BLACK DIAMOND LAWN EDGING TO SEPARATE ALL PLANTING BEDS FROM LAWN AREAS. EDGING TO BE 5.5" TALL WITH METAL STAKES INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- L. LANDSCAPE AND LAWN IRRIGATION: CONTRACTOR TO PROVIDE DESIGN AND INSTALLATION OF IRRIGATION SYSTEM PIPING, VALVES, VALVE BOXES, SPRINKLERS, EMITTERS, DRIP TUBES, AND CONTROLS IN COMBINATIONS THAT BEST SUIT THE LANDSCAPE PLAN LAYOUT. ALL LAWN AND LANDSCAPING AREAS SHALL BE PROVIDED WITH IRRIGATION AS DELINEATED ON THE PLAN. THE DESIGN SHOULD MINIMIZE THE AMOUNT OF WATER THAT EXTENDS BEYOND THE PROPERTY AND ON PAVED AREAS. THE SYSTEM SHALL BE DESIGNED FOR FULLY AUTOMATIC OPERATION AND PROVIDE ALL NECESSARY CONTROLS, VALVES, AND WIRING TO OPERATE THE SYSTEM. THE CONTROL UNIT SHALL BE INSTALLED IN A MECHANICAL ROOM OR AT A LOCATION AGREED TO WITH THE OWNER. THE CONTROL UNIT SHOULD BE PROVIDED WITH A LOCKING COVER.

## DIVISION 32 EXTERIOR IMPROVEMENTS

### 32 10 00 AGGREGATE BASE & ASPHALT PAVEMENT

- A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL OBTAIN AND REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW.
 

STANDARD ASPHALT PAVING SECTION	HEAVY ASPHALT PAVING SECTION
1-1/2" SURFACE COURSE (5 LT 58-285)	1-1/2" SURFACE COURSE (5 LT 58-285)
WSDOT 455-2.5 TACK COAT (STAGED PAVING)	WSDOT 455-2.5 TACK COAT (STAGED PAVING)
2" BINDER COURSE (4 LT 58-285)	2-1/2" BINDER COURSE (4 LT 58-285)
10" OF 1-1/4" CRUSHED AGGREGATE	12" OF 1-1/4" CRUSHED AGGREGATE
- B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
- C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED PER MOST STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
- D. CONTRACTOR TO PROVIDE 4" WIDE YELLOW OR WHITE PAINTED STRIPES FOR PARKING STALLS, TRAFFIC LANES, AND NO PARKING AREAS. YELLOW OR WHITE PAINT MARKINGS SHALL ALSO BE PROVIDED FOR H.C. ACCESSIBLE SYMBOLS, TRAFFIC ARROWS, AND TRAFFIC MESSAGES.

### 32 20 00 CONCRETE AND AGGREGATE BASE

- A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
  - ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
  - DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 308R-08 & ACI 318-08.
  - D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
    1. SIDEWALK CONCRETE - 4" OR CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONTRACTOR TO PROVIDE A HEALTHY, UNIFORM, CLOSE STANDING, YELLOW OR WHITE PAINT MARKING INDICATED ON THE PLANS.
    2. DUMPS/TER PAD/APRON CONCRETE - 8" OF CONCRETE OVER 6" OF AGGREGATE BASE.
      - a. CONCRETE SHALL BE STEEL REINFORCED WITH THE FOLLOWING AND PLACED IN THE UPPER 1/3 TO 1/2 OF THE SLAB.
        - 1) THE BARS AT ALL CONSTRUCTION JOINTS OF THE CONCRETE. TIE BARS SHALL BE #4 REBAR 30" LONG PLACED AT 30" O.C.
      - b. DUMPS/TER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
        - 1) CONTRACTOR SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
        - 2) TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12" O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTEEL 9" SPEED DOWEL TUBES SHALL BE USED.
- E. DESIGN MDS SHALL BE IN ACCORDANCE WITH ASTM C94
  1. STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
  2. MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
  3. SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK.
  4. SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER.
  5. SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
  6. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
  7. MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
  8. REINFORCING EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIREING PAD. PADS SHALL HAVE FIBERESH+ 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6 W/4 X W/4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. CONCRETE SHALL BE PROVIDED ON A 6" 3/4" CRUSHED AGGREGATE BASE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
  9. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FINISHES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
  10. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN.). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
  11. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE FOUNDATION. REINFORCEMENT SHALL BE NOT LESS THAN 1.5" FOR UP TO #5 BARS AND 2" FOR #6 TO #10 BARS IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 48 DIAMETERS FOR UP TO #6 BARS, 62 DIAMETERS FOR #7 TO #9 BARS, 68 DIAMETERS FOR #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRS AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GRASS, SOIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 1064. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
  12. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301. CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD. BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
  13. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREENING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
  14. LIMIT MAXIMUM WATER/CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DRAINING SALTS TO 0.45.
  15. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH ON SITE, DESIGN COMpressive STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.

### 31 30 00 EROSION CONTROL/STORMWATER MANAGEMENT

- A. THE EXCEL ENGINEERING DESIGN ENGINEER SHALL PREPARE A SITE SPECIFIC EROSION CONTROL AND A STORMWATER MANAGEMENT PLAN PURSUANT TO NR 216.46 AND NR 216.47. THE DESIGN ENGINEER SHALL ALSO FILE A CONSTRUCTION NOTICE OF INTENT WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES PRIOR TO THE BEGINNING OF CONSTRUCTION. THE DESIGN PROGRAM PURSUANT TO NR 216.415 TO OBTAIN COVERAGE UNDER THE GENERAL WPDES STORM WATER PERMIT.
- B. THE CONTRACTOR SHALL KEEP THE NOTICE OF INTENT PERMIT, APPROVED EROSION CONTROL AND STORMWATER MANAGEMENT PLANS, AND PLAN AMENDMENTS ON THE CONSTRUCTION SITE AT ALL TIMES PURSUANT TO NR 216.455 UNTIL PERMIT COVERAGE IS TERMINATED.
- C. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS. THE CONTRACTOR SHALL SUBMIT REPORTS FOR MEETING THE MONITORING, MAINTENANCE, AND REPORTING REQUIREMENTS OF NR 216.648. INSPECTIONS OF IMPLEMENTED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. A RAIN EVENT MAY BE CONSIDERED TO BE THE TOTAL AMOUNT OF PRECIPITATION RECORDED IN ANY CONTINUOUS 24-HOUR PERIOD. THE CONTRACTOR SHALL REPAIR OR REPLACE EROSION AND SEDIMENT CONTROL AS NECESSARY WITHIN 24 HOURS OF AN INSPECTION OR AFTER A DEPARTMENT NOTIFICATION WHERE REPAIR OR REPLACEMENT IS REQUESTED.
- D. THE CONTRACTOR SHALL MAINTAIN, AT THE CONSTRUCTION SITE OR AVAILABLE VIA AN INTERNET WEBSITE, WEEKLY WRITTEN REPORTS OF ALL INSPECTIONS CONDUCTED. WISCONSIN DNR CONSTRUCTION SITE INSPECTION REPORT FORM 3400-187 SHALL BE USED. WEEKLY INSPECTION REPORTS SHALL INCLUDE ALL OF THE FOLLOWING:
  1. THE DATE, TIME, AND LOCATION OF THE CONSTRUCTION SITE INSPECTION.
  2. THE NAME OF THE INDIVIDUAL WHO PERFORMED THE INSPECTION.
  3. AN ASSESSMENT OF THE CONDITION OF THE EROSION AND SEDIMENT CONTROLS.
  4. A DESCRIPTION OF ANY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE IMPLEMENTATION AND MAINTENANCE PERFORMED.
  5. THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES THAT ARE IN PLACE AT THE CONSTRUCTION SITE.
  6. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY FOLLOW THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151. THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDANT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
    1. SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1058 (CURRENT EDITION).
    2. DITCH CHECKS SHALL BE PROVIDED TO CONTROL THE VELOCITY OF WATER FLOWING IN DITCH BOTTOMS. PLACE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1062 (CURRENT EDITION).
    3. STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3 INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WSDOT TYPE P GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (12" MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OR SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
    4. STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM EXISTING CATCH BASINS AND DRAINS. TYPE B OR PROTECTION SHALL BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
    5. DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
    6. THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
    7. CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM DRAINS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
    8. TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
    9. IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
    10. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WI DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
    11. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
    12. ONCE THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED AND TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES HAVE BEEN REMOVED, THE CONTRACTOR SHALL FILE A CONSTRUCTION NOTICE OF TERMINATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES IN ACCORDANCE WITH NR 216.655.
  13. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL GIVE THE OWNER COPIES OF THE EROSION CONTROL AND STORM WATER MANAGEMENT PLANS, AMENDMENTS TO PLANS, SUPPORTING PLAN DATA, AND CONSTRUCTION SITE EROSION CONTROL INSPECTION REPORTS. THE OWNER SHALL RETAIN THESE FOR A PERIOD OF 3 YEARS FROM THE DATE OF TERMINATING COVERAGE UNDER WPDES GENERAL PERMIT.
  14. ALL POST CONSTRUCTION STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES SHALL BE CONSTRUCTED BEFORE THE SITE HAS UNDERGONE FINAL STABILIZATION.

