

# CITY OF ST. JOHNS

## Fantasy Forest 2.0 Playground Improvements Playground Installation and Sitework



**CITY COMMISSION**  
 Mayor Scott Dzurka  
 Vice Mayor Brad Gurski  
 Commissioner Chris Hyzer  
 Commissioner Eric Hufnagel  
 Commissioner Chris DeLiso

**Kristina Kinde**  
 TREASURER

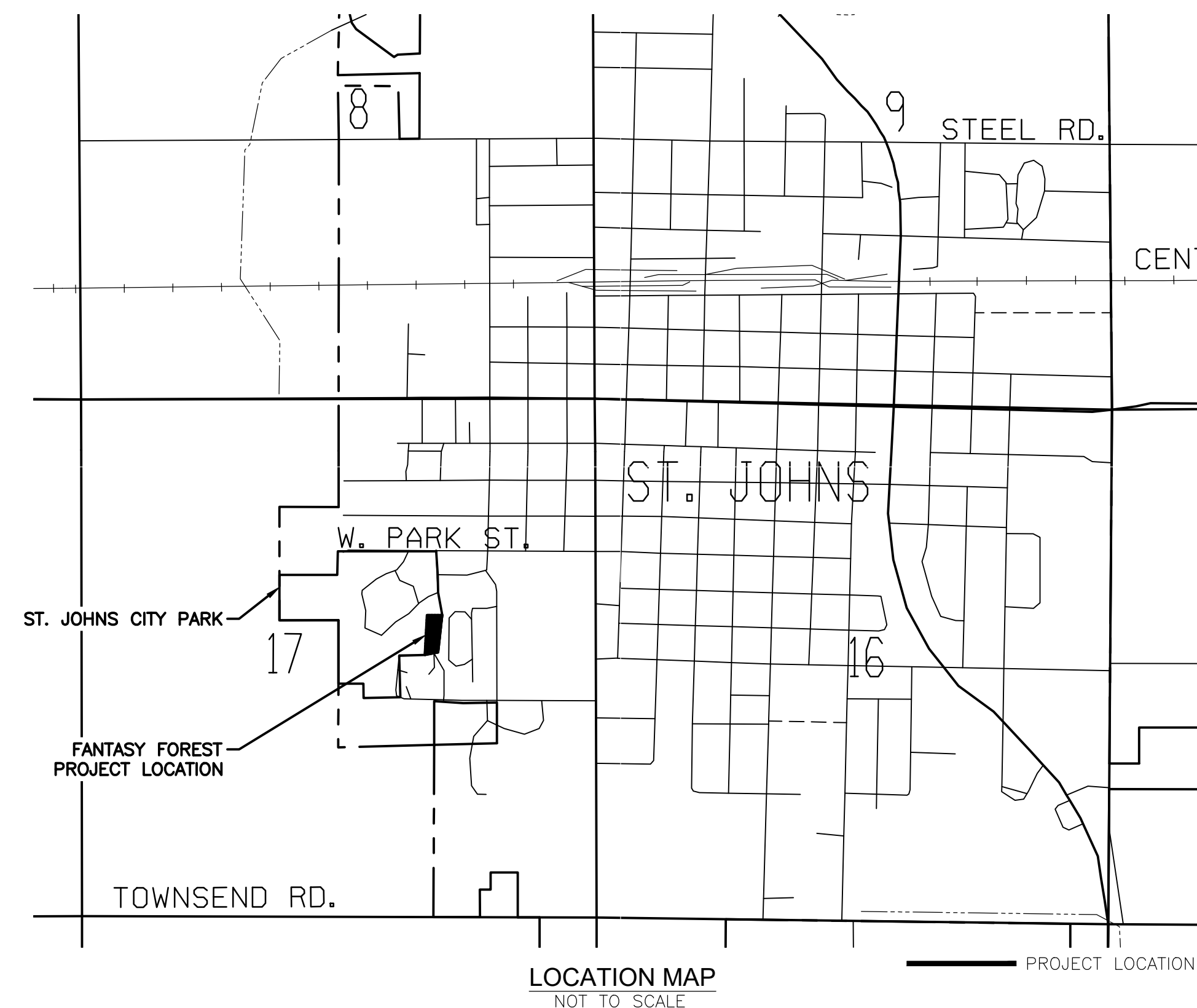
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 CITY MANAGER  
 100 E State St, Suite #1100  
 St Johns, MI 48879  
 989.224.8944  
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**Justin Smith**  
 DIRECTOR OF PUBLIC SERVICES  
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 jsmith@stjohnsmi.gov

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ISSUED FOR \_\_\_\_\_ DATE \_\_\_\_\_ BY \_\_\_\_\_  
 BID 01/16/25 CAD



Know what's below.  
 Call before you dig.

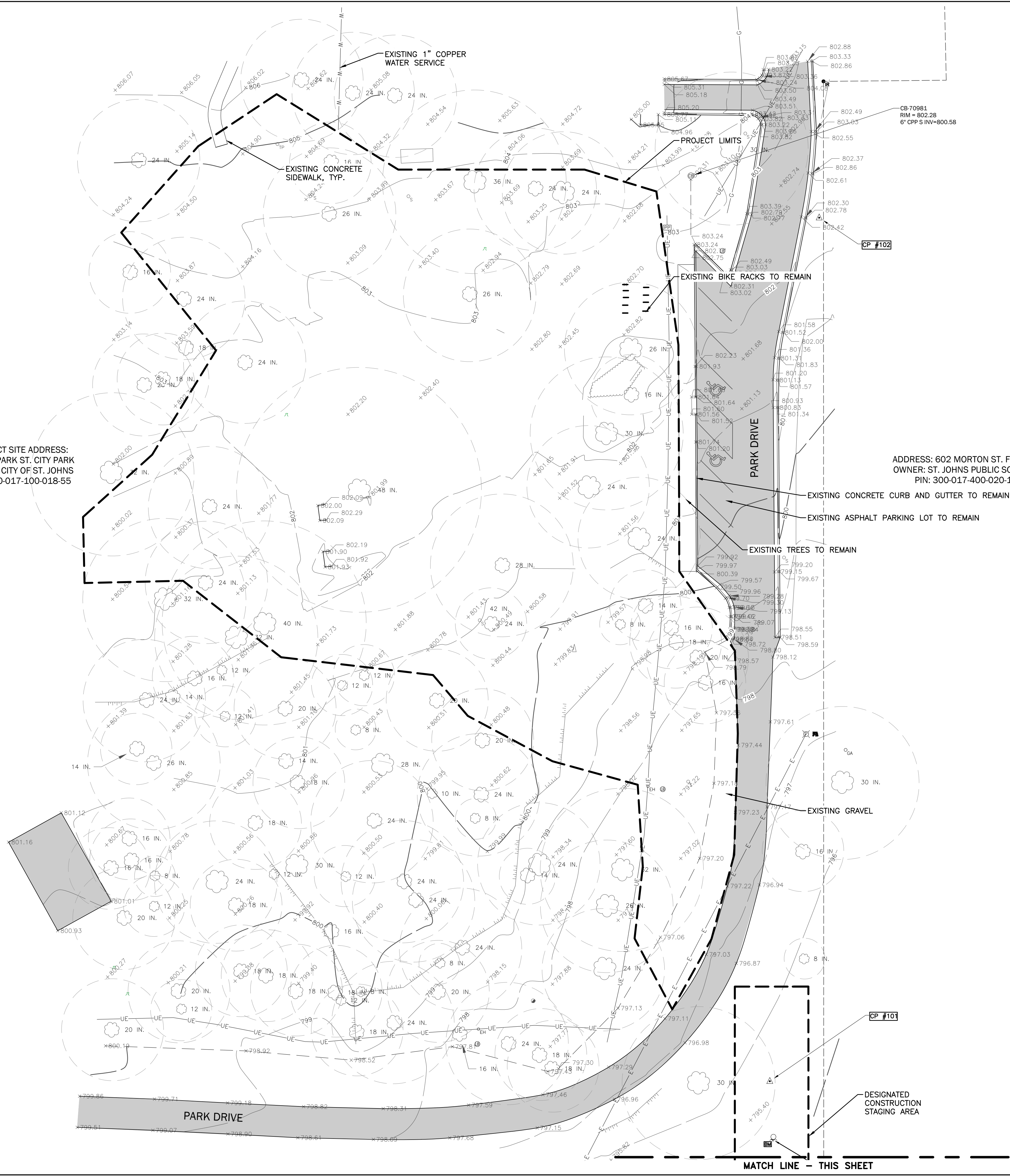
JOB NO. <b>CSJ200101D</b>	SHEET <b>G-1.0</b>
PREPARED UNDER THE SUPERVISION OF:	
# 3901001766 CATHERINE A. DENNIS, PLA REGISTRATION NO.	

PROJECT MANAGER: Catherine Dennis, G:\\_WORK\2025\011473917\PH - GCS - PLOTS - COVER.DWG - G-1.0 - PLOTTED 1/16/2025 3:20 PM BY DENNIS, KATIE

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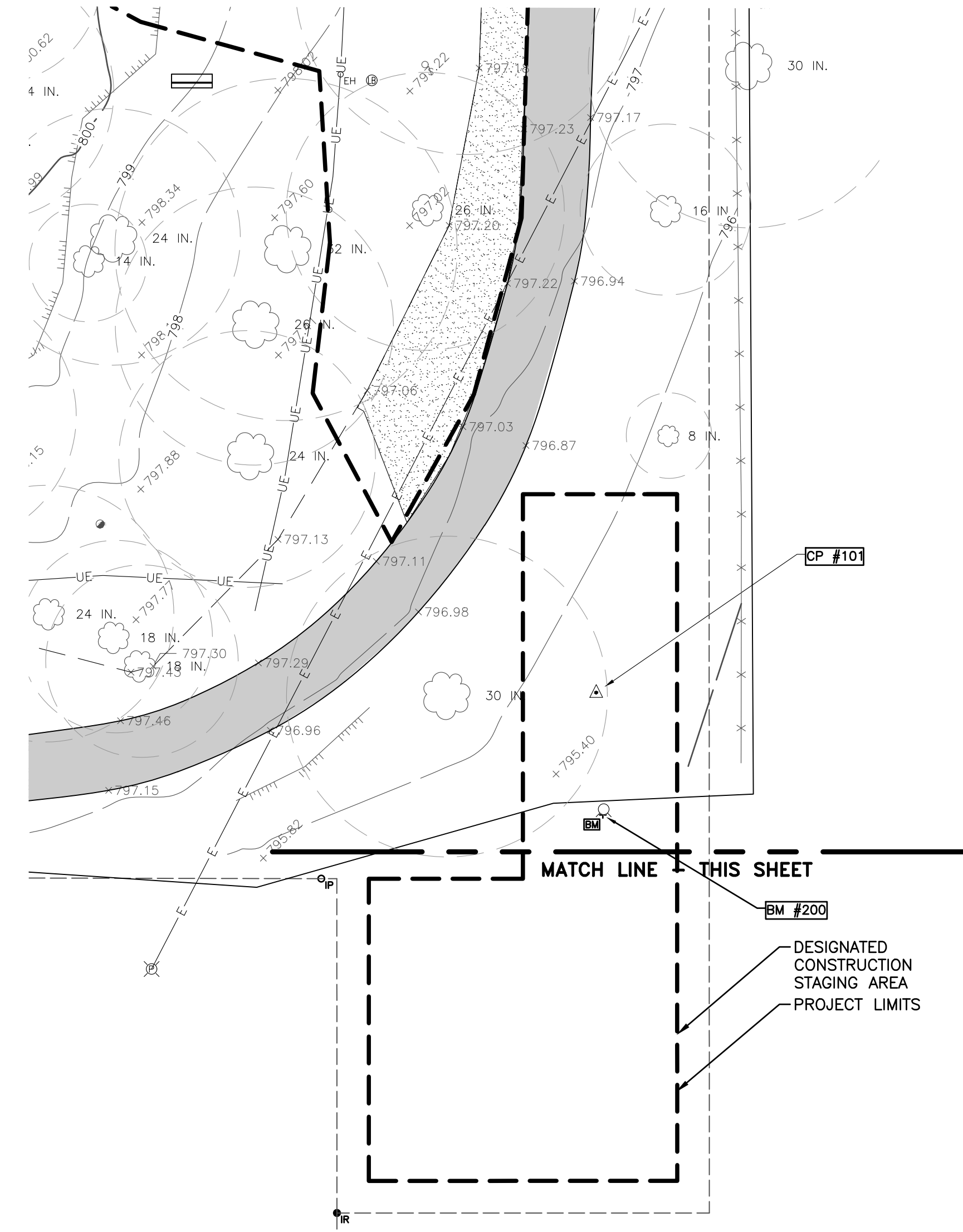
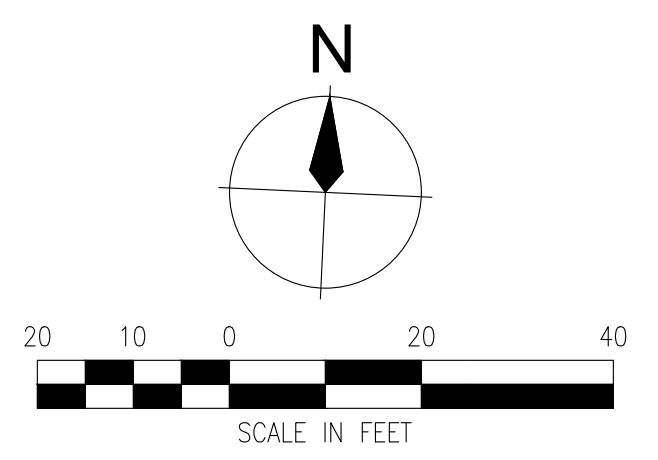


PROJECT MANAGER: C:\P\WORK\2\11473917\PH I\ISP-PLTS-EXISTING CONDITIONS.DWG - C-1.0 - PLOTTED 1/15/2025 2:24 PM BY DENNIS, KATIE  
 FIELD BOOK INFORMATION: 801 W. PARK ST. CITY PARK



PROJECT SITE ADDRESS:  
 801 W. PARK ST. CITY PARK  
 OWNER: CITY OF ST. JOHNS  
 PIN: 300-017-100-018-55

ADDRESS: 602 MORTON ST. FB FIELD  
 OWNER: ST. JOHNS PUBLIC SCHOOLS  
 PIN: 300-017-400-020-10



**HORIZONTAL DATUM:**  
 NORTH AMERICAN DATUM OF 1983 (NAD83), MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE - 2113, INTERNATIONAL FEET, GPS DERIVED.

**VERTICAL DATUM:**  
 NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD29)

**BENCHMARK INFORMATION:**  
**BENCHMARK #200**  
 ELEVATION = 797.07  
 SOUTHEAST CORNER OF PARK, SOUTH BOLT ON HYDRANT, 25 FEET WEST OF FENCE, 83 FEET NORTH OF FENCE.  
**BENCHMARK #201**  
 ELEVATION = 809.14  
 CHISELED "X" IN CONCRETE SLAB, SOUTHEAST CORNER OF DRINKING FOUNTAIN SLAB, 15 FEET SOUTH OF SOUTHWEST CORNER RESTROOMS.

**CONTROL POINT INFORMATION:**  
**CONTROL POINT #100**  
 ELEVATION = 798.01  
 NORTHING = 544598.82  
 EASTING = 13069192.76  
 DESCRIPTION: SET 3/8"x18" IRON WITH CAP, SOUTH SIDE OF PARK BETWEEN PARK AND FAIRGROUNDS BETWEEN SECOND AND THIRD, 12 FEET SOUTH OF EDGE OF PAVEMENT NEAR TREE FROM ENTRANCE, 25 FEET NORTH OF EDGE OF PAVEMENT, 212 FEET WEST OF FENCE.  
**CONTROL POINT #101**  
 ELEVATION = 795.55  
 NORTHING = 544632.59  
 EASTING = 13069317.27  
 DESCRIPTION: SET 3/8"x18" IRON WITH CAP, 23 FEET NORTH OF HYDRANT, 25 FEET WEST OF FENCE, SOUTHEAST CORNER OF PARK.  
**CONTROL POINT #102**  
 ELEVATION = 802.51  
 NORTHING = 544971.11  
 EASTING = 13069396.62  
 DESCRIPTION: SET 3/8"x18" IRON WITH CAP, SOUTHEAST OF GREEN BUILDING, 48 FEET SOUTH OF FENCE CORNER, 6 FEET WEST OF FENCE.

BY	
DESCRIPTION	
DATE	
REV#	

500 General Avenue, Suite 200  
 313 961 3550  
 www.wadetrिम.com

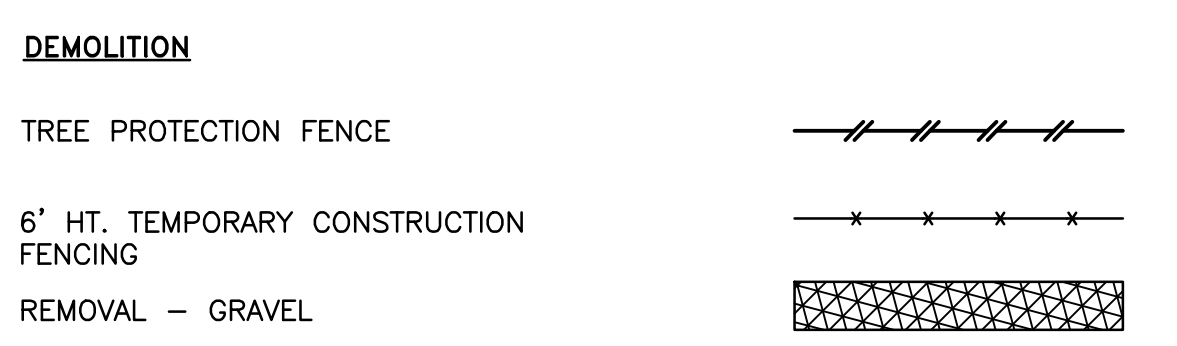
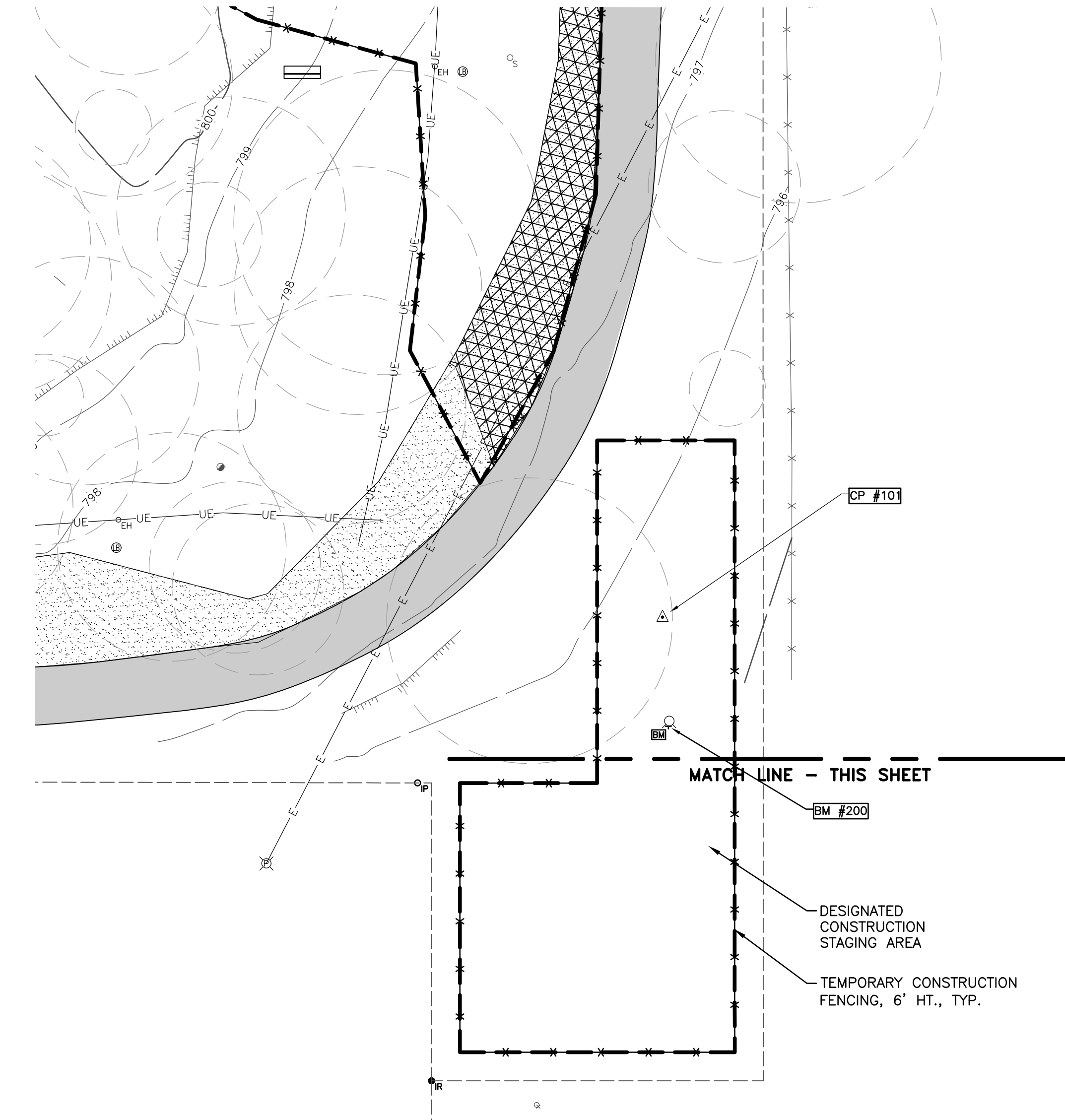
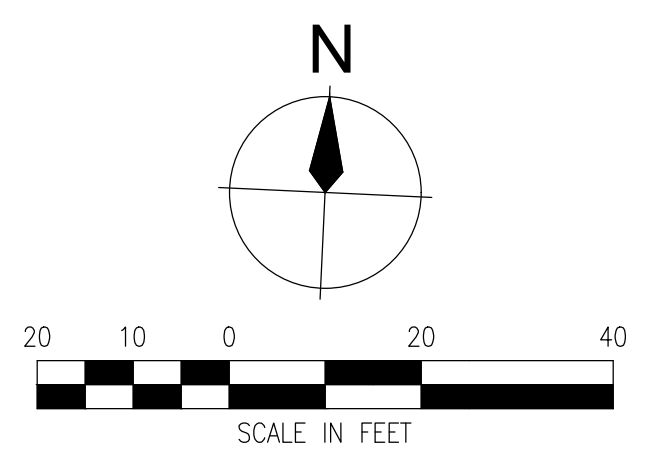
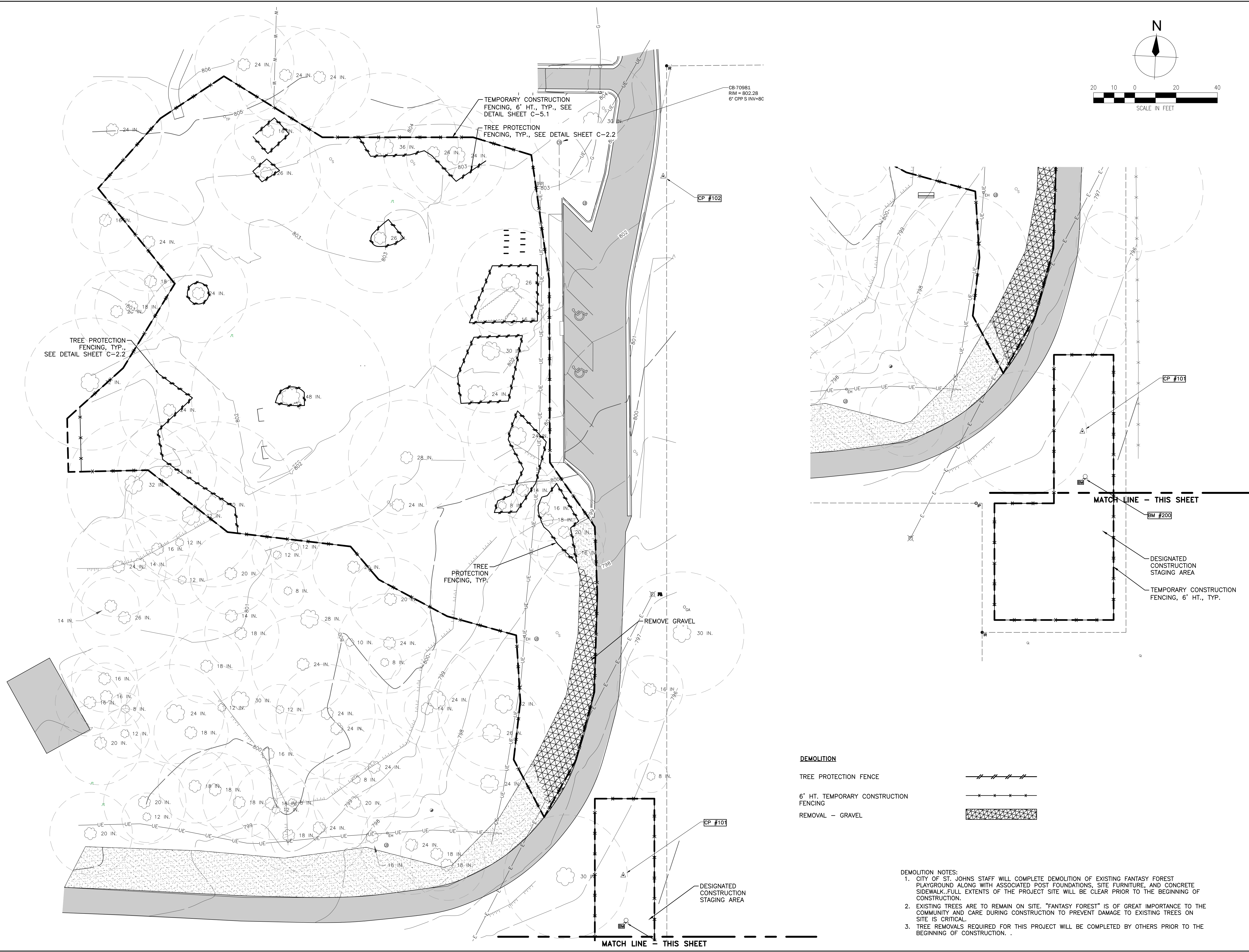
**City of St. Johns**  
**Fantasy Forest 2.0 Playground Improvements**  
**Playground Installation and Sitework**  
 EXISTING CONDITIONS PLAN

ISSUED FOR:	DATE:	BY:
MDNR Review	8/19/24	CD
90% Bid	12/20/24	CD
	01/16/25	CD

JOB NO. CSJ200101D  
 SHEET C-1.0

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PROJECT MANAGER: CA\_PW\_WORKS\01473917\CDP-PLTS-DEMO-PLANNING - C-2.0 - PLOTTED 1/15/2025 2:39 PM BY DENNIS, KATIE



**DEMOLITION NOTES:**

- CITY OF ST. JOHNS STAFF WILL COMPLETE DEMOLITION OF EXISTING FANTASY FOREST PLAYGROUND ALONG WITH ASSOCIATED POST FOUNDATIONS, SITE FURNITURE, AND CONCRETE SIDEWALK. FULL EXTENTS OF THE PROJECT SITE WILL BE CLEAR PRIOR TO THE BEGINNING OF CONSTRUCTION.
- EXISTING TREES ARE TO REMAIN ON SITE. "FANTASY FOREST" IS OF GREAT IMPORTANCE TO THE COMMUNITY AND CARE DURING CONSTRUCTION TO PREVENT DAMAGE TO EXISTING TREES ON SITE IS CRITICAL.
- TREE REMOVALS REQUIRED FOR THIS PROJECT WILL BE COMPLETED BY OTHERS PRIOR TO THE BEGINNING OF CONSTRUCTION.

REV#	DATE	DESCRIPTION	BY

500 General Avenue, Suite 2000  
 313.961.8500  
 www.wadetrim.com

**City of St. Johns**  
**Fantasy Forest 2.0 Playground Improvements**  
**Playground Installation and Sitework**  
 DEMOLITION PLAN

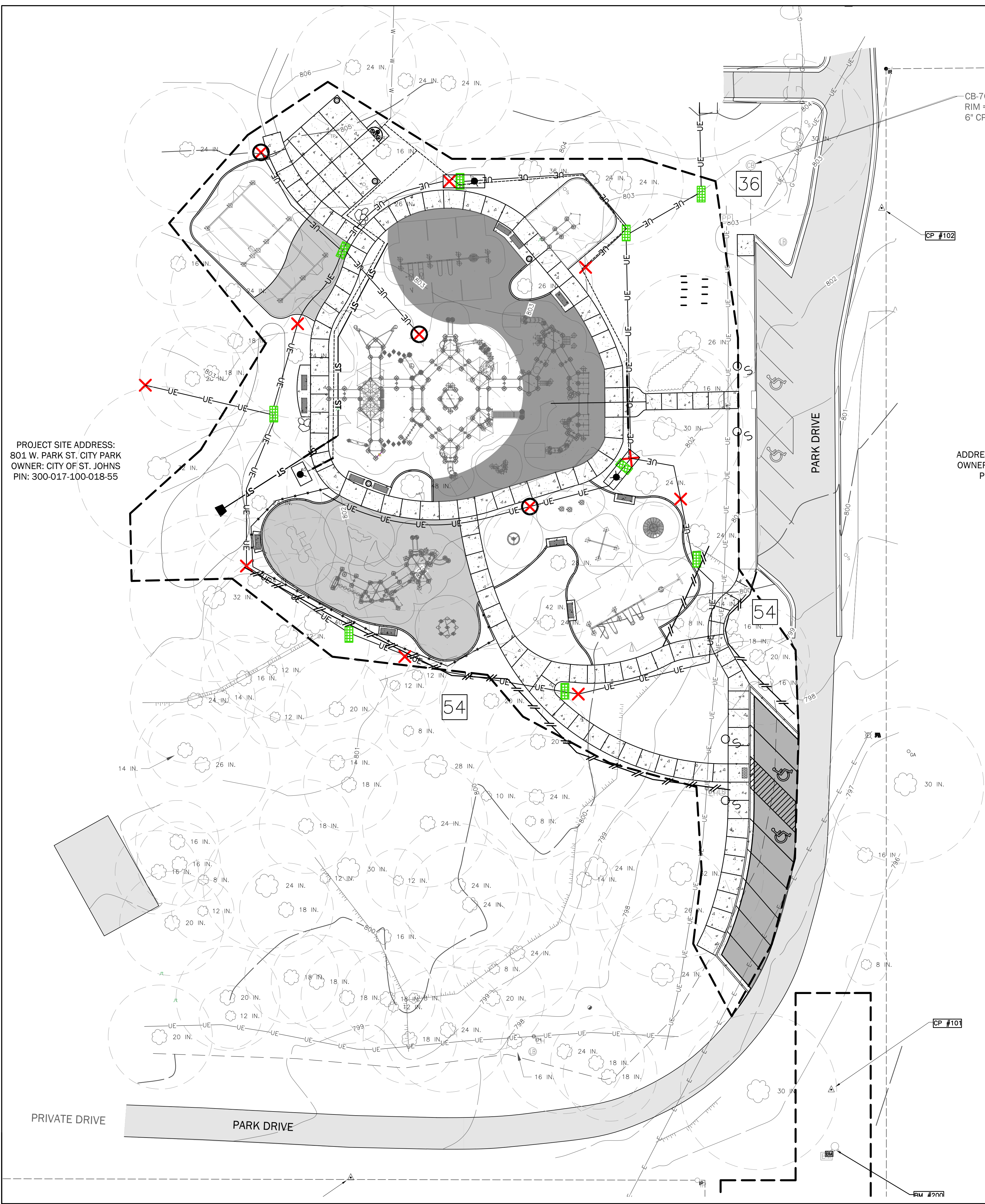
ISSUED FOR: DATE: BY:  
 90% Review 8/19/24 CD  
 Bid 12/20/24 CD  
 01/16/25 CD