## DIVISION 31 EARTH WORK

### 31 10 00 SITE CLEARING (DEMOLITION)

- A. CONTRACTOR SHALL CALL DIGGERS HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- B. CONTRACTOR TO FIELD TELEVIEW ALL EXISTING SANITARY AND STORM LATERALS THAT ARE SCHEDULED TO BE RE-USED AND/OR CONNECTED TO ON SITE AT TIME OF DEMOLITION. THE TELEVISION SHALL BE COMPLETED TO ENSURE THE EXISTING LATERALS ARE FREE OF OBSTRUCTIONS AND IN SOUND STRUCTURAL CONDITION. TELEVISION OF THESE LATERALS SHOULD BE COMPLETED AT BEGINNING OF CONSTRUCTION AND DESIGN ENGINEER SHALL BE NOTIFIED OF ANY PIPE OBSTRUCTIONS AND/OR STRUCTURAL DEFICIENCIES IMMEDIATELY AFTER COMPLETION OF FIELD TELEVISION.
- C. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
- D. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
- E. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

### 31 20 00 EARTH MOVING

- A. CONTRACTOR SHALL CALL DIGGERS HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
- C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT STEEP FILL AREAS SHALL BE REMOVED. PROF-ROLL SURFACES BEFORE PLACING FILL WITH HEAVY PNEUMATIC TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
- D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBSEQUENT FILL OR EACH SUBSEQUENT LAYER. EXCESS MATERIAL SHALL BE REMOVED AS REFERENCED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE OR SCARIFY AND AIR DRY, OR OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
- E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPELATED TAMPERS.
- F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698. STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
  1. UNDER FOUNDATIONS: -SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 98 PERCENT.
  2. UNDER INTERIOR SLAB ON GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH 5% TO 12% FINES. PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
  3. UNDER INTERIOR SLAB ON GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE - PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES. PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
  4. UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
  5. UNDER SIDEWALKS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
  6. UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 85 PERCENT.
- G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY PSI.
- H. WHEN THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
  1. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED, RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
  2. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

## SHOP DRAWING SUBMIT

NOTE: SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGERS HOLES MARKINGS FOR TIE-IN TO EXISTING UTILITIES HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF EXISTING UTILITIES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THIS PLAN IS IN NO WAY A SUBSTITUTE FOR UTILITY LOCATING AT THE TIME OF EXCAVATION.

NOTE: THE FIELD WORK WAS COMPLETED ON JULY 25, 2025.

**PROJECT INFORMATION**

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**SPARK DEVELOPMENT, LLC**  
EAGLE HEIGHTS DRIVE • TOWN OF CLAYTON, WI 54942

PROFESSIONAL SEAL

**PRELIMINARY DATES**  
SEPT. 8, 2025

**NOT FOR CONSTRUCTION**




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250209100

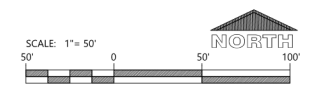
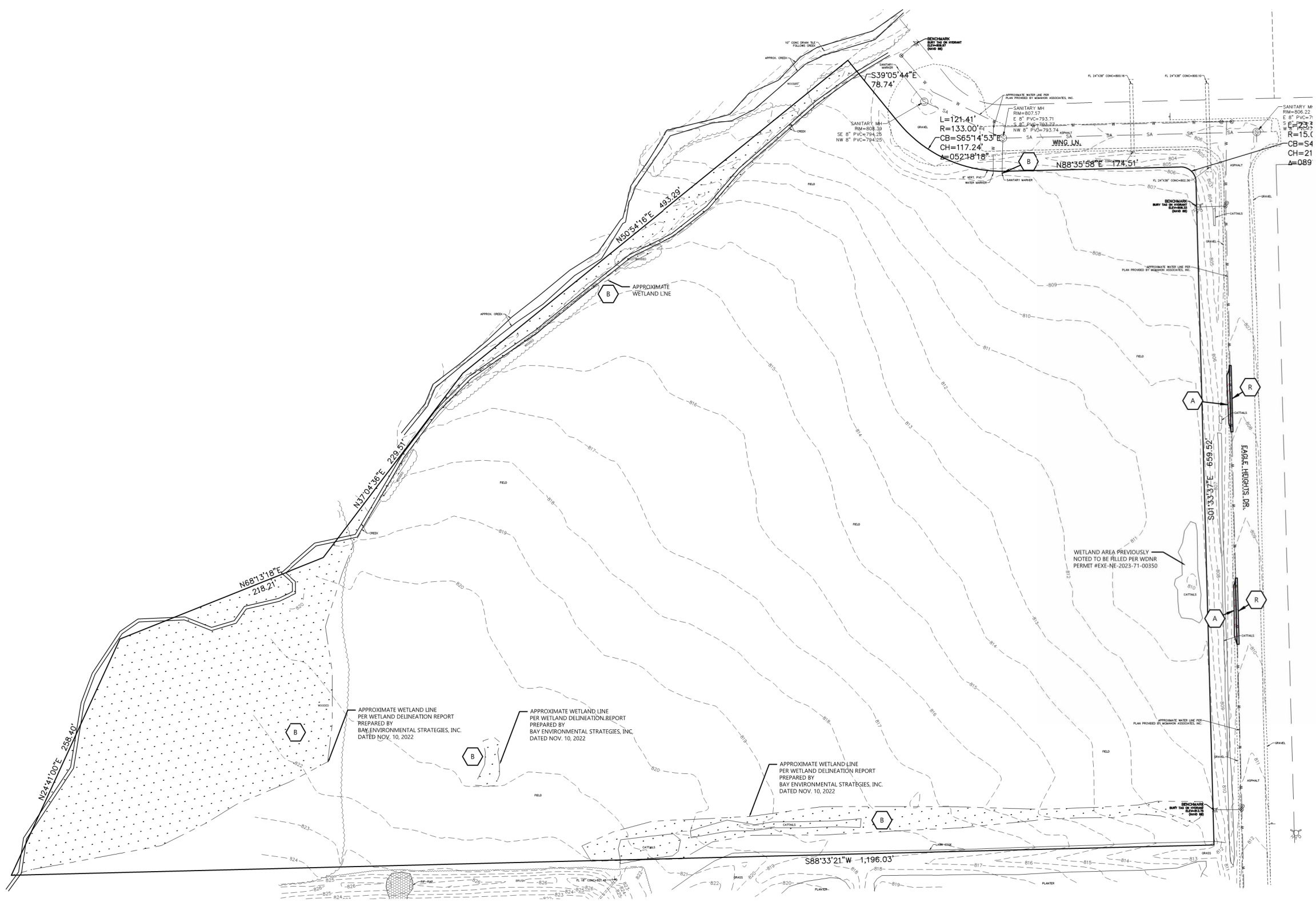
**SHEET NUMBER**  
**C1.0**

**LEGEND:**

	REMOVE PAVEMENT & BASE
	REMOVE PAVEMENT, PROTECT BASE
	REMOVE FEATURES

**KEYNOTES**

	REMOVE
	PROTECT
	REMOVE 2" OF ASPHALT





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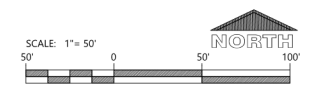
JOB NUMBER