JOB NO.  
**CSJ200101D**

SHEET  
**C-2.0**

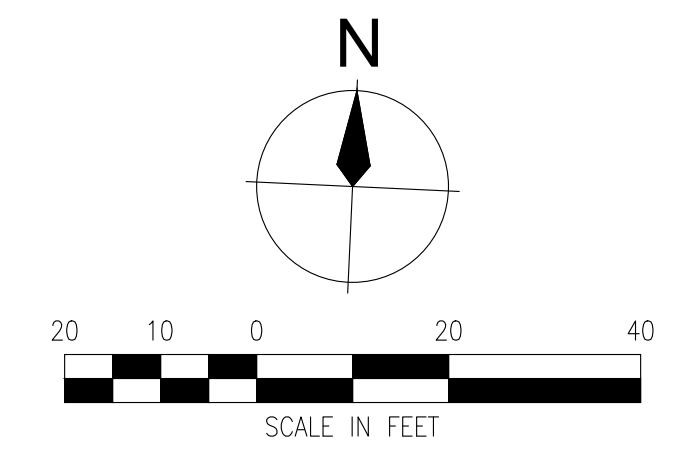
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PROJECT MANAGER: C:\PW\WORK\01473917\CGC-PLIS-SESC-PLAN.DWG - C-2.1 - PLOTTED 1/15/2025 2:23 PM BY DENNIS, KATE



PROJECT SITE ADDRESS:  
801 W. PARK ST. CITY PARK  
OWNER: CITY OF ST. JOHNS  
PIN: 300-017-100-018-55

ADDRESS: 602 MORTON ST. FB FIELD  
OWNER: ST. JOHNS PUBLIC SCHOOLS  
PIN: 300-017-400-020-10



### Michigan unified keying system (modified)

\* indicates applicability of a specific control measure to one or more of the seven problem areas

KEY	DETAIL	CHARACTERISTICS	PROBLEM AREAS							
			A	B	C	D	E	F	G	
1	Dust Control - No Detail -	DUST CONTROL APPLICATIONS TO INCLUDE STREET SWEEPING AND MAY INCLUDE WATERING, CHEMICAL DUST SUPPRESSION, GRAVEL OR ASPHALT SURFACING, TEMPORARY AGGREGATE COVER AND HAUL TRUCK COVERS	*					*	*	
36	Catch Basin Inlet Protection	COLLECTS HIGH VELOCITY CONCENTRATED RUNOFF MAY USE FILTER CLOTH OVER INLET						*		*
39	Fabric Filter Curb Inlet Protection	CAN UTILIZE MATERIAL FOUND ON-SITE EASY TO CONSTRUCT FILTERS SEDIMENT FROM RUNOFF				*				*
54	Silt Fence	USES GEOTEXTILE FABRIC AND PILES OR POLES EASY TO CONSTRUCT AND LOCATE AS NECESSARY	*		*			*		*

### SOIL EROSION AND SEDIMENTATION CONTROL SCHEDULE

CONSTRUCTION SEQUENCE	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
TEMPORARY SESC MEASURES												
STRIP AND STOCKPILE												
DEMOLITION												
ROUGH GRADING												
UNDERGROUND UTILITIES												
SITE/PARK IMPROVEMENTS												
PERMANENT SESC MEASURES												
FINAL GRADE												
LANDSCAPING												
MAINTENANCE SEQUENCE												
STREET SWEEPING												
SILT FENCING												
MAINTAIN BUFFER STRIPS												
INLET PROTECTION												
HYDROSEEDING AND MULCH												
REMOVE TEMPORARY MEASURES												

NOTE: ABOVE SESC PRELIMINARY SCHEDULE IS TO BE COMPLETED AND SUBMITTED BY CONTRACTOR

REV#	DATE	DESCRIPTION	BY

500 St. Johns Highway, Suite 2500  
St. Johns, MI 48079  
313.981.2850  
www.wadetrtrim.com

City of St. Johns  
Fantasy Forest 2.0 Playground Improvements  
Playground Installation and Sitework

SOIL EROSION & SEDIMENTATION CONTROL PLAN

Fantasy Forest Playground Improvements

ISSUED FOR: DATE: BY:  
MDNR Review 8/19/24 CG  
90% Review 12/20/24 CG  
Bid 01/16/25 CG

JOB NO. CSJ200101D  
SHEET C-2.1

**MAINTENANCE NOTES**

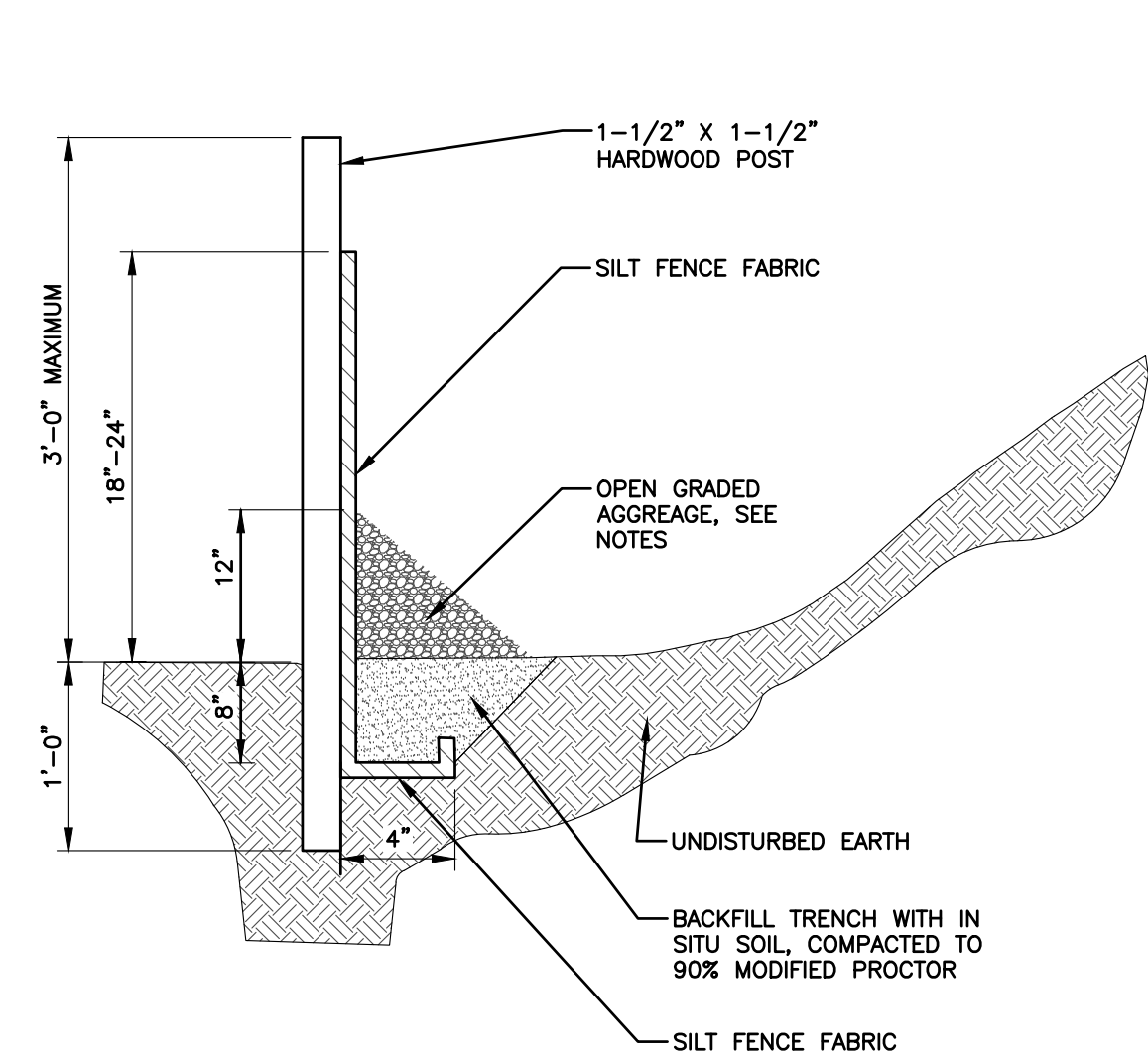
- ALL EROSION CONTROL MEASURES STATED ON THE SOIL EROSION CONTROL PLAN AND IN THE SWPPP SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK, OR FINAL STABILIZATION OF THE SITE. CONTRACTOR SHALL INCLUDE IN HIS BID, MAINTENANCE OF THE SOIL EROSION CONTROL DEVICES DURING THE ENTIRE PROJECT PERIOD.
- EROSION CONTROL DEVICES DAMAGED BY OTHERS WILL BE REPAIRED BY OTHERS.
- REFER TO MAINTENANCE REQUIREMENTS ASSOCIATED WITH EACH BMP DETAIL AND THE SEQUENCE OF CONSTRUCTION IN THE CONTRACT DOCUMENTS.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH THE FOLLOWING:
  - INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
  - ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
  - SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
  - CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
  - TEMPORARY PARKING AND STORAGE AREAS SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING AS CONDITIONS DEMAND.
  - OUTLET STRUCTURES IN SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

**SESC NOTES**

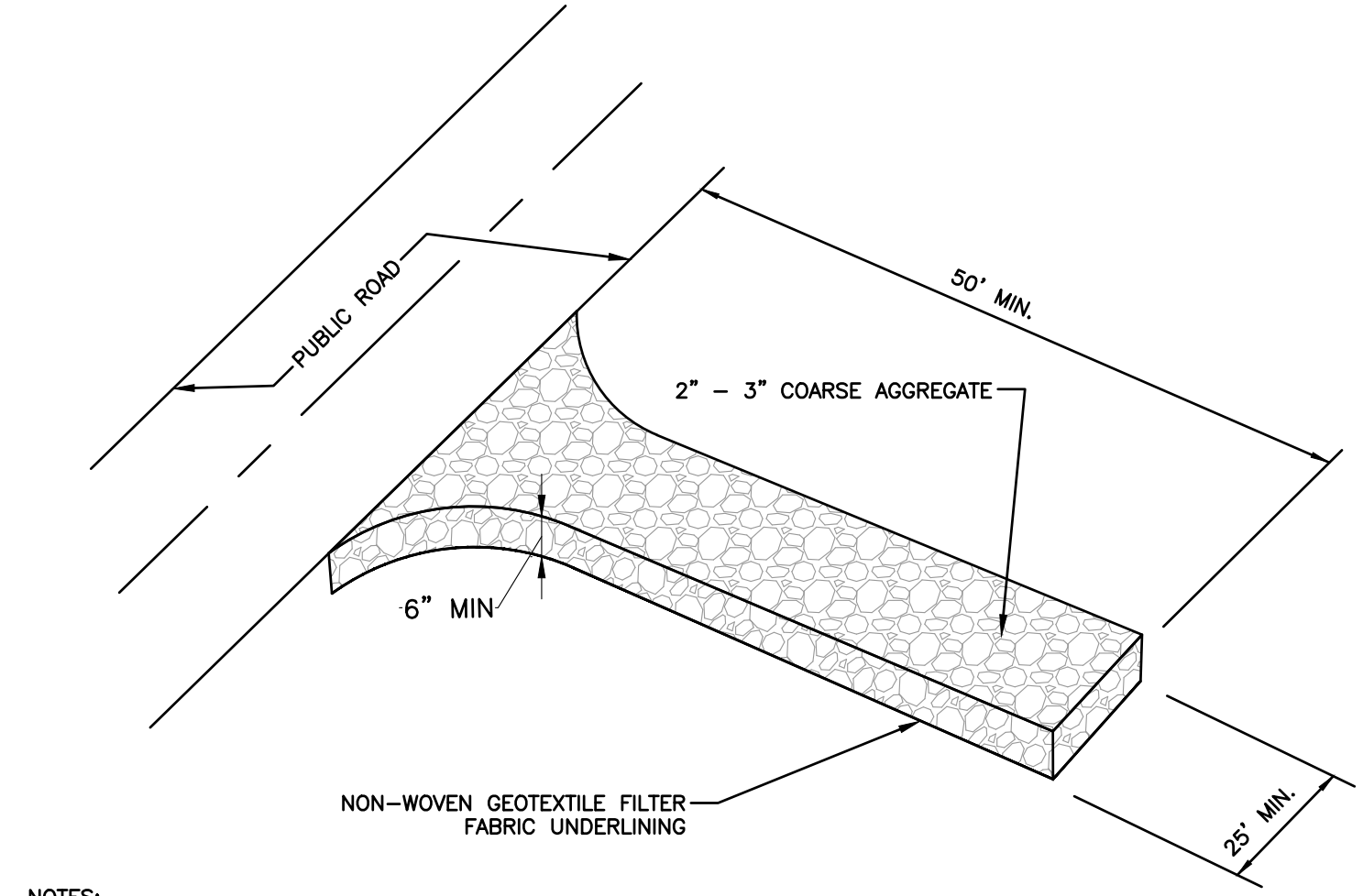
- CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMPs) AS REQUIRED BY THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). ADDITIONAL BMPs SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION IF DEEMED NECESSARY AND RESULTANT FROM THE CONTRACTOR'S OPERATIONS, METHODS, OR SEQUENCE OF CONSTRUCTION.
- BMPs AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, AND LOCAL REQUIREMENTS, OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL, OR AS REQUIRED BY THE GENERAL PERMIT.
- ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- INSTALL SILT FENCES, DITCH SEDIMENT TRAPS, CHECK DAMS, INLET FILTERS, TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXITS, TURBIDITY BARRIERS, EROSION CONTROL BLANKETS AND OTHER SOIL EROSION CONTROL DEVICES IN ACCORDANCE WITH THE DRAWINGS AND STORM WATER POLLUTION PREVENTION PLAN, OR AS MAY BE DICTATED BY SITE CONDITIONS IN ORDER TO MAINTAIN THE INTENT OF THE SPECIFICATIONS AND PERMITS.
- DEFICIENCIES OR CHANGES ON THE DRAWINGS OR SWPP SHALL BE CORRECTED OR IMPLEMENTED AS SITE CONDITIONS CHANGE. CHANGES DURING CONSTRUCTION SHALL BE NOTED IN THE SWPP AND POSTED ON THE DRAWINGS.
- OWNER HAS AUTHORITY TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS AND TO DIRECT CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES.
- REMOVE TEMPORARY CONTROL DEVICES AFTER PERMANENT MEASURE ARE ESTABLISHED. REMOVE AND REPLACE TEMPORARY CONTROL DEVICES IF THEY BECOME INEFFECTIVE AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL INCORPORATE PERMANENT EROSION CONTROL FEATURES, PAVING, PERMANENT SLOPE STABILIZATION, AND VEGETATION INTO PROJECT AT EARLIEST PRACTICAL TIME TO MINIMIZE NEED FOR TEMPORARY CONTROLS.
- CONTRACTOR SHALL PERMANENTLY SEED AND MULCH CUT SLOPES AS EXCAVATION PROCEEDS TO EXTENT CONSIDERED DESIRABLE AND PRACTICAL.
- CONTRACTOR SHALL PLACE ALL SOIL EROSION & SEDIMENTATION CONTROL MEASURES AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE APPROVED DETAILS.
- CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACK FILLING AND/OR GRADING OPERATIONS.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
- THE CONTRACTOR SHALL LIMIT THE USE OF HEAVY EQUIPMENT AND OTHER CONSTRUCTION EQUIPMENT ON THE UNPROTECTED SUBGRADE.
- CLEANUP WILL BE DONE IN A MANNER TO INSURE THAT EROSION CONTROL MEASURES ARE NOT DISTURBED.
- THE PROJECT WILL CONTINUALLY BE INSPECTED FOR SOIL EROSION AND SEDIMENTATION CONTROL COMPLIANCE. ALL DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR WITHIN 24 HOURS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR UPON ESTABLISHMENT OF PERMANENT CONTROL MEASURES AND AS DIRECTED BY LOCAL APPROVING AGENCY.
- CONSTRUCTION WILL NOT DISTURB MORE THAN 5 ACRES, THUS A NPDES STORM WATER DISCHARGE PERMIT **WILL NOT** BE REQUIRED.
- ALL ROADS WITHIN THE INFLUENCE OF THE PROJECT MUST REMAIN CLEAN AT ALL TIMES. CONTRACTOR SHALL SWEEP STREETS AS DIRECTED BY LOCAL MUNICIPALITY HAVING JURISDICTION OVER THE ROADWAY (I.E. TOWNSHIP, CITY, COUNTY, STATE, ETC.).
- BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE USED ON THIS PROJECT AS SHOWN ON THE PLANS AND AS DEFINED BY THE ENGINEER.
- THE CONTRACTOR SHALL SUBMIT A DETAILED SOIL EROSION AND SEDIMENTATION CONTROL PLAN AND OBTAIN AN ACT 451 PART 91, SOIL EROSION AND SEDIMENTATION CONTROL PERMIT. COPY TO BE PROVIDED TO THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE PAYMENT OF APPLICATION FEES, REVIEW FEES, INSPECTION FEES, BONDS, ETC. NO EARTH CHANGES OR EXCAVATION SHALL BE STARTED PRIOR TO THE ISSUANCE OF THIS PERMIT.
- TEMPORARY SEEDING SHALL BE MAINTAINED DURING THE PERIOD OF CONSTRUCTION UNTIL THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED.
- ALL DENSE GRADED AGGREGATE SHALL BE MDOT 6A OR AASHTO #57.

**SESC SPECIFICATIONS**

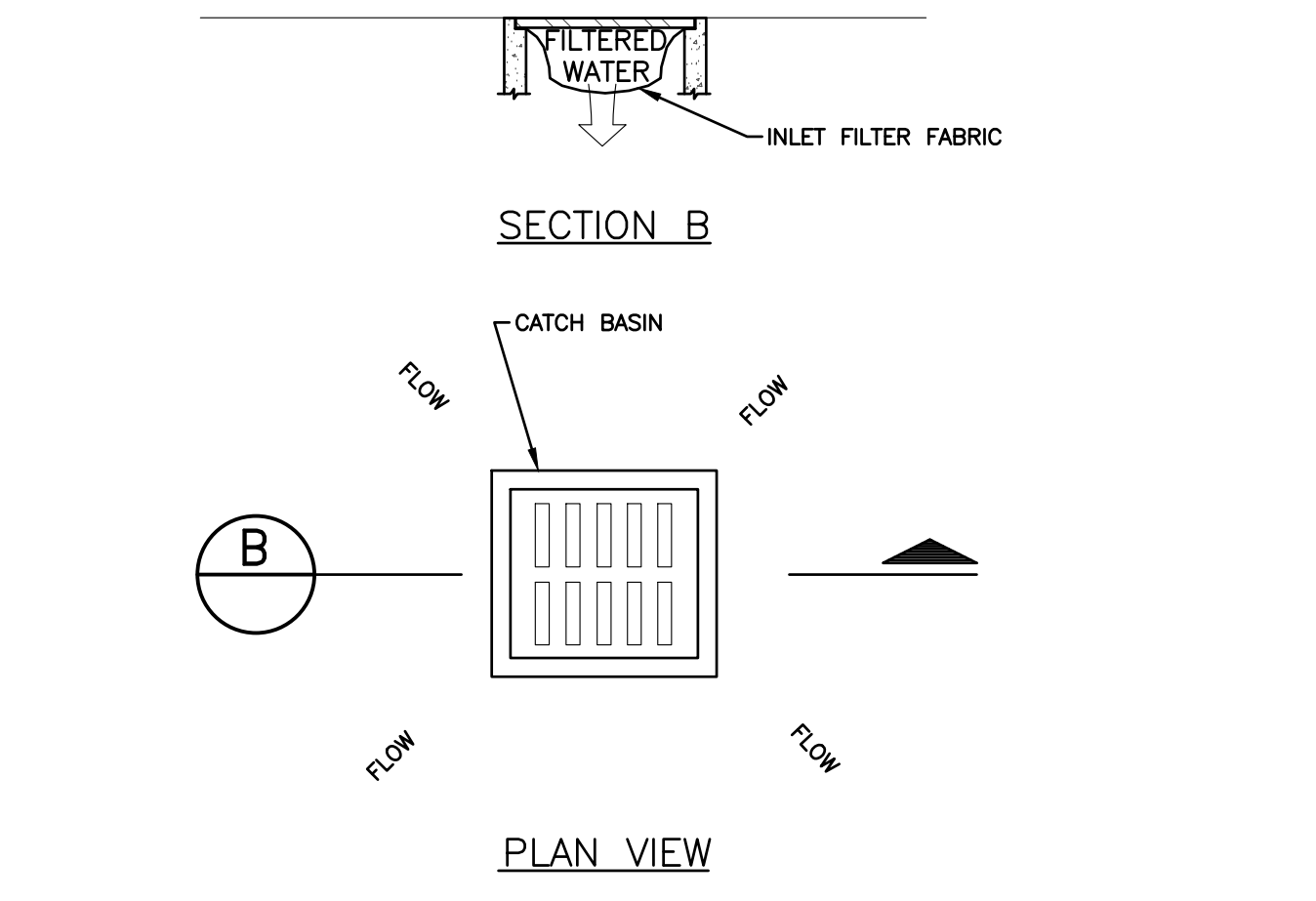
- SILT FENCE SHALL BE POLYPROPYLENE GEOTEXTILE FABRIC, RESISTANT TO COMMON SOIL CHEMICALS, MILDEW, AND INSECTS; NON-BIODEGRADABLE; IN LONGEST LENGTHS POSSIBLE; MEETING THE FOLLOWING REQUIREMENTS:
  - AVERAGE OPENING SIZE: 30 U.S. STD. SIEVE, MAXIMUM; ASTM D4751.
  - PERMITTIVITY:  $0.08 \text{ sec}^{-1}$  MINIMUM; ASTM D4491.
  - ULTRAVIOLET RESISTANCE: RETAINING AT LEAST 70% OF TENSILE STRENGTH; ASTM D4355 AFTER 500 HOURS EXPOSURE.
  - TENSILE STRENGTH: 100 LB-F (445 N) MINIMUM, IN CROSS-MACHINE DIRECTION; 124 LB-F (551 N) MINIMUM IN MACHINE DIRECTION; ASTM D4632.
  - ELONGATION: 15 TO 30%; ASTM D4632.
  - TEAR STRENGTH: 55 LB-F (244 N) MINIMUM; ASTM D4533.
- UV-STABILIZED, NON-WOVEN GEOTEXTILE BAG TO FILTER SEDIMENT FROM WATER PRIOR TO DISCHARGING. GEOTEXTILE FABRIC SHALL MEET THE FOLLOWING MINIMUM AVERAGE ROLL REQUIREMENTS:
  - TENSILE STRENGTH: 180 LB-F (200 N) MINIMUM; ASTM D4632
  - ELONGATION: 50 PERCENT MINIMUM; ASTM D4632
  - CBR PUNCTURE STRENGTH: 300 LB-F MINIMUM; ASTM D6241
  - TRAPEZOIDAL TEAR: 70 LB-F MINIMUM; ASTM D4533
  - FLOW RATE: 80 GAL/MIN/SF. MINIMUM; ASTM D4491
  - PERMITTIVITY:  $1.4 \text{ SEC}^{-1}$  MINIMUM; ASTM D4491
  - APPARENT OPENING SIZE: 80 U.S. STD. SIEVE MAXIMUM; ASTM D4751
  - UV-STABILITY: 70% RETAINED STRENGTH; ASTM D4355 AFTER 500 HOURS.
- EROSION CONTROL BLANKETS SHALL BE MACHINE PRODUCED BLANKET WITH A CONSISTENT THICKNESS OF EVENLY DISTRIBUTED STRAW OR COCONUT FIBER AS SPECIFIED. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE EROSION CONTROL BLANKET SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
  - DOUBLE NET 100% STRAW BLANKET.
  - TOP AND BOTTOM PHOTODEGRADABLE POLYPROPYLENE NETTING, 1.64 LBS./1,000 SFT. APPROXIMATE WEIGHT.
  - 100% AGRICULTURAL STRAW 0.5 LBS/SY.
  - STITCH SPACING: 1.5 INCHES (40 MM) ON CENTERS. PEGS SHALL BE 6-INCH (150 MM) LONG, HARDWOOD PEGS.
- FILTER FABRIC SHALL BE CONSTRUCTED OF 100% CONTINUOUS POLYESTER NEEDLE-PUNCHED NON-WOVEN ENGINEERING FABRIC. FILTER FABRIC SHALL BE FABRICATED TO PROVIDE A DIRECT FIT WITH THE DRAINAGE STRUCTURE COVER. FILTER FABRIC SHALL HAVE THE FOLLOWING MINIMUM PHYSICAL PROPERTIES:
  - TENSILE STRENGTH: 80 LB-F MINIMUM; ASTM D4632
  - ELONGATION: 50 PERCENT MINIMUM; ASTM D4632
  - CBR PUNCTURE STRENGTH: 300 LB-F MINIMUM; ASTM D6241
  - TRAPEZOIDAL TEAR: 70 LB-F MINIMUM; ASTM D4533
  - FLOW RATE: 80 GAL/MIN/SF. MINIMUM; ASTM D4491
  - PERMITTIVITY:  $1.4 \text{ SEC}^{-1}$  MINIMUM; ASTM D4491
  - APPARENT OPENING SIZE: 100 U.S. STD. SIEVE MAXIMUM; ASTM D4751
  - UV-STABILITY: 70% RETAINED STRENGTH; ASTM D4355 AFTER 500 HOURS.



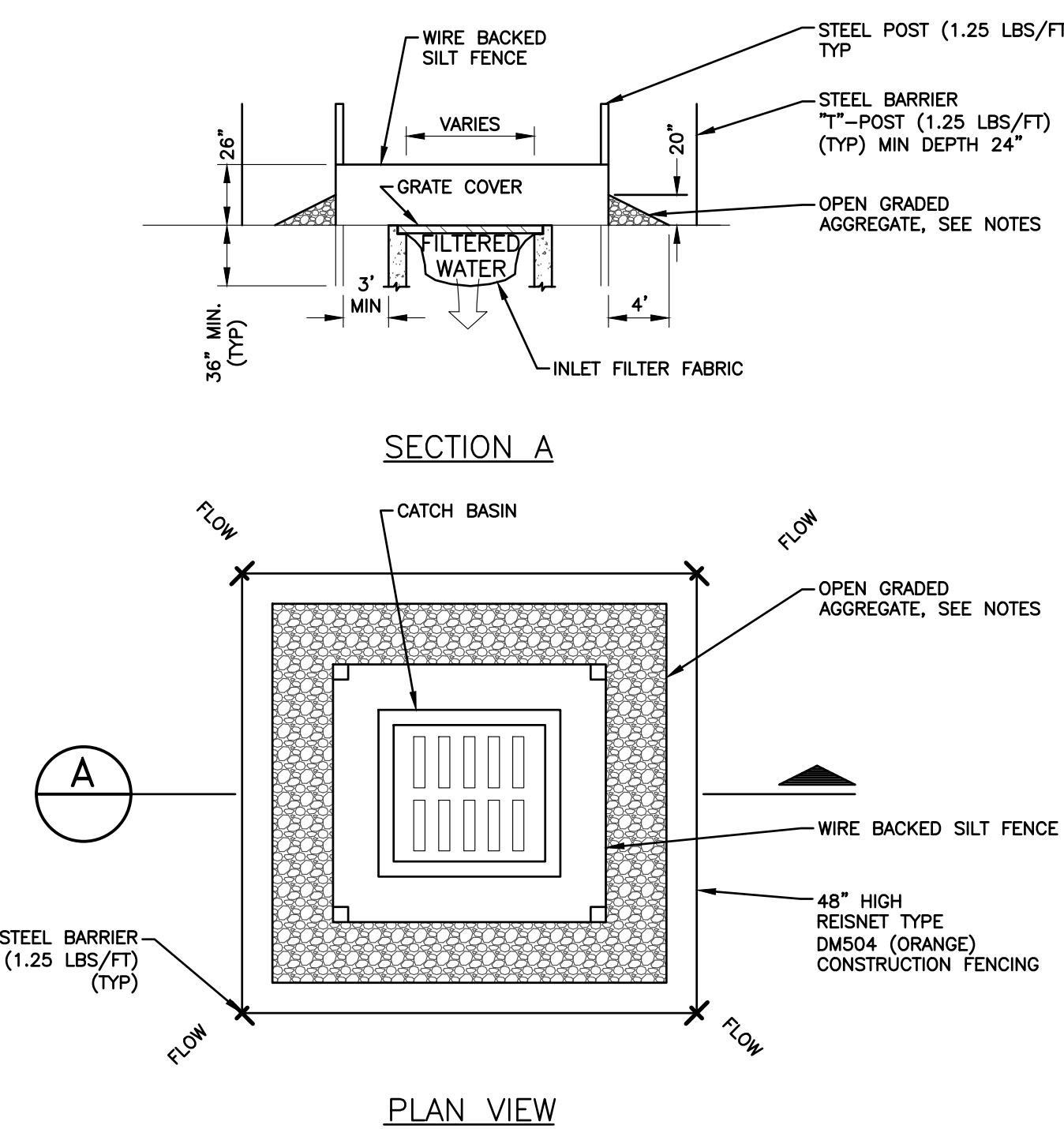
NOTES:  
 POST SPACING: 6-FOOT MAX  
 FABRIC: 36 INCHES IN WIDTH, MUST MEET ASTM D6461, 4 FT MINIMUM OVERLAP AT JOINTS (ENDS).  
 STONE: IF SILT FENCE IS DESIGNED AND UTILIZED AS A DIVERSION, PLACE OPEN GRADED AGGREGATE WASHED STONE 12 INCHES DEEP AT SILT FENCE AS SHOWN.  
 CURL EACH END OF THE SILT FENCE UPHILL IN A "J" PATTERN TO PREVENT RELEASE OF UNTREATED STORM FLOWS.