250209100

SHEET NUMBER

**C1.1**

HATCH	PAVEMENT SECTION
	STANDARD ASPHALT
	DUMPSTER PAD / APRON CONCRETE
	SIDEWALK CONCRETE
	HEAVY DUTY ASPHALT



CIVIL SITE PLAN

PROJECT INFORMATION

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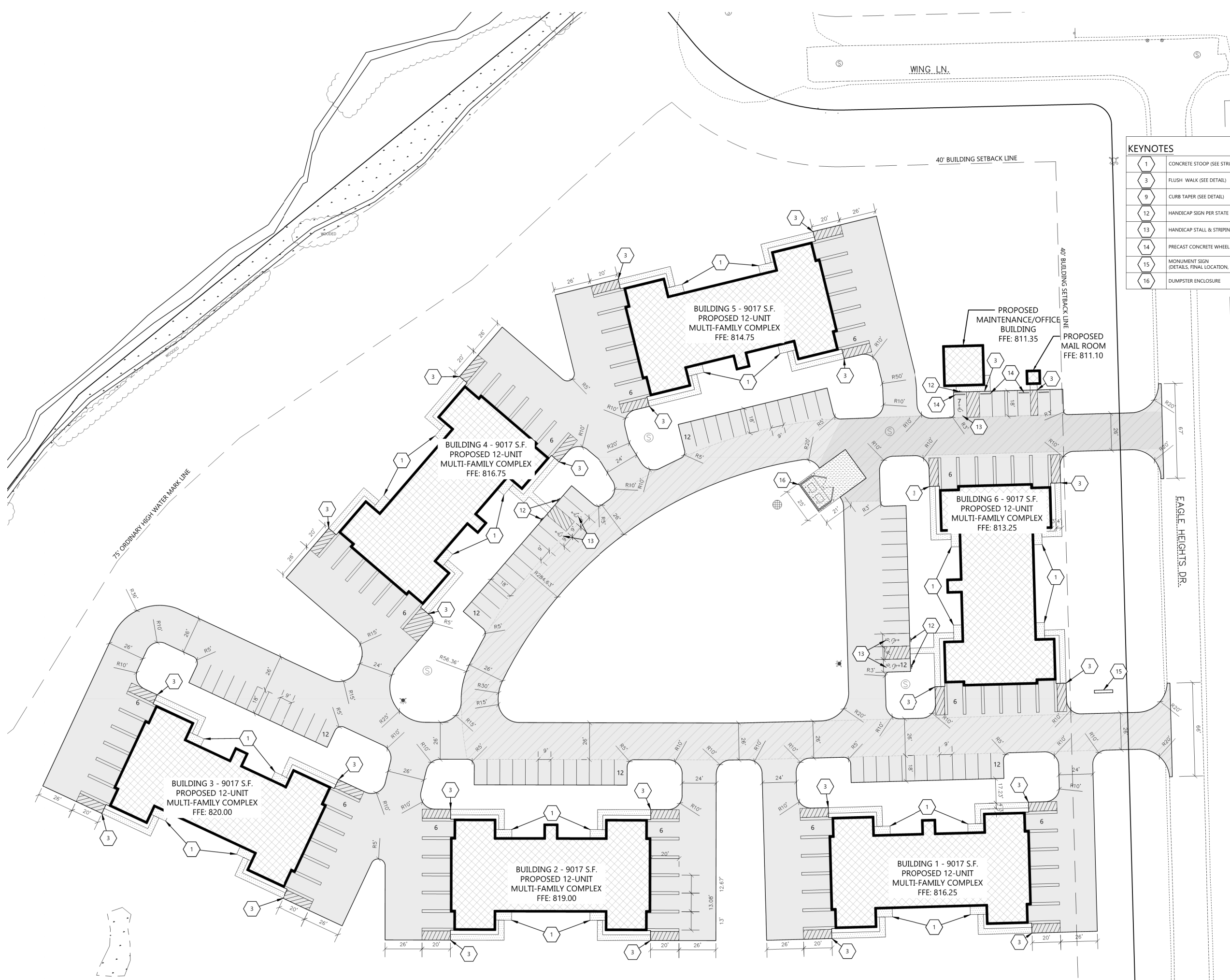
**NOT FOR CONSTRUCTION**

JOB NUMBER

250209100

SHEET NUMBER

**C1.1A**



KEYNOTES	
1	CONCRETE STOOP (SEE STRUCTURAL PLANS FOR DETAILS)
3	FLUSH WALK (SEE DETAIL)
9	CURB TAPER (SEE DETAIL)
12	HANDICAP SIGN PER STATE CODE (SEE DETAIL)
13	HANDICAP STALL & STRIPING PER STATE CODES
14	PRECAST CONCRETE WHEEL STOP (TYP.)
15	MONUMENT SIGN (DETAILS, FINAL LOCATION, & APPROVAL BY SIGN VENDOR)
16	DUMPSTER ENCLOSURE



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PROFESSIONAL SEAL

PRELIMINARY DATES

SEPT. 8, 2025

**NOT FOR CONSTRUCTION**

JOB NUMBER

250209100

SHEET NUMBER

**C1.2**

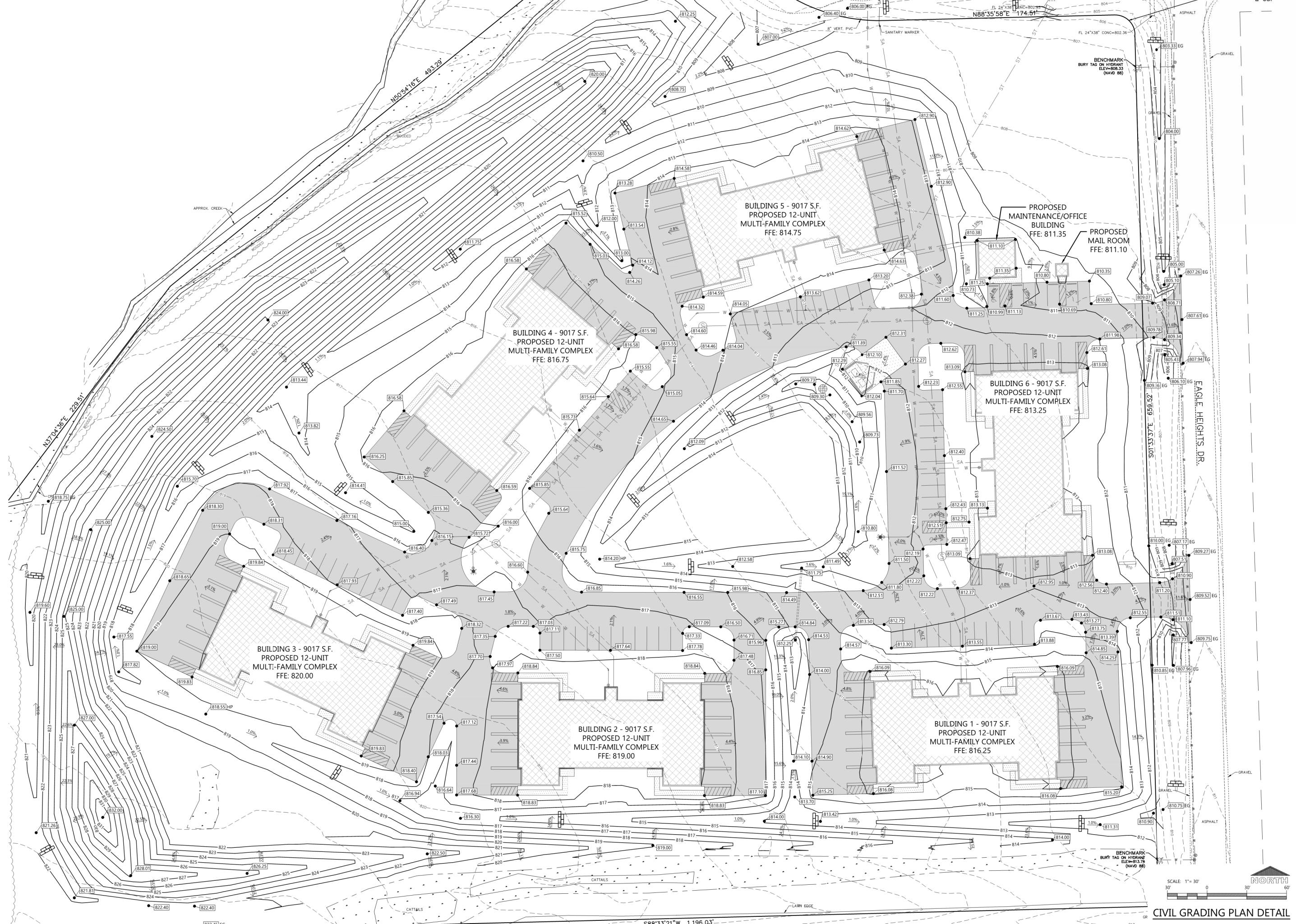
KEYNOTES

EC 1	SILT FENCE
EC 2	DITCH CHECK
EC 3	STABILIZED CONSTRUCTION ENTRANCE
EC 4	INLET PROTECTION
EC 5	CONCRETE WASHOUT
EC 6	SEDIMENT LOG

GENERAL NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.