NOTES:  
 CONSTRUCTION  
 1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBTRUSIVE MATERIAL AND GRADE TO HAVE A SMOOTH, EVEN SURFACE.  
 2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.  
 3. PROVIDE POSITIVE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.  
 4. USE GEOTEXTILE FILTER FABRIC PER 01 57 13 TO IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.  
 MAINTENANCE  
 MAINTAIN THE CONSTRUCTION ENTRANCE IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

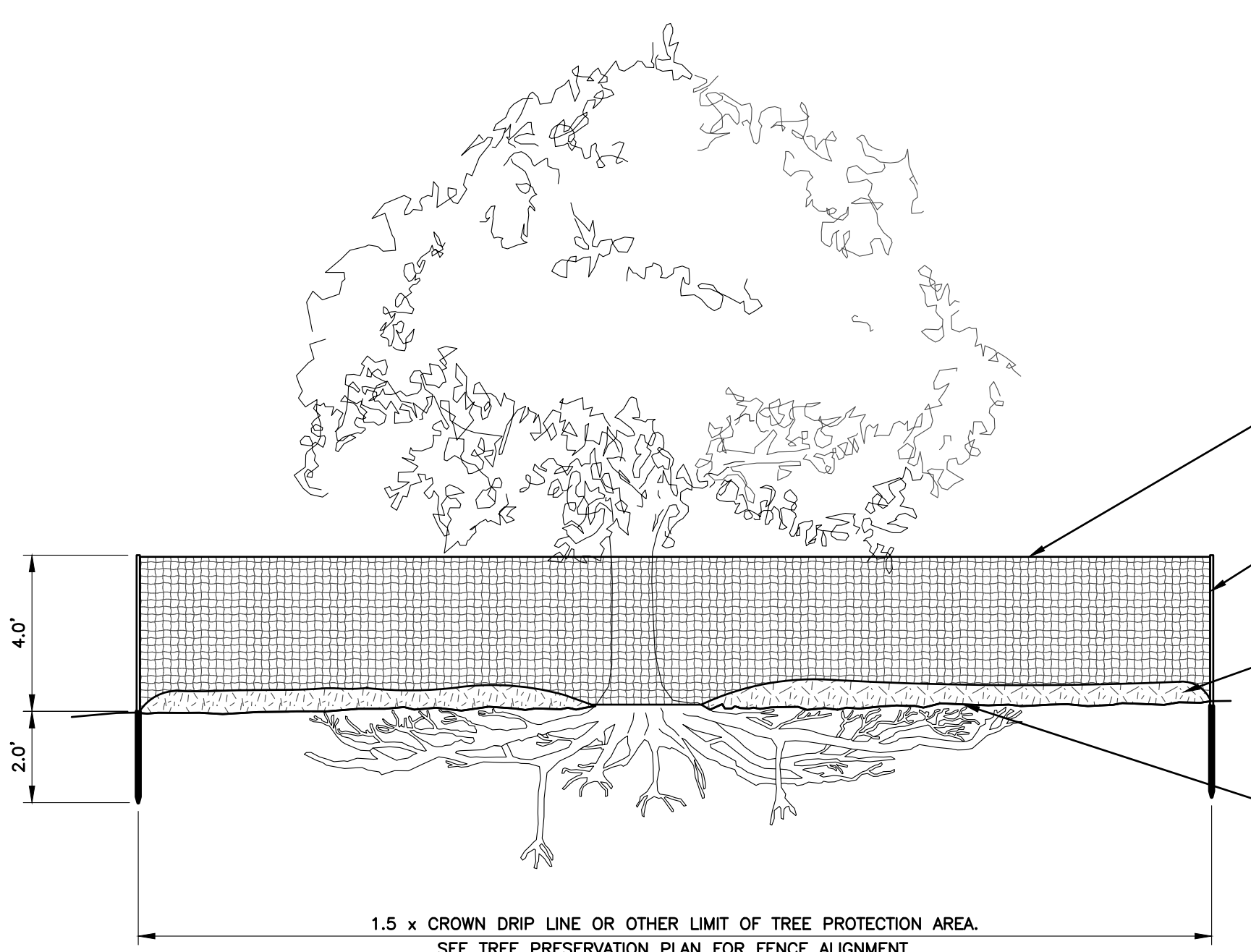


CATCH BASIN PROTECTION (TYPE II)  
 NOT TO SCALE



CATCH BASIN PROTECTION DETAIL (TYPE I)  
 NOT TO SCALE

**SILT FENCE DETAIL**  
 NOT TO SCALE



TREE PROTECTION FENCE DETAIL  
 NOT TO SCALE

- NOTES:
- NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
  - NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
  - APPROVED TREE PROTECTION SHALL BE ERECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
  - NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY DESIGNATED TREE TO REMAIN, INCLUDING, BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE.
  - GRADE CHANGES MAY NOT OCCUR WITHIN THE DRIP LINE OF PROTECTED TREES.
  - DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY REMAINING TREE.
  - ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
  - SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
  - TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
  - ROOT ZONES OF PROTECTED TREES SHOULD BE WELL MARKED WITH BRIGHT COLORS AND SURROUNDED WITH RIGIDLY STAKED FENCING.
  - THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
  - TREES TO BE REMOVED SHALL BE FELL AWAY FROM TREES TO BE SAVED.
  - GRUBBING OF UNDERSTORY VEGETATION IN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT GROUND LEVEL WITH A CHAIN SAW OR MINIMALLY WITH A HYDRO-AXE.
  - THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY IF ANY PROTECTED TREE IS DAMAGED OR REMOVED.

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE														
NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE														
CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
TEMPORARY CONSTRUCTION EXITS														
TEMPORARY CONTROL MEASURES														
SEDIMENT CONTROL BASINS														
STRIP & STOCKPILE TOPSOIL														
ROUGH GRADE														
STORM FACILITIES														
SITE CONSTRUCTION														
PERMANENT CONTROL STRUCTURES														
FOUNDATION / BUILDING CONSTRUCTION														
FINISH GRADING														
LANDSCAPING/SEED/FINAL STABILIZATION														

PROJECT MANAGER: C:\P\WORK\01473917\GEG-PLIS-SESC-DETAILS.DWG - C-2.2 - PLOTTED 1/15/2025 2:23 PM BY DENNIS KATE

REV#	DATE	DESCRIPTION	BY

500 Shady Grove, Suite 250  
 4000 W. 14th Ave. #400  
 313.981.8500  
 www.wadetrims.com

**WADE TRIM**

City of St. Johns  
**Fantasy Forest 2.0 Playground Improvements  
 Playground Installation and Sitework**

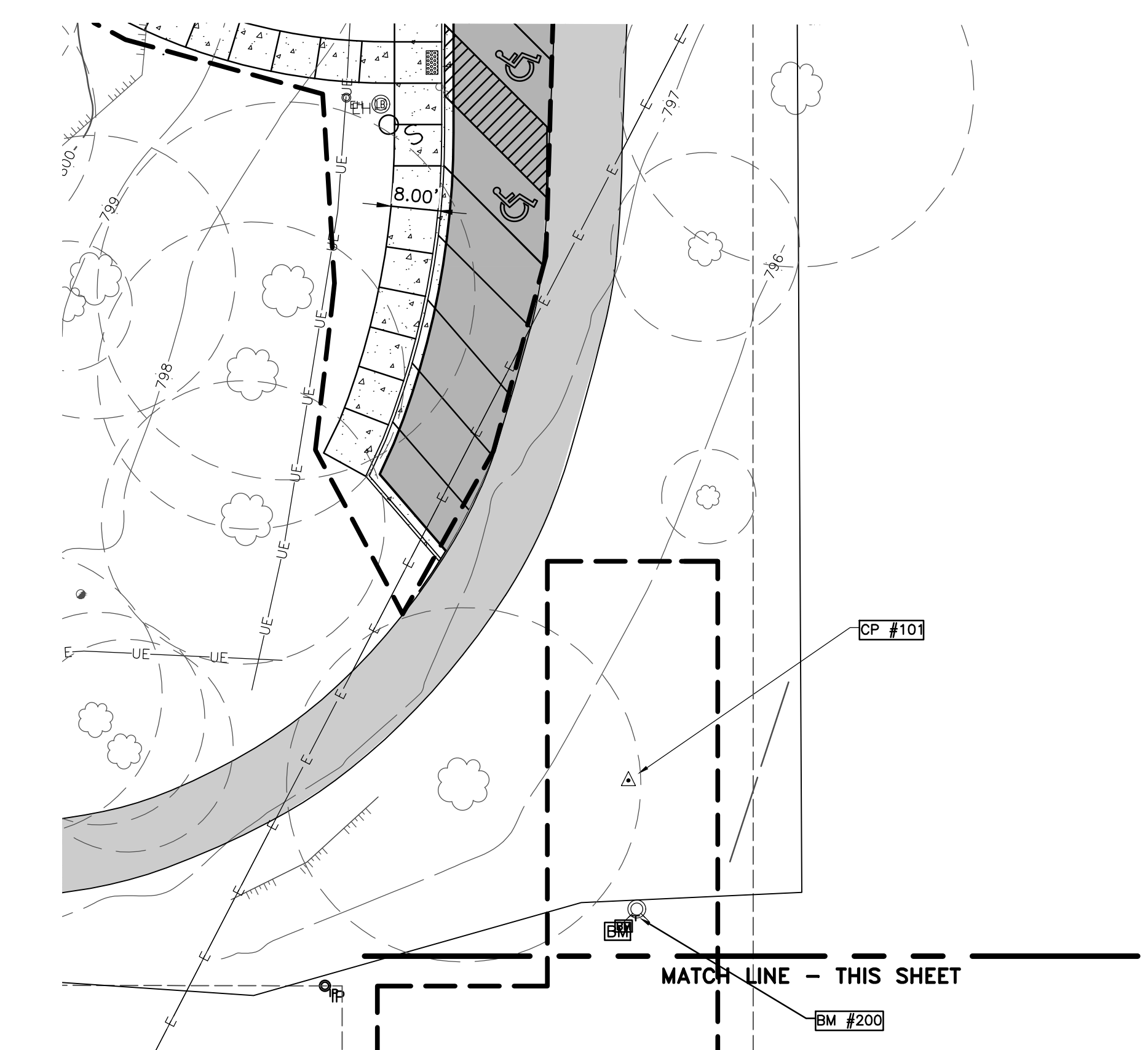
SOIL EROSION & SEDIMENTATION CONTROL DETAILS

ISSUED FOR: DATE: BY:  
 MNR Review 8/19/24 CD  
 90% Review 12/20/24 CD  
 Bid 01/16/25 CD

JOB NO. CSJ200101D  
 SHEET C-2.2

Fantasy Forest Playground Improvements

PROJECT MANAGER: C:\PW\_WORKS\101473917\CSP-PLT-SITE-PLAN.DWG - C-3.0 - PLOTTED 1/16/2025 3:09 PM BY DENNIS, KATE



- NOTES:
- CONTRACTOR SHALL COORDINATE WITH PLAYGROUND SUPPLIER, GREAT LAKES RECREATION, TO ENSURE EFFICIENT AND ORDERLY INSTALLATION OF PLAY EQUIPMENT AND SAFETY SURFACING. GREAT LAKES RECREATION CONTACT: STEPHANIE HABERS, STEPHANIE@GLREC.COM
  - CONTRACTOR SHALL COORDINATE WITH SUPPLIER OF ELECTRICAL, VIDEO, AND LIGHTING INSTALLATION, ESM. ESM CONTACT: RICH KASSUBA, RKASSUBA@GMAIL.COM.
  - CONTRACTOR SHALL COORDINATE SEQUENCE OF CONSTRUCTION FOR BITUMINOUS PARKING LOT WITH CITY OF ST. JOHNS DIRECTOR OF PUBLIC SERVICES JUSTIN SMITH, JSMITH@STJOHNSMI.GOV. CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT AND COMPACTION OF BASE AND SUBBASE. CITY STAFF AND OTHER CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT OF HMA COURSES.

ISSUED FOR: Bid	DATE: 01/16/25	BY: CD
90% Review	12/20/24	CD
MDNR Review	8/19/24	CD

JOB NO. CSJ200101D

SHEET C-3.0

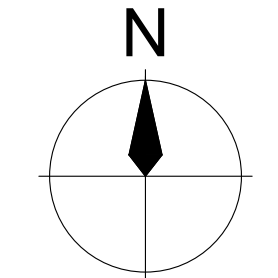
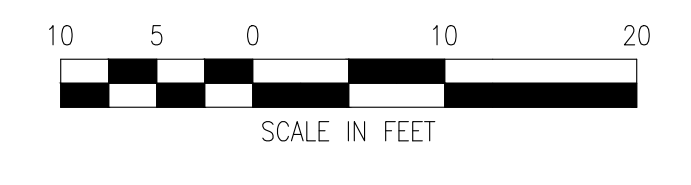
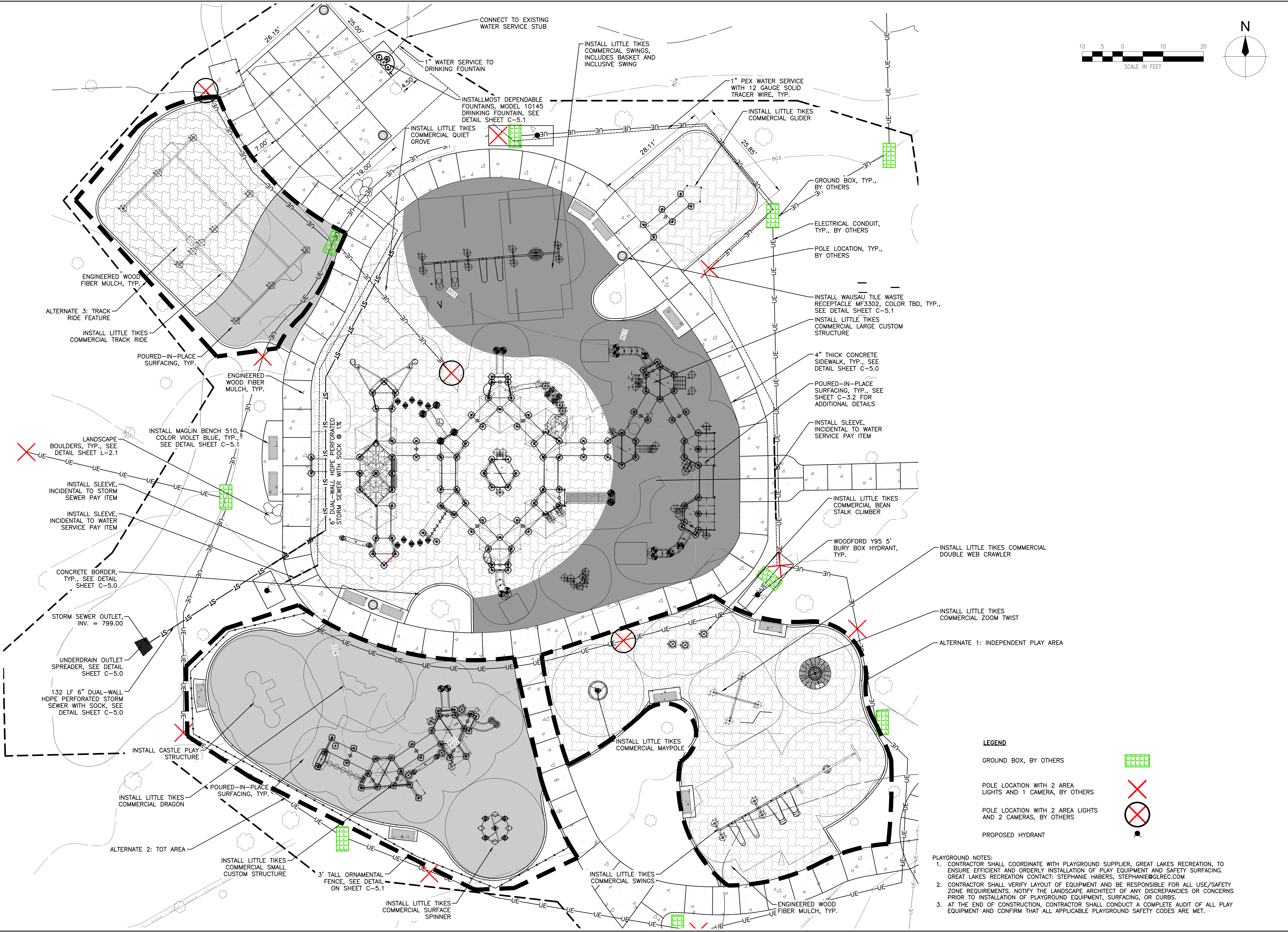
City of St. Johns  
**Fantasy Forest 2.0 Playground Improvements**  
**Playground Installation and Sitework**  
 SITE PLAN LAYOUT

WADE TRIM  
 800 General Avenue, Suite 2000  
 St. Johns, Michigan 48086  
 313.961.9500  
 www.wadetrिम.com

REV#	DATE	DESCRIPTION	BY

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PROJECT MANAGER: C:\PW\_WORK\101473817\CSP-PLTS-SITE-PLAN.DWG - C-3.1 - PLOTTED 1/15/2025 2:23 PM BY DENNIS, KATE  
 FIELD BOOK INFORMATION: -



**LEGEND**

- GROUND BOX, BY OTHERS
- POLE LOCATION WITH 2 AREA LIGHTS AND 1 CAMERA, BY OTHERS
- POLE LOCATION WITH 2 AREA LIGHTS AND 2 CAMERAS, BY OTHERS
- PROPOSED HYDRANT

- PLAYGROUND NOTES:**
- CONTRACTOR SHALL COORDINATE WITH PLAYGROUND SUPPLIER, GREAT LAKES RECREATION, TO ENSURE EFFICIENT AND ORDERLY INSTALLATION OF PLAY EQUIPMENT AND SAFETY SURFACING. GREAT LAKES RECREATION CONTACT: STEPHANIE HABERS, STEPHANIE@GLREC.COM
  - CONTRACTOR SHALL VERIFY LAYOUT OF EQUIPMENT AND BE RESPONSIBLE FOR ALL USE/SAFETY ZONE REQUIREMENTS. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR CONCERNS PRIOR TO INSTALLATION OF PLAYGROUND EQUIPMENT, SURFACING, OR CURBS.
  - AT THE END OF CONSTRUCTION, CONTRACTOR SHALL CONDUCT A COMPLETE AUDIT OF ALL PLAY EQUIPMENT AND CONFIRM THAT ALL APPLICABLE PLAYGROUND SAFETY CODES ARE MET.

	BY
	DESCRIPTION
	DATE
	REV#

500 Grandview Avenue, Suite 2000  
 313.961.3656  
 www.wadetrims.com

**City of St. Johns**  
**Fantasy Forest 2.0 Playground Improvements**  
**Playground Installation and Sitework**  
 SITE PLAN - PLAYGROUND ENLARGEMENT

ISSUED FOR:	DATE:	BY:
MDNR Review	8/19/24	CD
90% Review	12/20/24	CD
Bid	01/16/25	CD

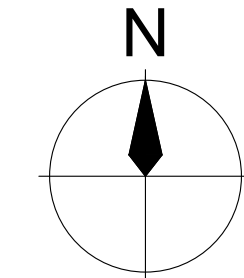
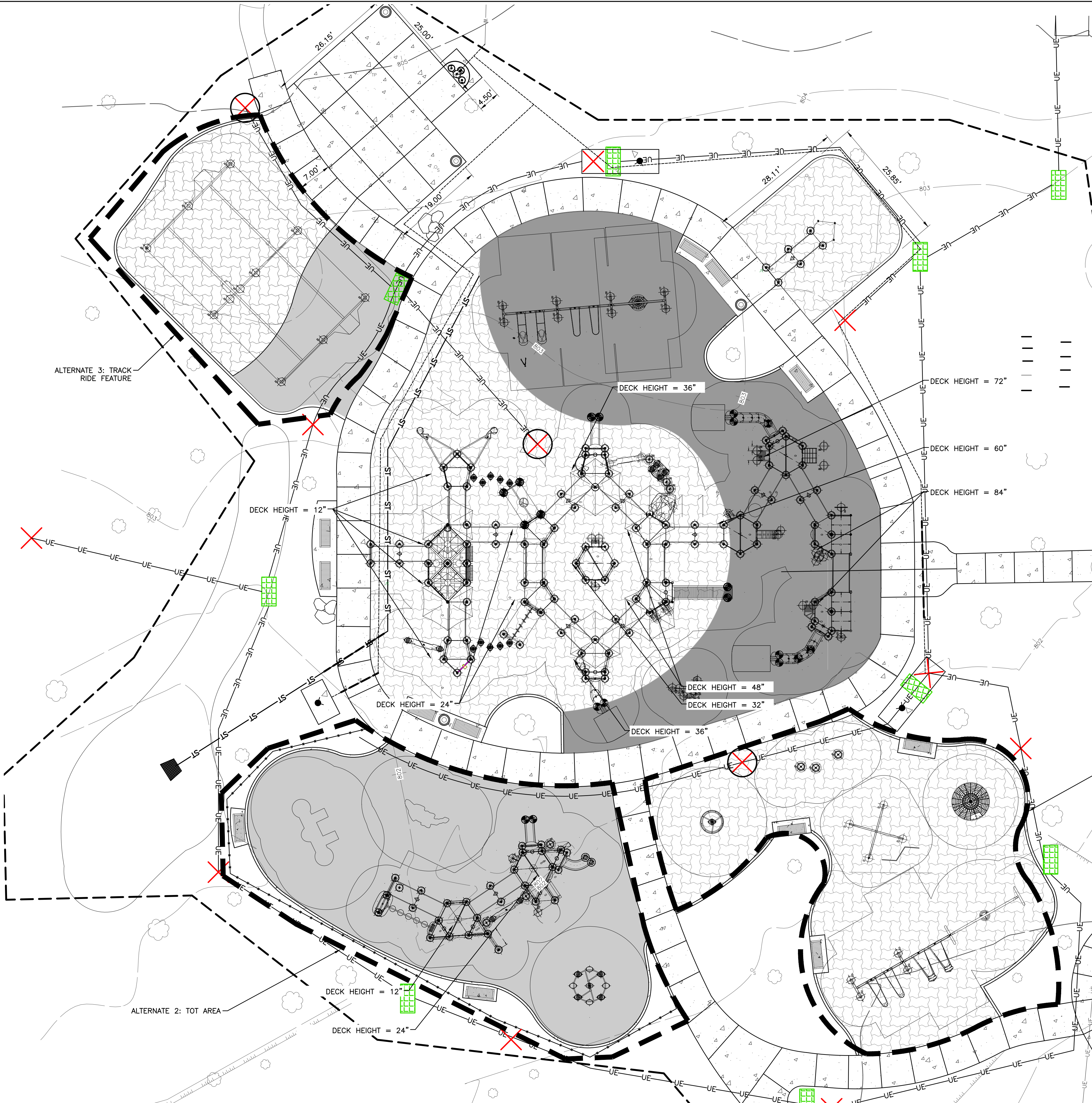
JOB NO. CSJ200101D

SHEET C-3.1

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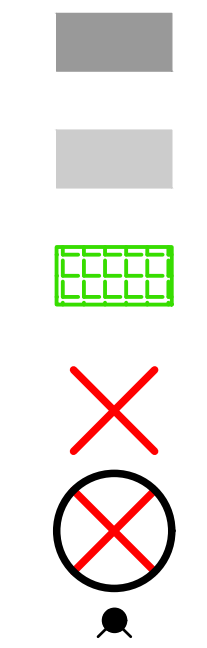


PROJECT MANAGER: C:\PW\_MWORKS\01473917\CSP-PLTS-SITE\_PLAN.DWG - C-3.2 - PLOTTED 1/15/2025 2:24 PM BY DENNIS, KATE



**LEGEND**

- POURED IN PLACE SURFACING, "PURPLE" COLOR, TYP.
- POURED IN PLACE SURFACING, "AZURE" COLOR, TYP.
- GROUND BOX, BY OTHERS
- POLE LOCATION WITH 2 AREA LIGHTS AND 1 CAMERA, BY OTHERS
- POLE LOCATION WITH 2 AREA LIGHTS AND 2 CAMERAS, BY OTHERS
- PROPOSED HYDRANT



REV#	DATE	DESCRIPTION	BY

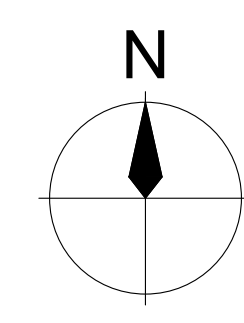
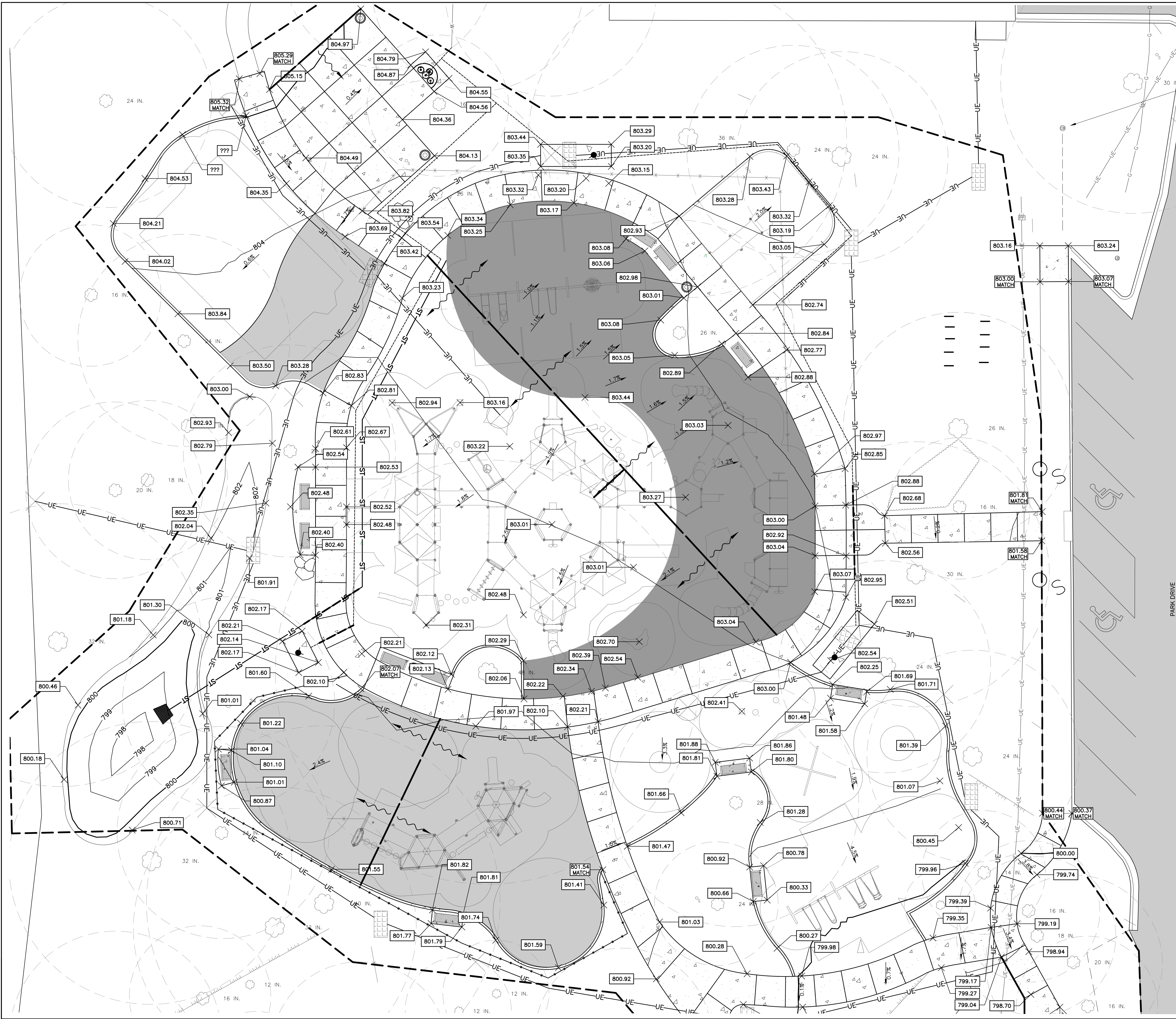
500 Grandd Avenue, Suite 2000  
 313.961.3500  
 www.wadetrिम.com

**City of St. Johns**  
**Fantasy Forest 2.0 Playground Improvements**  
**Playground Installation and Sitework**  
 SITE PLAN - POURED IN PLACE ENLARGEMENT

ISSUED FOR: MNR Review	DATE: 8/19/24	BY: CD
90% Review	12/20/24	CD
Bid	01/16/25	CD
JOB NO.	CSJ200101D	
SHEET	C-3.2	

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PROJECT MANAGER: C:\PW\_MORRIS\141473917\CGP-PLTS-GRADINGPLANS.DWG - C-4.0 - PLOTTED: 1/15/2025 2:24 PM BY DENNIS, KATIE



**LEGEND**

- RIDGE LINE, SHOWN FOR REFERENCE
- GENERAL DRAINAGE DIRECTION, SHOWN FOR REFERENCE

REV#	DATE	DESCRIPTION	BY

500 Grandd Avenue, Suite 2000  
313.961.3550  
www.wadetrim.com

WADE TRIM

City of St. Johns  
Fantasy Forest 2.0 Playground Improvements  
Playground Installation and Sitework

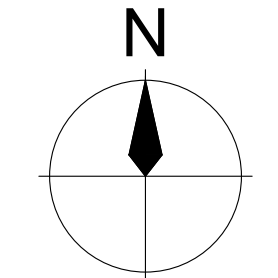
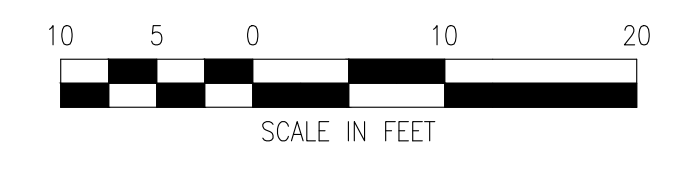
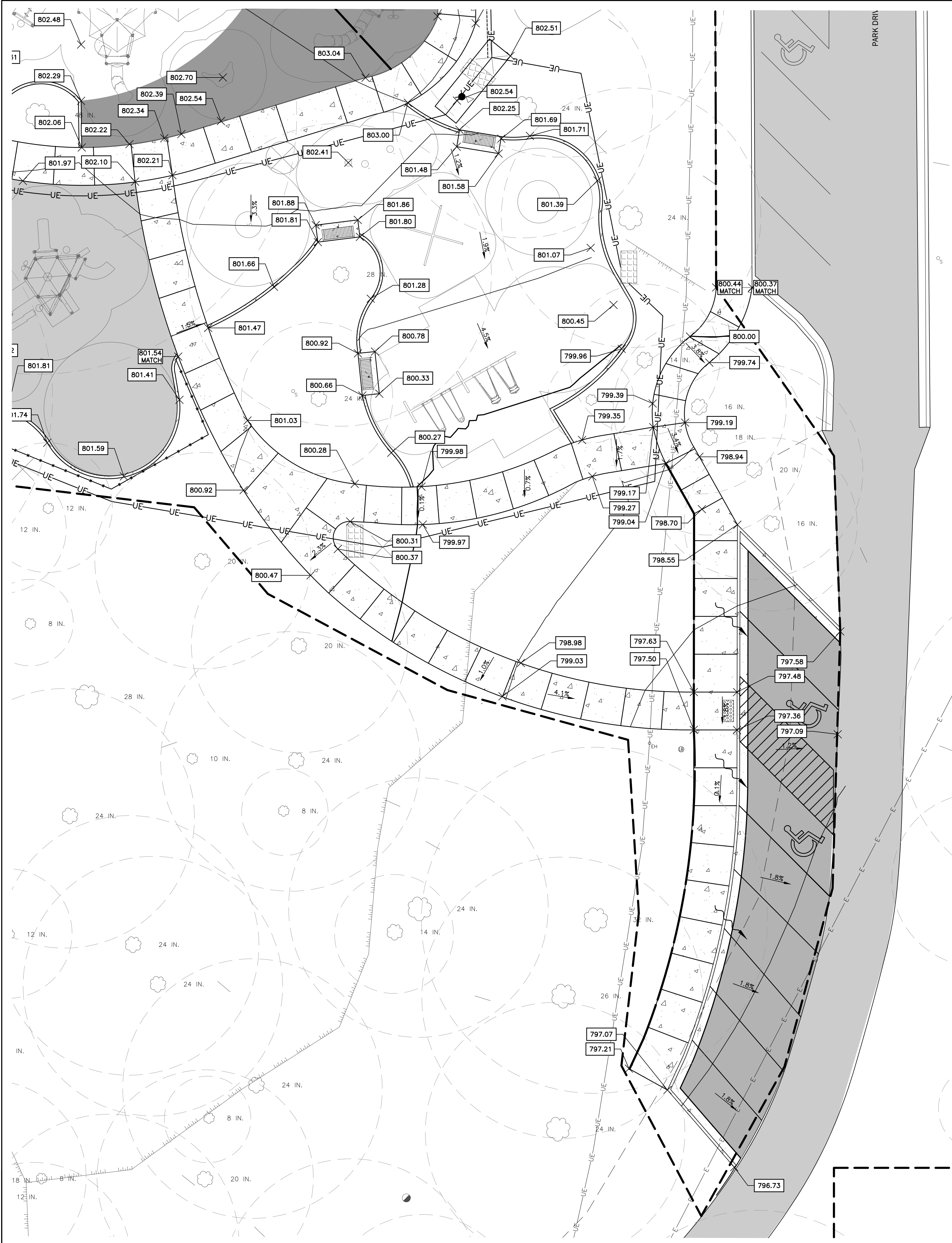
GRADING PLAN - NORTH

ISSUED FOR: DATE: BY:  
MNR Review 8/19/24 CD  
90% Review 12/20/24 CD  
Bid 01/16/25 CD