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**JOB NUMBER**  
 250209100

**SHEET NUMBER**  
**C1.2A**

SCALE: 1" = 30'  
 30' 0' 30' 60'  
 NORTH  
**CIVIL GRADING PLAN DETAIL**



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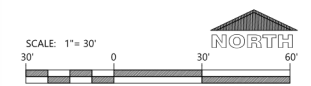
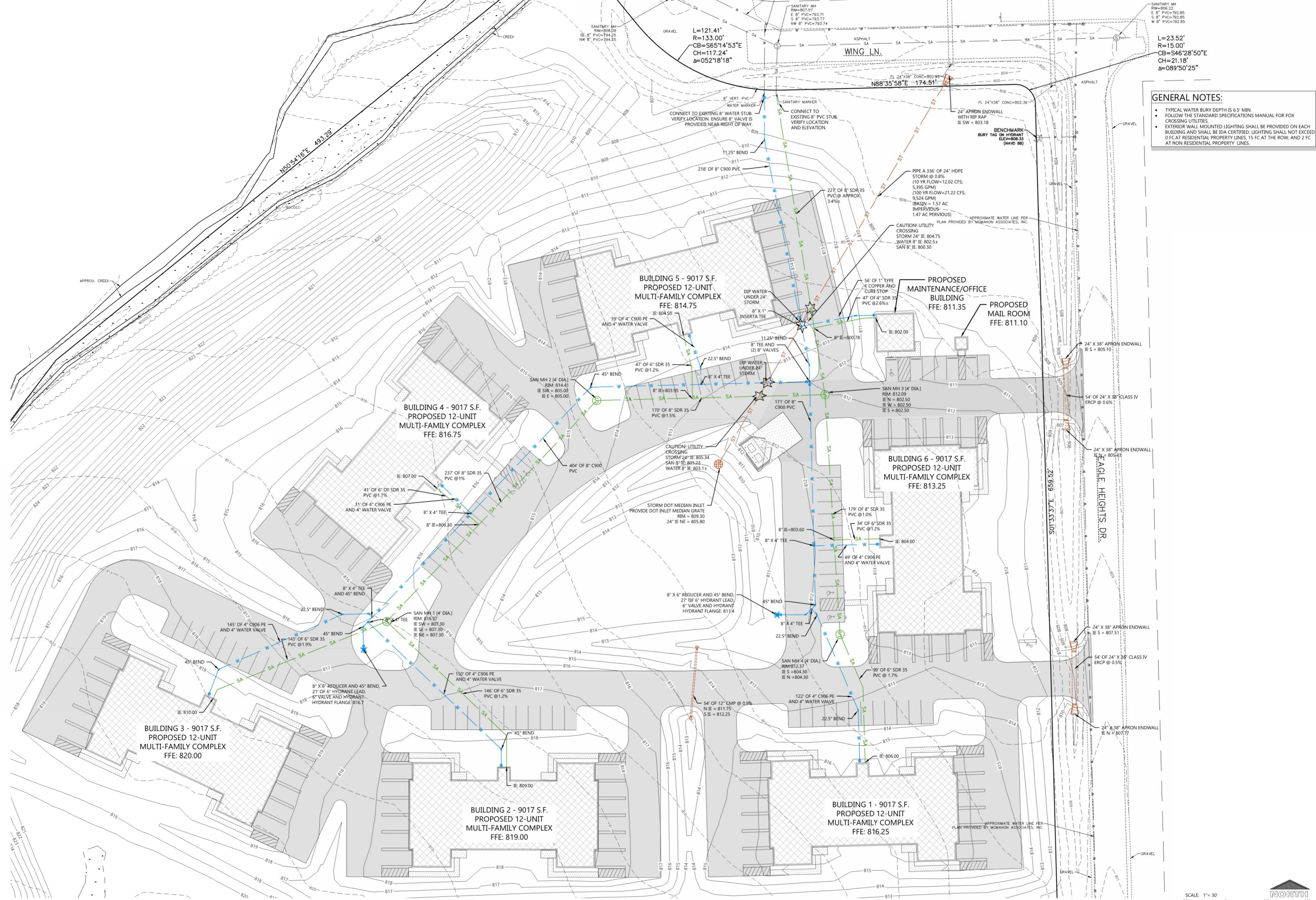
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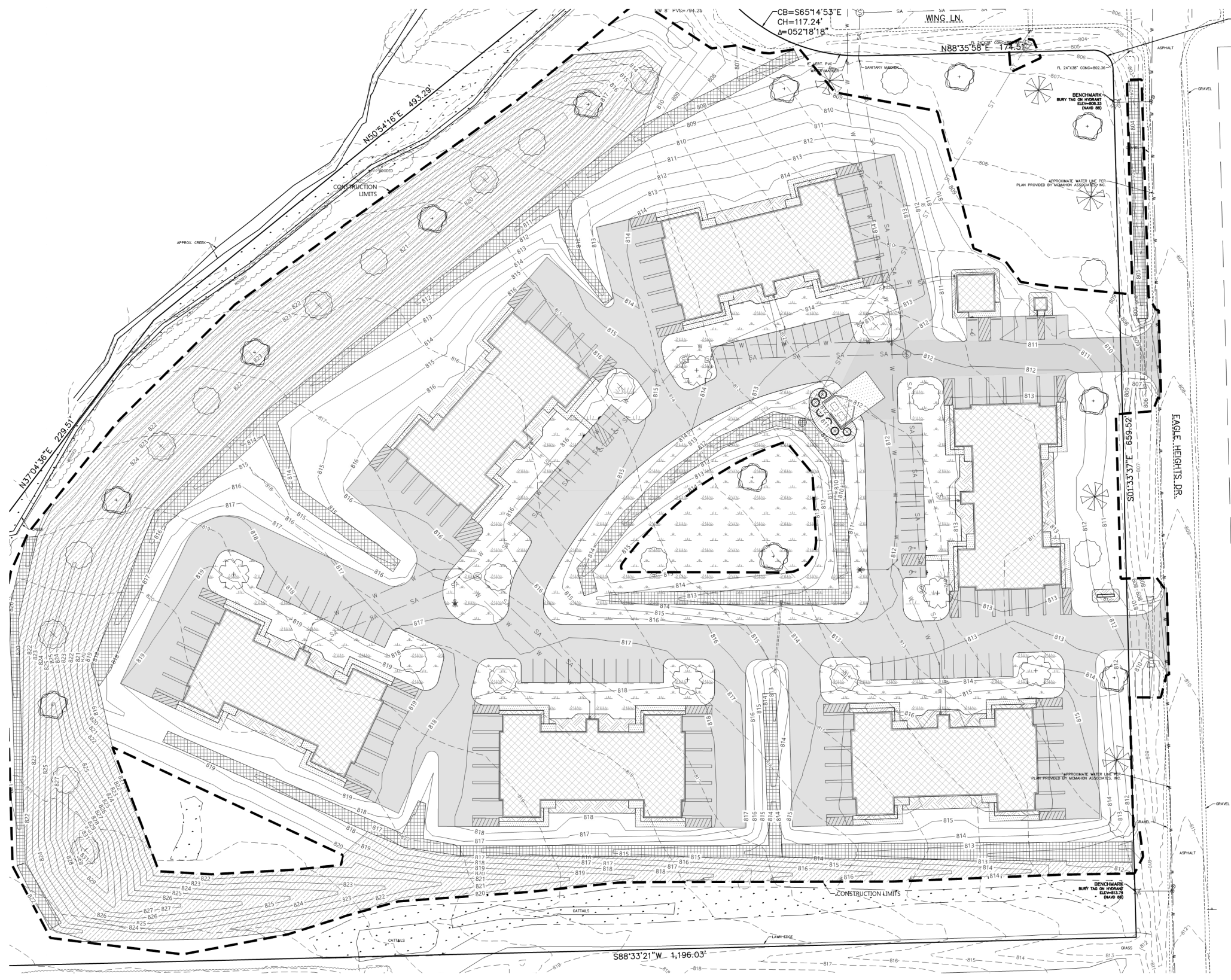
NOT FOR CONSTRUCTION

GENERAL NOTES:

- TYPICAL WATER BURY DEPTH IS 6.5' MIN.
- FOLLOW THE STANDARD SPECIFICATIONS MANUAL FOR FOX CROSSING UTILITIES.
- EXTERIOR WALL MOUNTED LIGHTING SHALL BE PROVIDED ON EACH BUILDING AND SHALL BE ADA CERTIFIED. LIGHTING SHALL NOT EXCEED 0 FC AT RESIDENTIAL PROPERTY LINES, 15 FC AT THE ROW, AND 2 FC AT NON RESIDENTIAL PROPERTY LINES.