JOB NO. CSJ200101D  
SHEET C-4.0

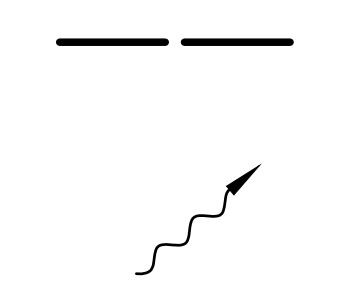
Fantasy Forest Playground Improvements

PROJECT MANAGER: C:\PW\_MWORKS\141473817\CGP-FITS-GRADINGPLANS.DWG - C-4.1 - PLOTTED: 1/15/2025 2:24 PM BY DENNIS, KATIE



**LEGEND**

- RIDGE LINE, SHOWN FOR REFERENCE
- GENERAL DRAINAGE DIRECTION, SHOWN FOR REFERENCE



REV#	DATE	DESCRIPTION	BY

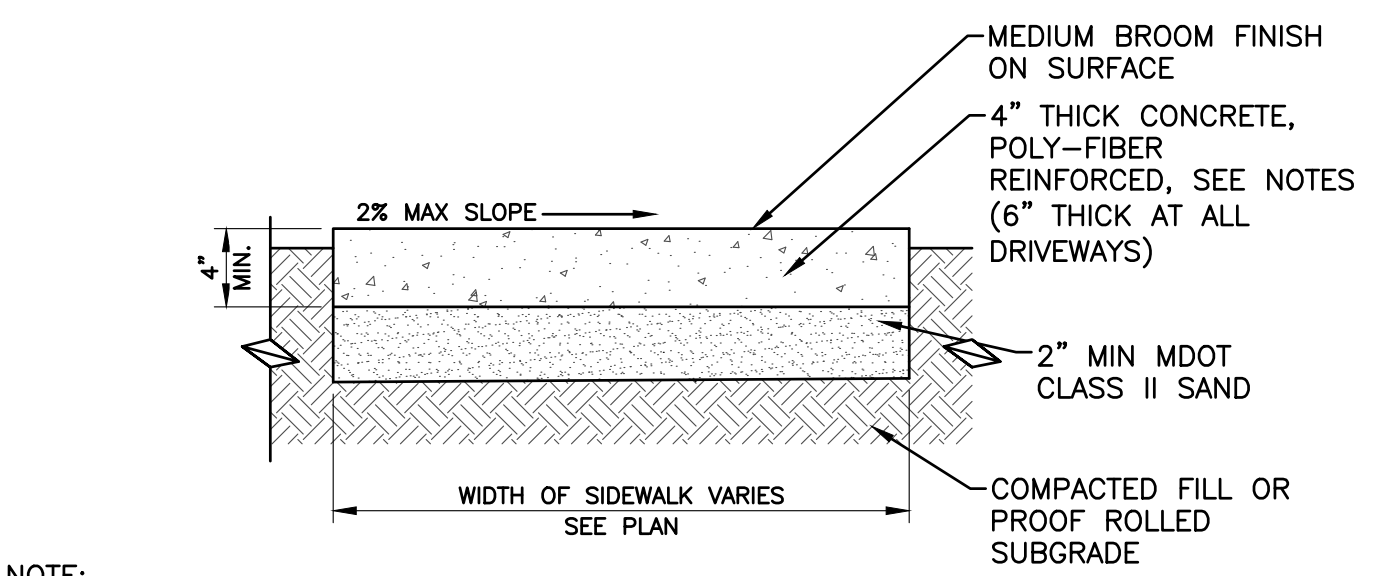
200 General Avenue, Suite 2000  
 313.961.8500  
 www.wadetrim.com

**City of St. Johns  
 Fantasy Forest 2.0 Playground Improvements  
 Playground Installation and Sitework**

GRADING PLAN - SOUTH

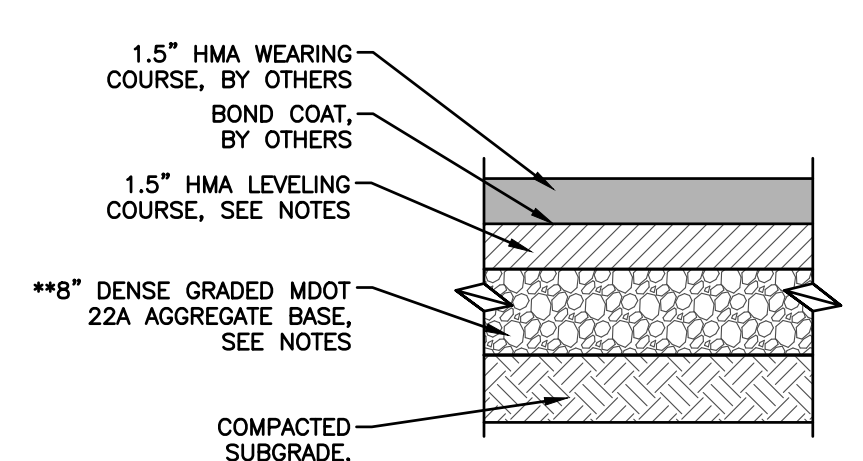
ISSUED FOR: 90% Bid	DATE: 12/20/24	BY: CD
JOB NO. CSJ200101D	SHEET C-4.1	

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NOTE: PROVIDE EXPANSION JOINTS IN NEW CONCRETE WALKS AND CURBS AT MAXIMUM 30' SPACING. CONTROL JOINTS SHALL BE SHOWN ON PLANS. PROVIDE EXPANSION JOINTS WHERE NEW CONCRETE MEETS EXISTING CONCRETE OR OTHER STRUCTURES.

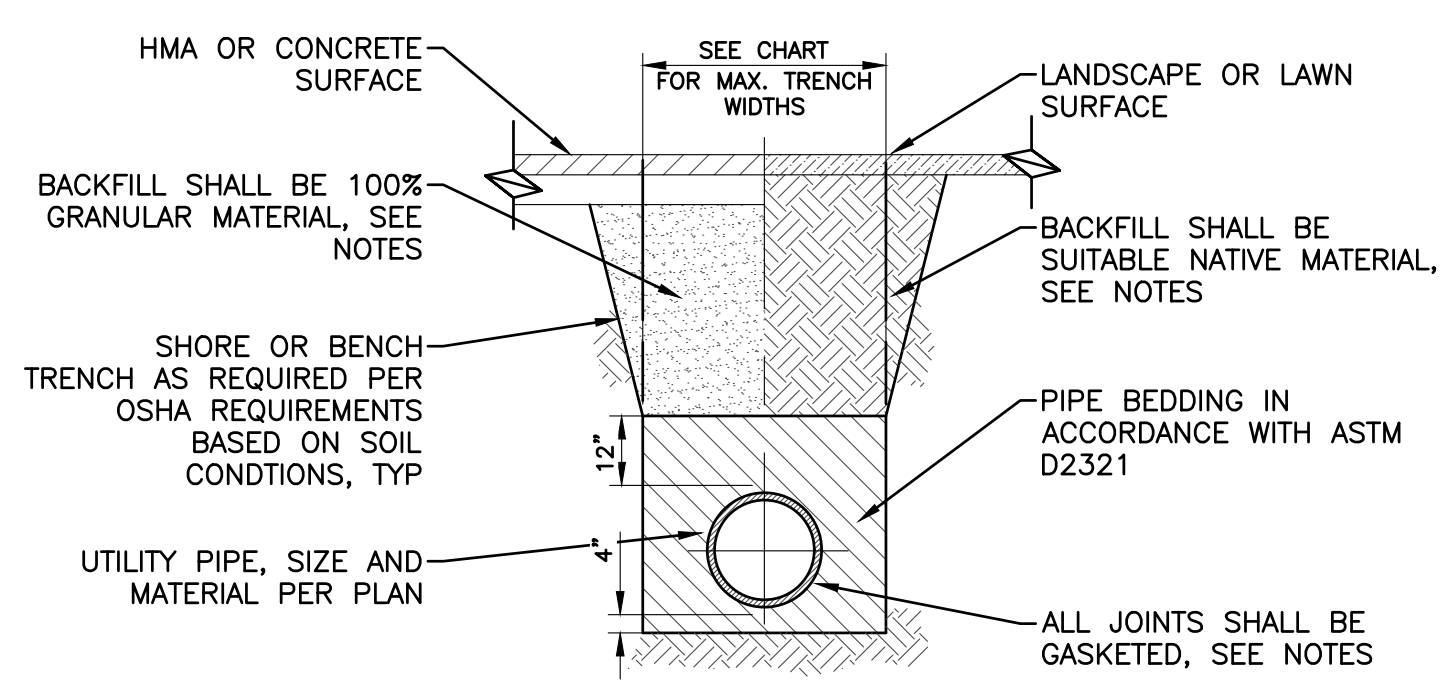
**4" CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE



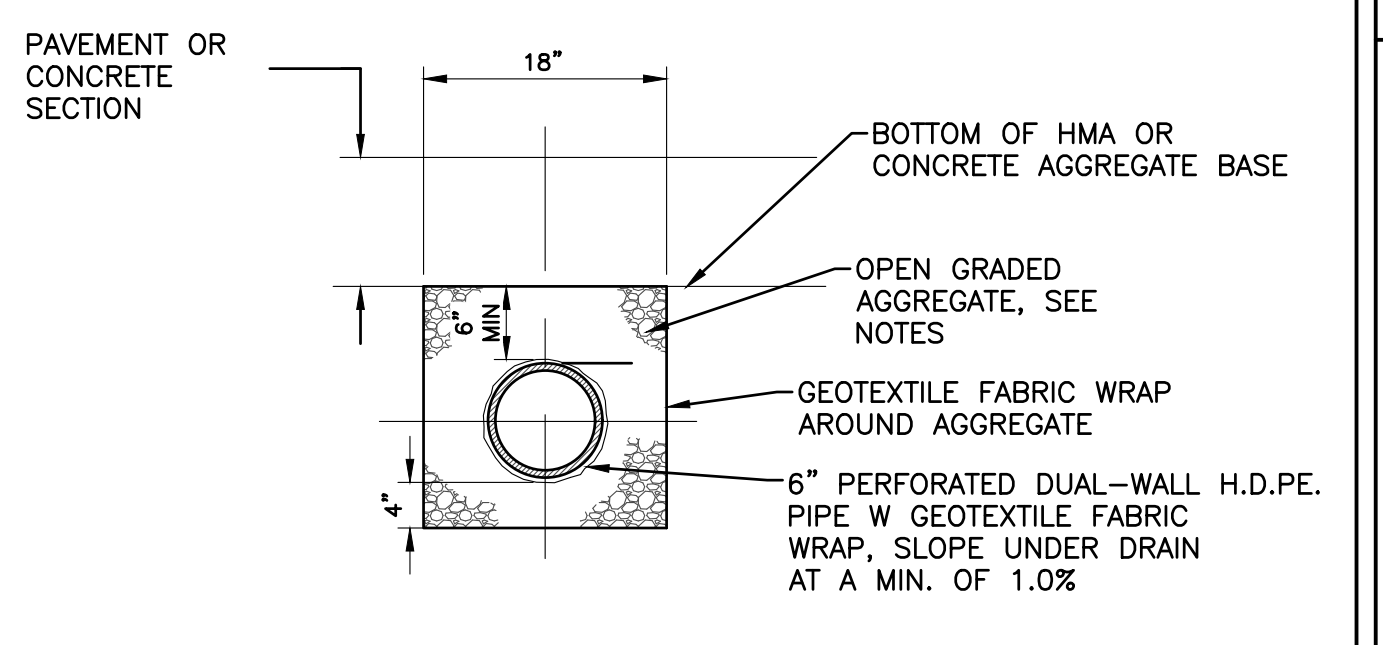
NOTE:  
\*\* 1. CONTRACTOR CAN USE EXISTING CRUSHED SITE CONCRETE/ASPHALT AS AGGREGATE BASE MATERIAL (CONTRACTOR SHALL INCREASE BASE THICKNESS BY 25%)  
2. CONTRACTOR WILL COMPACT SUBGRADE AND PLACE AND COMPACT AGGREGATE BASE. HMA PAVEMENT WILL BE INSTALLED BY OTHERS AND COORDINATED WITH OWNER.

**STANDARD HMA PAVEMENT DETAIL**  
NOT TO SCALE

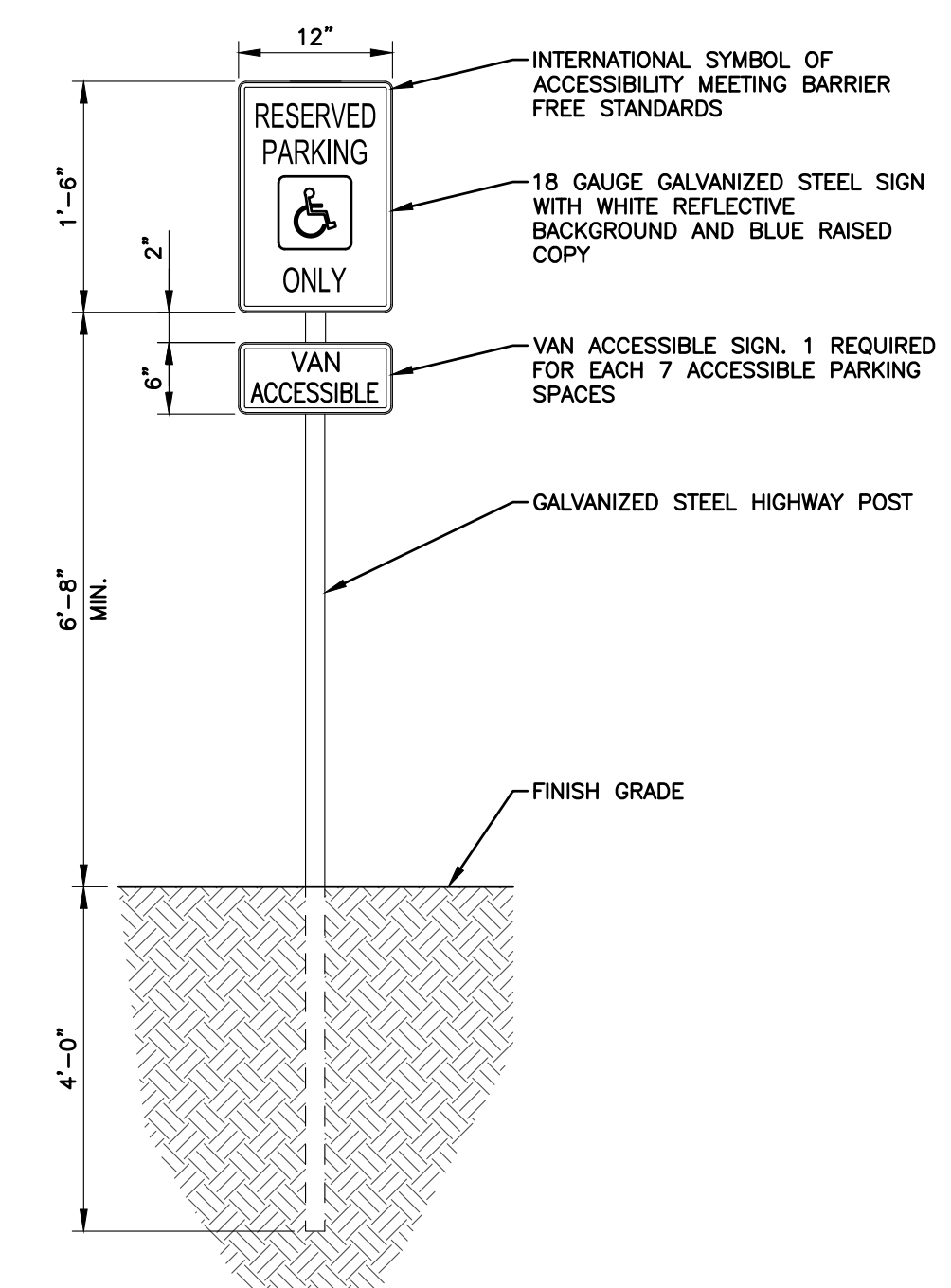
TRENCH WIDTHS
MAX WIDTH OF TRENCH 12" ABOVE TOP OF PIPE
6" THRU 12" PIPE - 30" WIDE
15" THRU 36" PIPE - O.D. + 16"
42" THRU 60" PIPE - O.D. + 20"
OVER 60" PIPE - O.D. + 24"