CIVIL UTILITY PLAN



LANDSCAPING PLANTING SCHEDULE				
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
DECIDUOUS TREES				
⊙	Red Maple	Acer rubrum	2"	12
⊙	River Birch	Betula nigra	2"	5
⊙	Chinkapin Oak	Quercus muhlenbergii	2"	14
⊙	Hackberry	Celtis occidentalis	2"	5
EVERGREEN TREES				
⊙	Black Hills Spruce	Picea glauca	6"	10
⊙	Emerald Green Arborvitae	Thuja occidentalis 'Smaragd'	6"	6

LANDSCAPING CALCULATIONS		
PLANT	REQ. PLANTS	PLANTS PROVIDED
TREE REQUIREMENTS	1 SHADE, EVERGREEN OR ORNAMENTAL TREE FOR EVERY 4,500 SQUARE FEET OF DEVELOPED AREA* = 52 TREES REQUIRED	52 TOTAL TREES PROVIDED: 36 DECIDUOUS TREES 16 EVERGREEN TREES

\*TOTAL DEVELOPED AREA = 235,211 SQUARE FEET

HATCH	LANDSCAPE MATERIAL
	MINERAL MULCH
	SEEDED LAWN
	EROSION MATTING (NAG C125) OVER SEEDED LAWN (SWALE BOTTOMS & SWM)
	EROSION MATTING (NAG S150) OVER SEEDED LAWN (> OR = 4:1 SLOPES OUTSIDE OF SWM)

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PROFESSIONAL SEAL

**PRELIMINARY DATES**  
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**JOB NUMBER**  
250209100

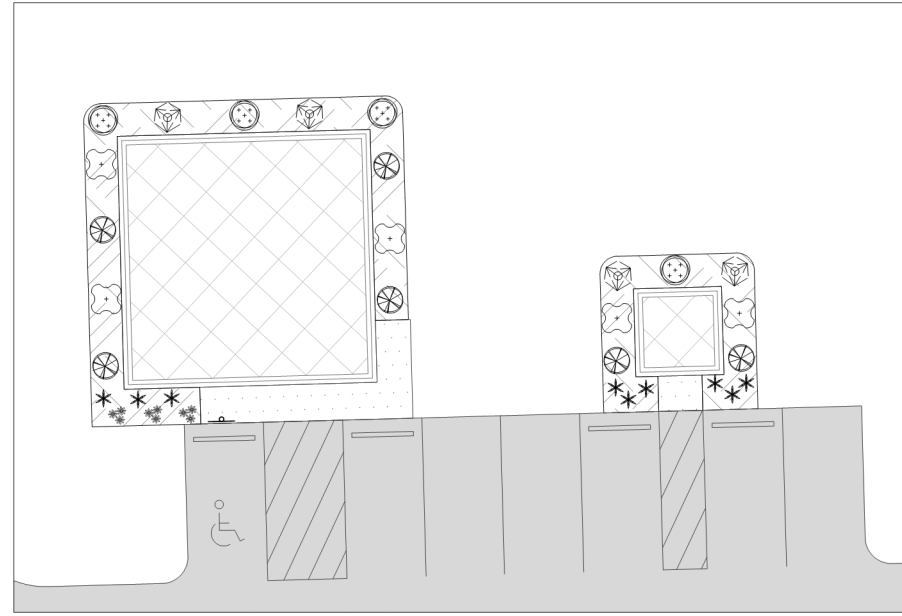
**SHEET NUMBER**  
**C1.4**

SCALE: 1" = 40'

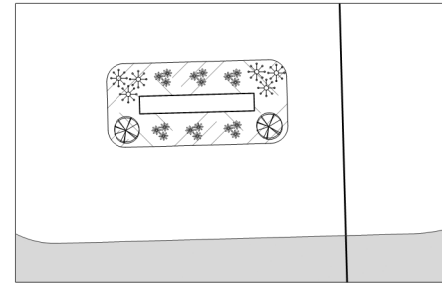
NORTH

CIVIL LANDSCAPE AND RESTORATION PLAN

**NOT FOR CONSTRUCTION**



OFFICE, MAILROOM, AND SIGNAGE PLANTING DETAIL

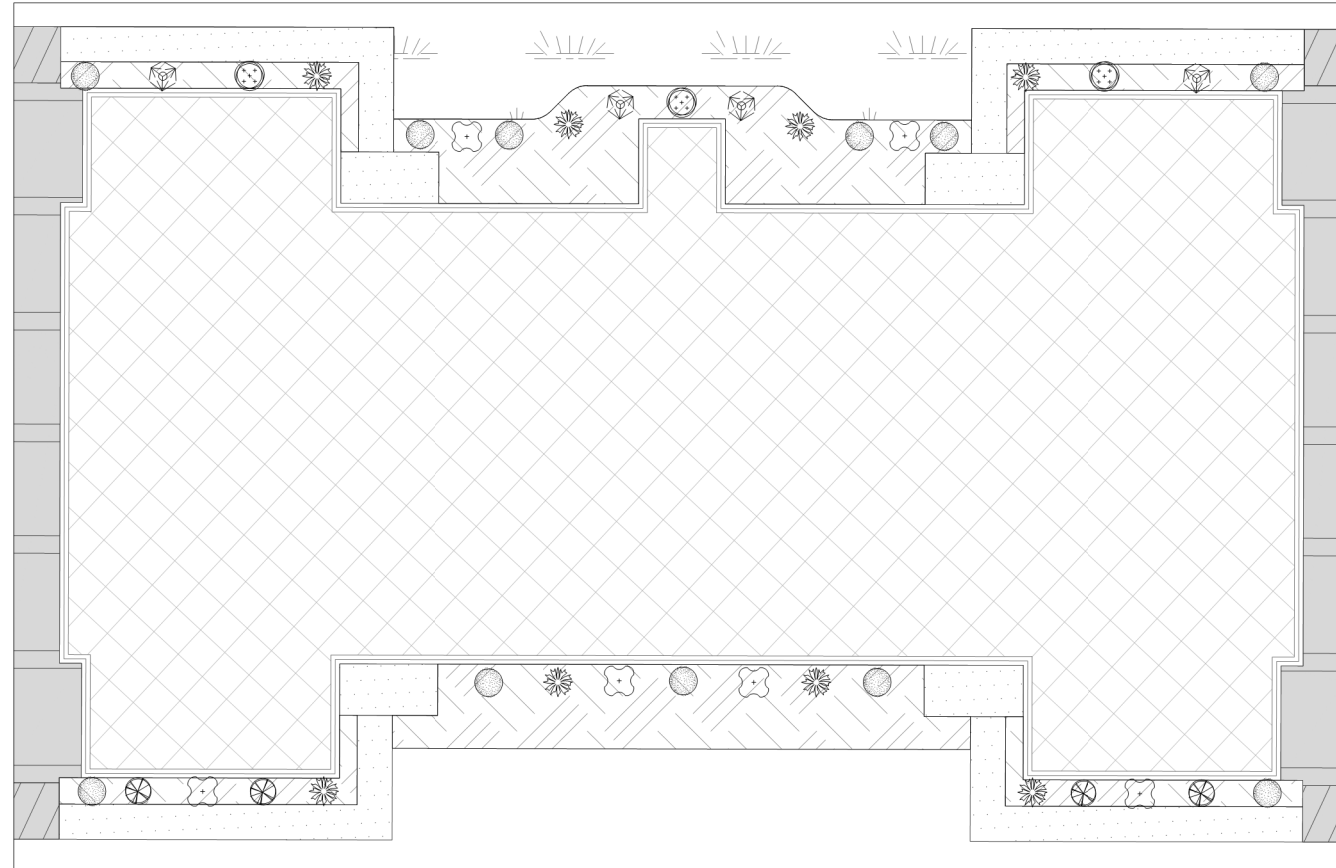


LANDSCAPING PLANTING SCHEDULE				
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
DECIDUOUS SHRUBS				
🌿	Inoquois Beauty Black Chokeberry	Aronia melanocarpa 'Morton'	x'-x"	48
🌿	Annabelle Hydrangea	Hydrangea arborescens	x'-x"	28
🌿	Little Devil Ninebark	Physocarpus opulifolius 'Little Devil'	x'-x"	66
🌿	Dreamcloud Lilac	Syringa patula 'KLMone'	24"	41
EVERGREEN SHRUBS				
🌿	Green Velvet Boxwood	Buxus 'Green Velvet'	18"	32
🌿	Dense Yew	Taxus x media 'Densiformis'	24"	22
PERENNIALS				
🌿	Karl Foerster Reed Grass	Clamagrostis x acutiflora 'Karl Foerster'	1 gal pot	9
🌿	'Cat's Pajamas' Catmint	Nepeta 'Cat's Pajamas'	1 gal pot	9
🌿	First Frost Hosta	Hosta 'First Frost'	1 gal pot	6

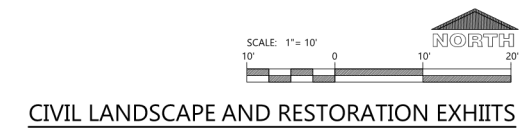
LANDSCAPING CALCULATIONS		
PLANT	REQ. PLANTS	PLANTS PROVIDED
SHRUB REQUIREMENTS	1 UNDERSTORY SHRUB FOR EVERY 1,000 SQUARE FEET OF DEVELOPED AREA* = 235 SHRUBS REQUIRED	237 TOTAL SHRUBS PROVIDED; 183 DECIDUOUS SHRUBS 54 EVERGREEN SHRUBS

\*TOTAL DEVELOPED AREA = 235,211 SQUARE FEET

HATCH KEY:	
HATCH	LANDSCAPE MATERIAL
	MINERAL MULCH
	SEEDING LAWN



TYPICAL BUILDING PLANTING DETAIL



PROJECT INFORMATION

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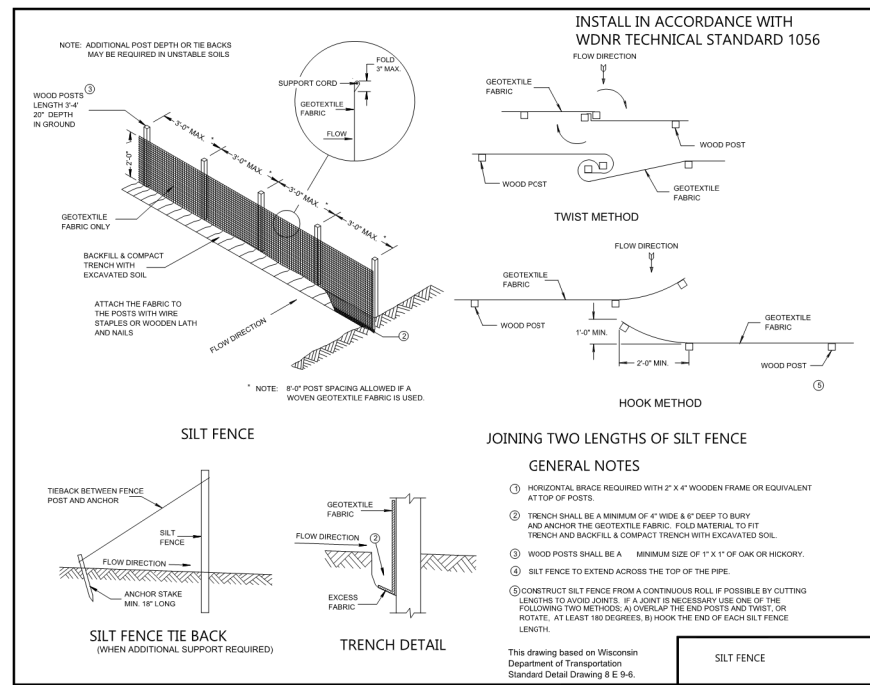
PROFESSIONAL SEAL

PRELIMINARY DATES  
 SEPT. 8, 2025

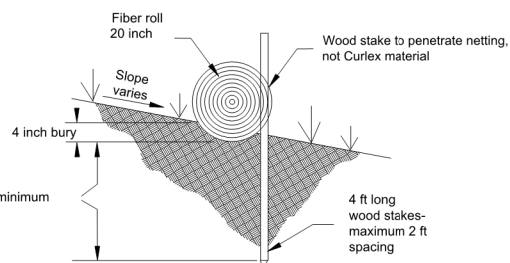
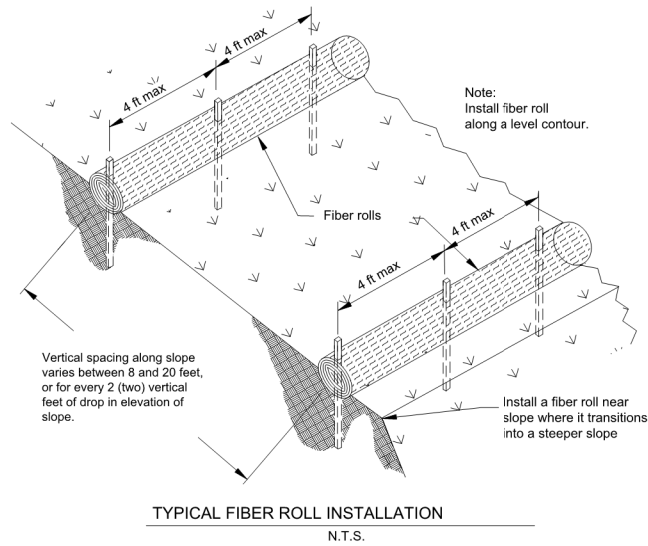
NOT FOR CONSTRUCTION

JOB NUMBER  
 250209100

SHEET NUMBER  
**C1.4A**



**SILT FENCE - INSTALLATION DETAIL**  
NOT TO SCALE



**GENERAL NOTES**

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD NO. 1053 (CHANNEL EROSION MAT).

VARIATIONS IN THE DIMENSIONS OR MATERIALS SHOWN HEREON SHALL BE PERMITTED IF THEY PROVIDE EQUIVALENT PROTECTION AND MATERIAL STRENGTH AND IF PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.

LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V-SHAPED DITCHES.

JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 FEET APART.

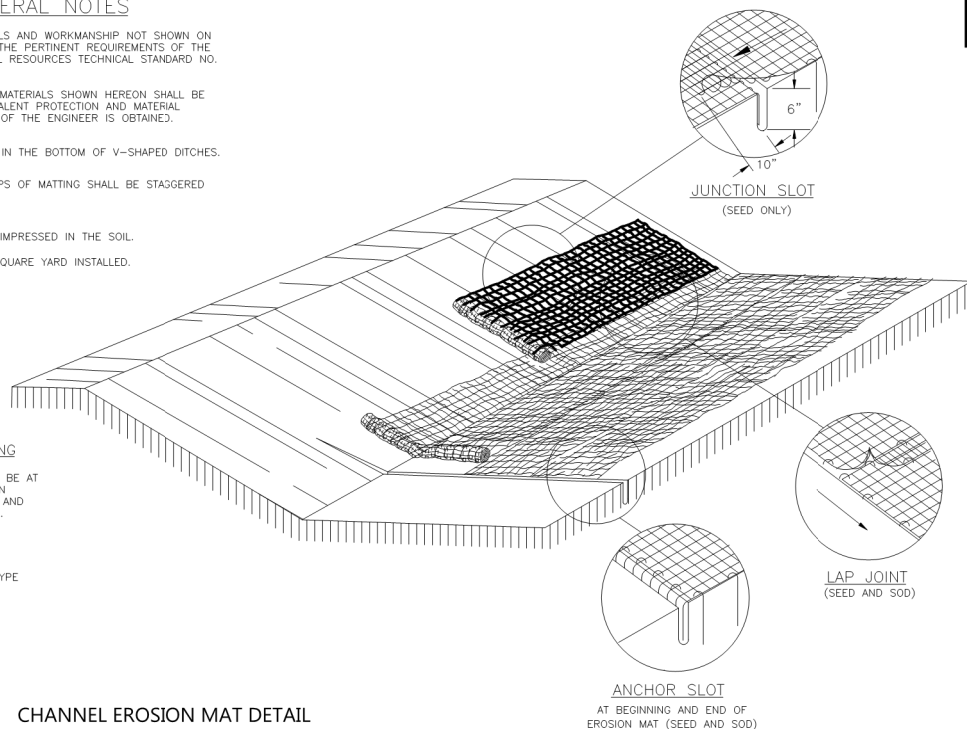
EDGES OF EROSION MAT SHALL BE IMPRESSED IN THE SOIL.

EROSION MAT SHALL PAID BY THE SQUARE YARD INSTALLED.

**EROSION MAT OVER SEEDING**

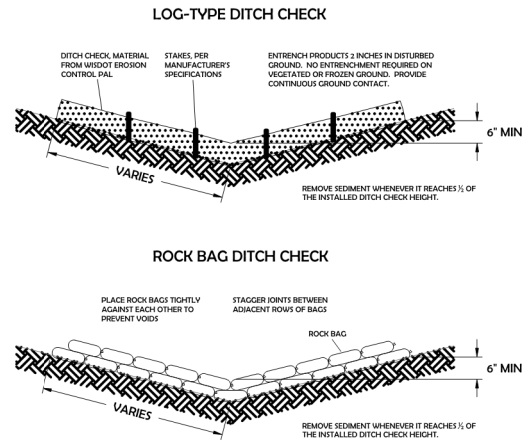
JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET ON GRADES UP TO AND INCLUDING 3%, AND 50 FEET ON GRADES EXCEEDING 3%.

NOTE: SEE SPECIFICATIONS FOR MATTING TYPE



**CHANNEL EROSION MAT DETAIL**  
NOT TO SCALE

**DITCH CHECK DETAIL**

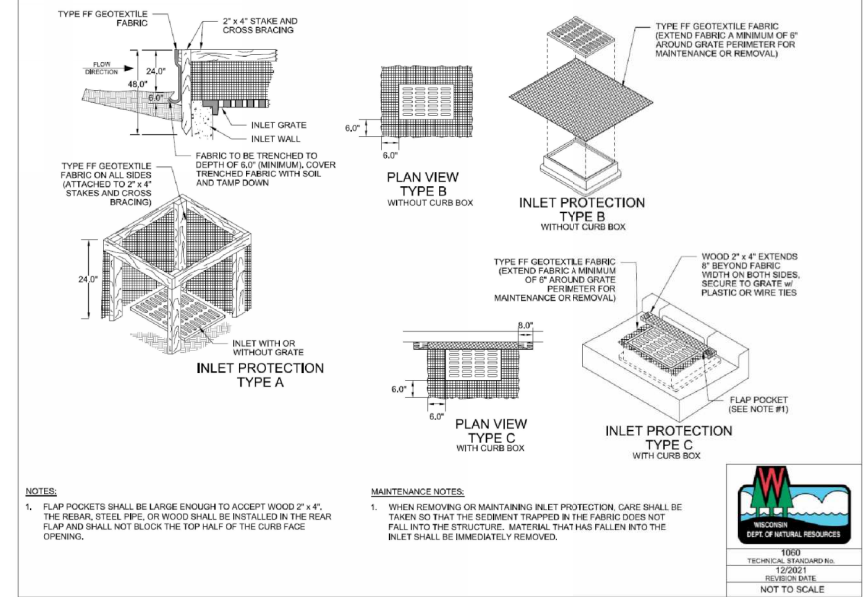


FILL BAGS WITH AGGREGATE CONFORMING TO THE FOLLOWING GRADATION (WOODOT NO. 1 COARSE AGGREGATE)

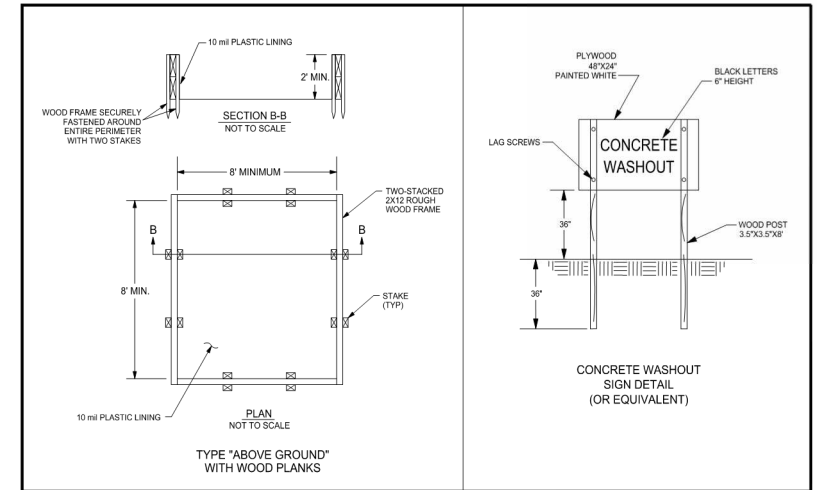
SEIVE	PERCENT PASSING BY WEIGHT
2-INCH	-
1.5-INCH	-
1-INCH	100
0.75-INCH	90-100
0.5-INCH	20-55
No. 4	0-10
No. 8	0-5

PROVIDE BAGS MADE OF HIGH-DENSITY POLYETHYLENE OR GEOTEXTILE FABRIC. BAGS SHALL HAVE A MINIMUM IN-PLACE FILLED SIZE OF 18 INCHES LONG BY 12 INCHES WIDE BY 6 INCHES HIGH.

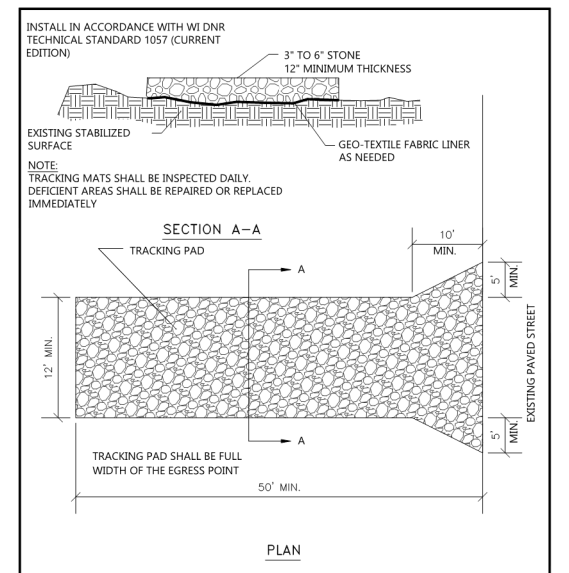
**FIGURE 1. INLET PROTECTION TYPES A, B AND C**



**INLET PROTECTION DETAIL**  
NOT TO SCALE



**CONCRETE WASHOUT DETAIL**  
NOT TO SCALE



**TRACKPAD DETAILS**  
NOT TO SCALE

**PROJECT INFORMATION**

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PROFESSIONAL SEAL

**PRELIMINARY DATES**

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**SHEET NUMBER**

**C2.0**

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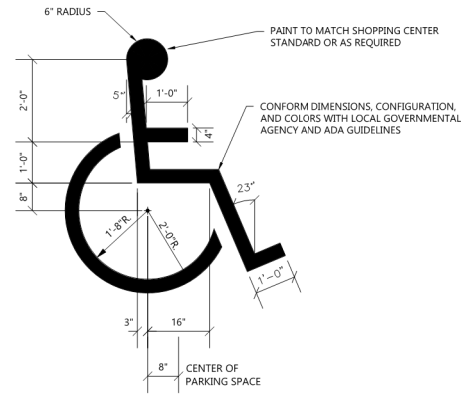
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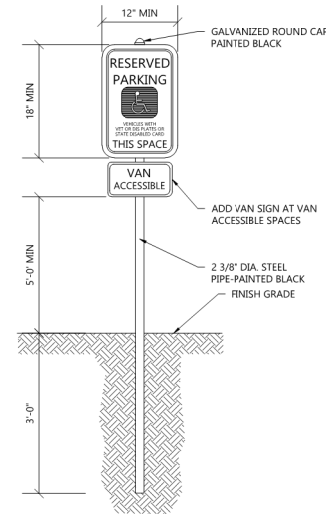
SHEET NUMBER

**C2.1**

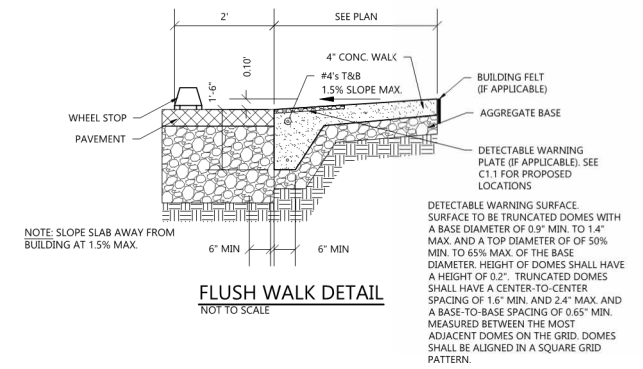
NOT FOR CONSTRUCTION



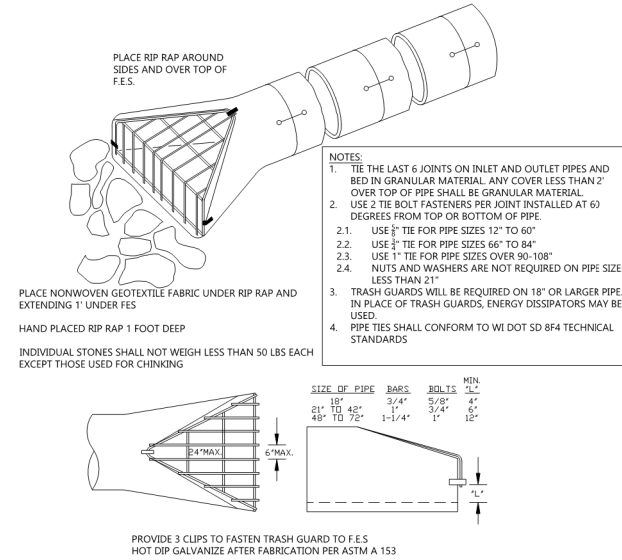
**HANDICAP STALL SYMBOL**  
NOT TO SCALE



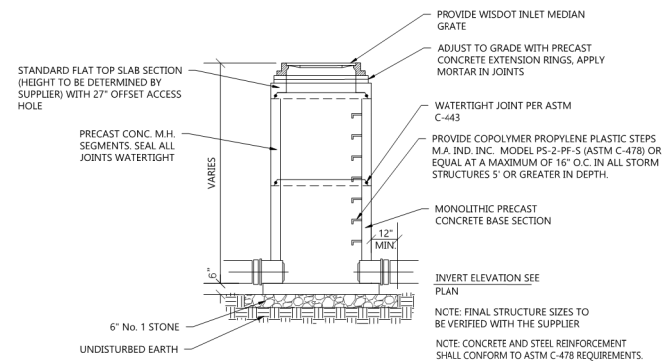
**HANDICAP SIGNAGE WITHOUT CONCRETE BASE DETAIL**  
NOT TO SCALE



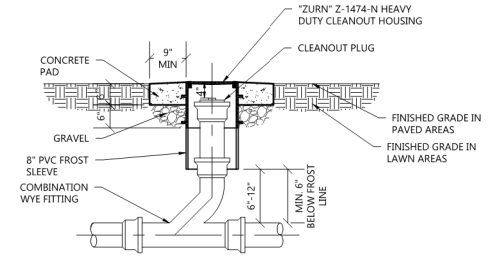
**FLUSH WALK DETAIL**  
NOT TO SCALE



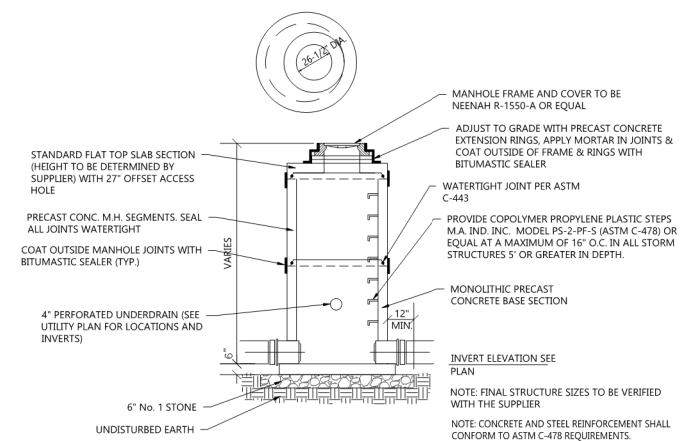
**CONCRETE END SECTION DETAIL**  
NOT TO SCALE



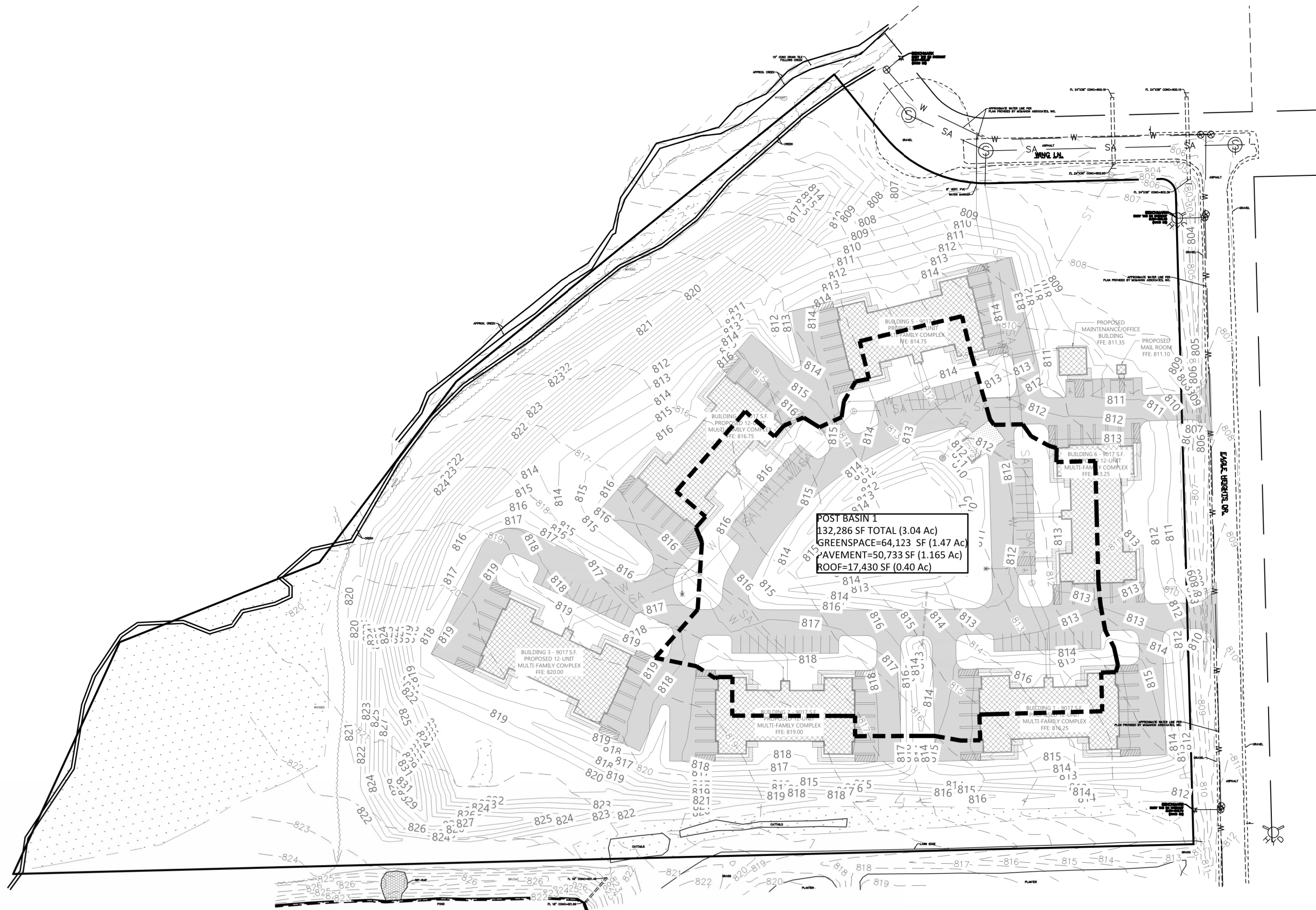
**STORM WISDOT MEDIAN INLET DETAIL**  
NOT TO SCALE



**CLEANOUT TO GRADE DETAIL**  
NOT TO SCALE



**SANITARY MANHOLE DETAIL**  
NOT TO SCALE



**POST BASIN 1**  
 132,286 SF TOTAL (3.04 Ac)  
 GREENSPACE=64,123 SF (1.47 Ac)  
 PAVEMENT=50,733 SF (1.165 Ac)  
 ROOF=17,430 SF (0.40 Ac)

Pipe Data					Pipe Capacity (10-yr, 24-hr)				
Pipe ID	Diameter (FT)	Pipe Qty.	Slope (FT/FT)	Manning's n	Basin ID	Total Flow (cfs)	Total Flow (gpm)	Full Flow Capacity (cfs)	Full Flow Capacity (gpm)
A	2	1	0.008	0.012	1	12.02	5,395	21.70	9,740

## STORM SEWER BASIN MAP