**TYPICAL TRENCH DETAIL**  
NOT TO SCALE

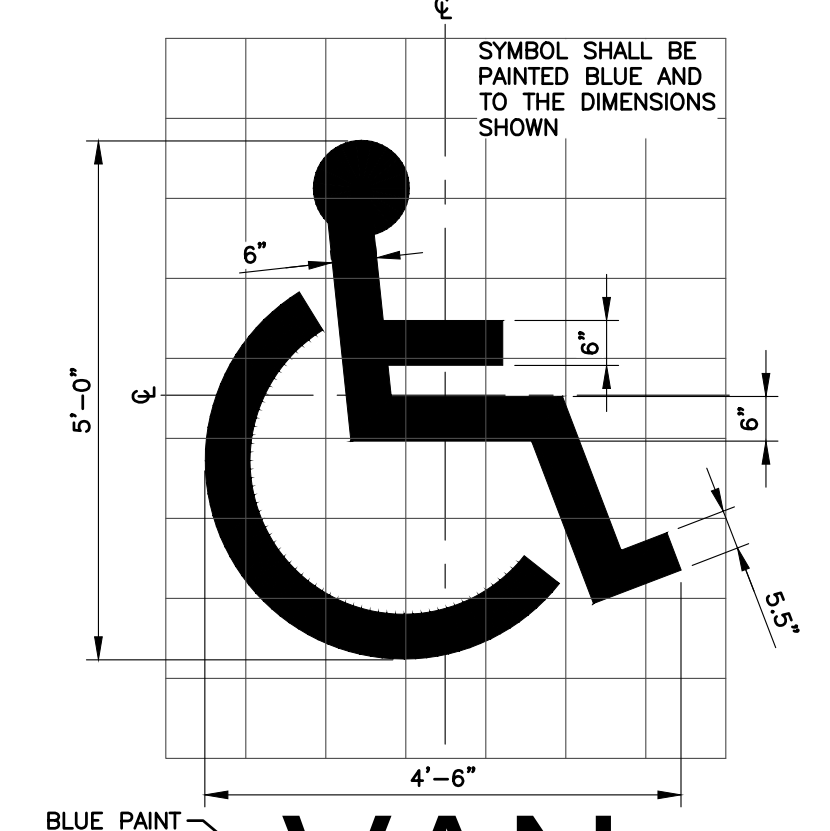


**UNDERDRAIN DETAIL**  
NOT TO SCALE

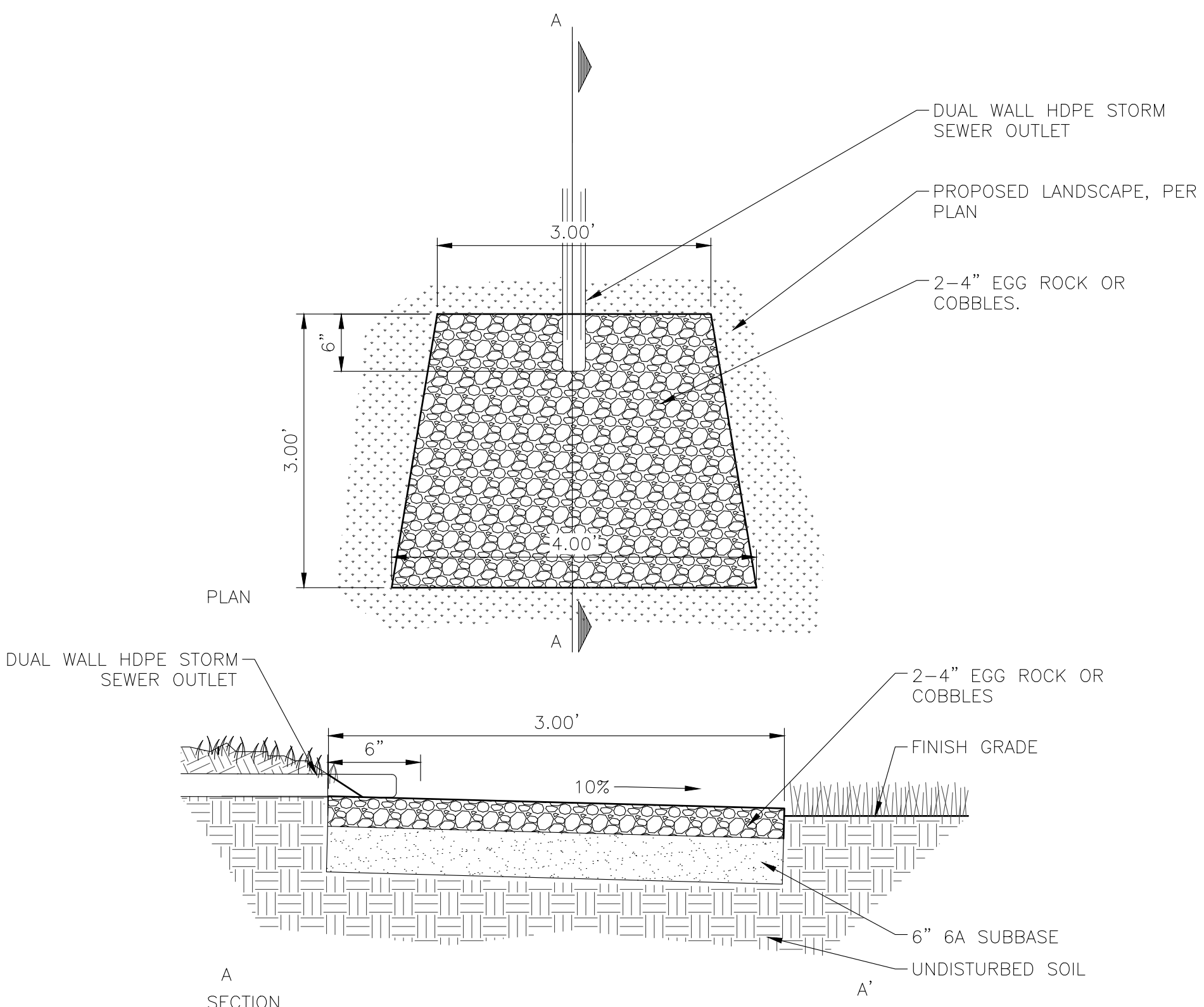


ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

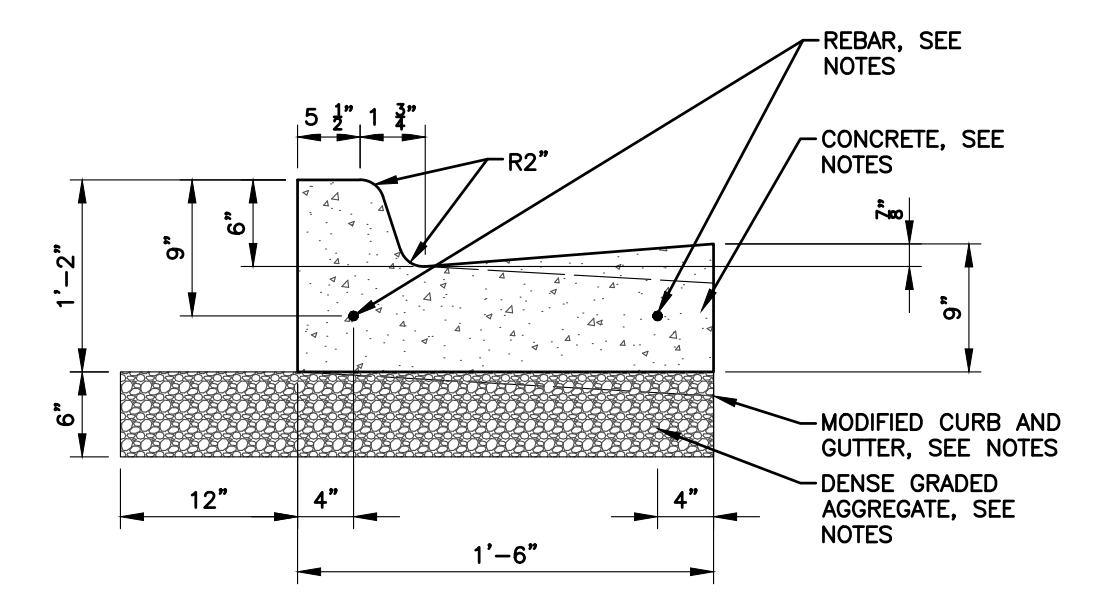
**BARRIER FREE SIGN DETAIL**  
NOT TO SCALE



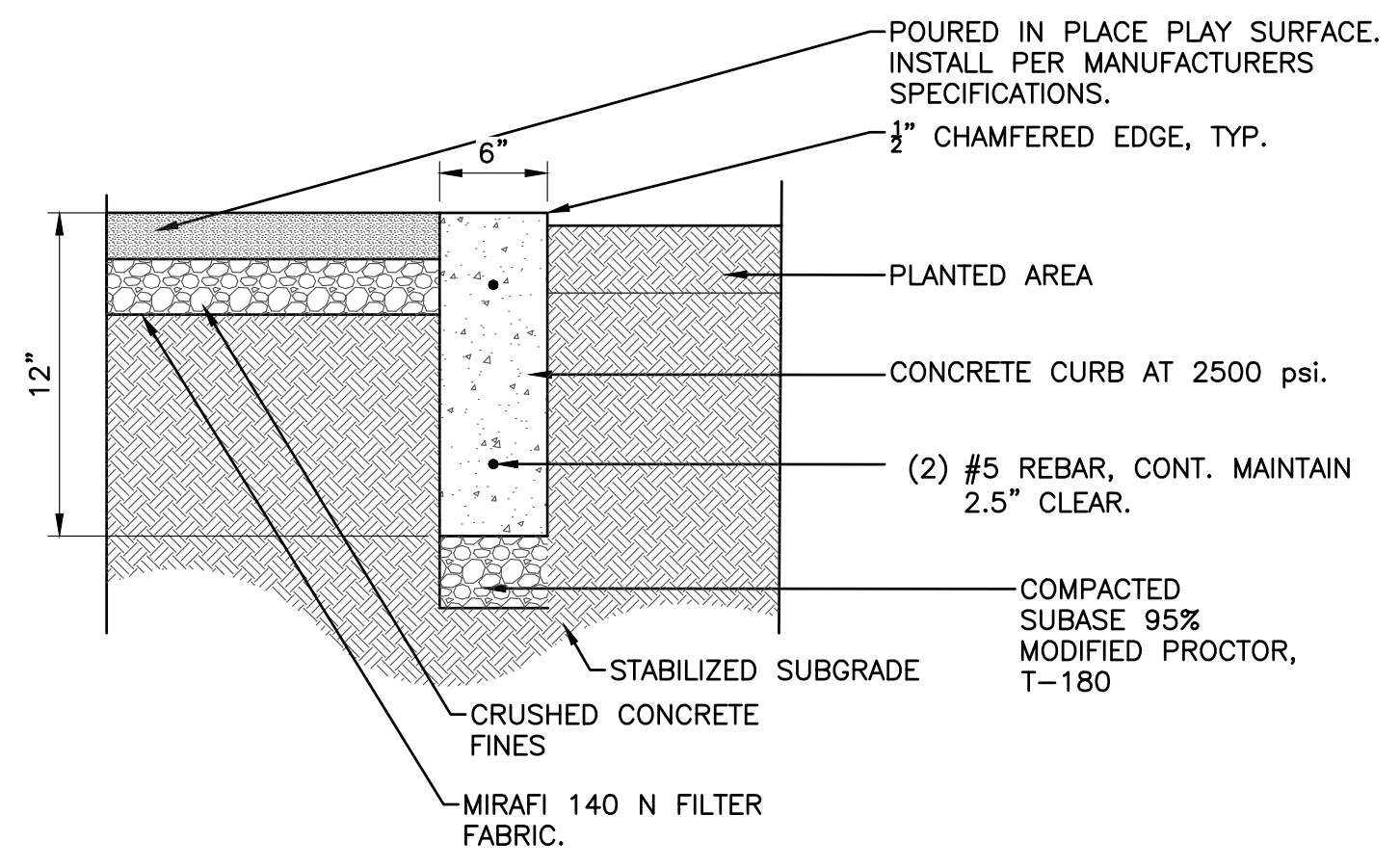
**BARRIER FREE SYMBOL DETAIL**  
NOT TO SCALE



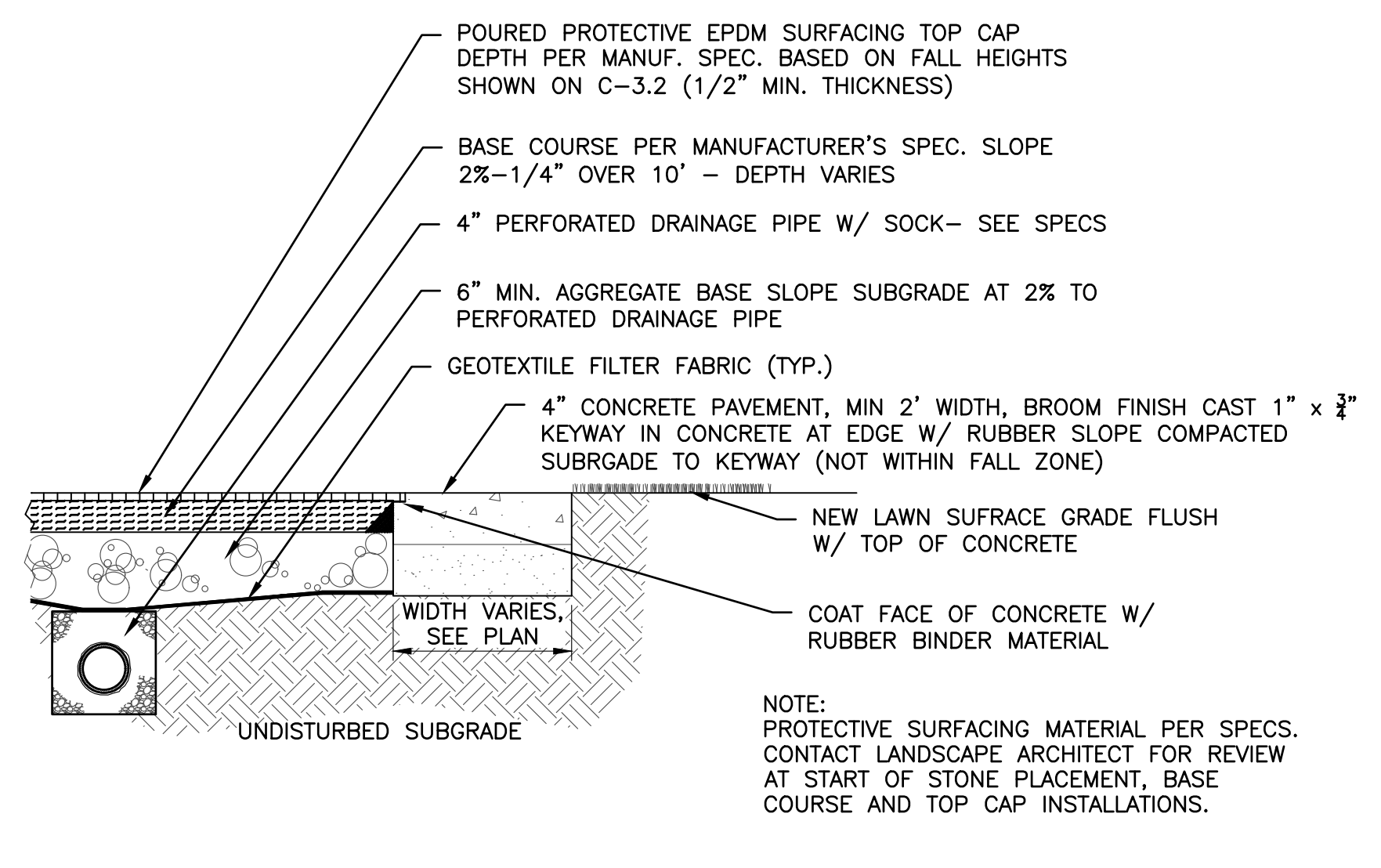
**UNDERDRAIN OUTLET SPREADER DETAIL**  
NOT TO SCALE



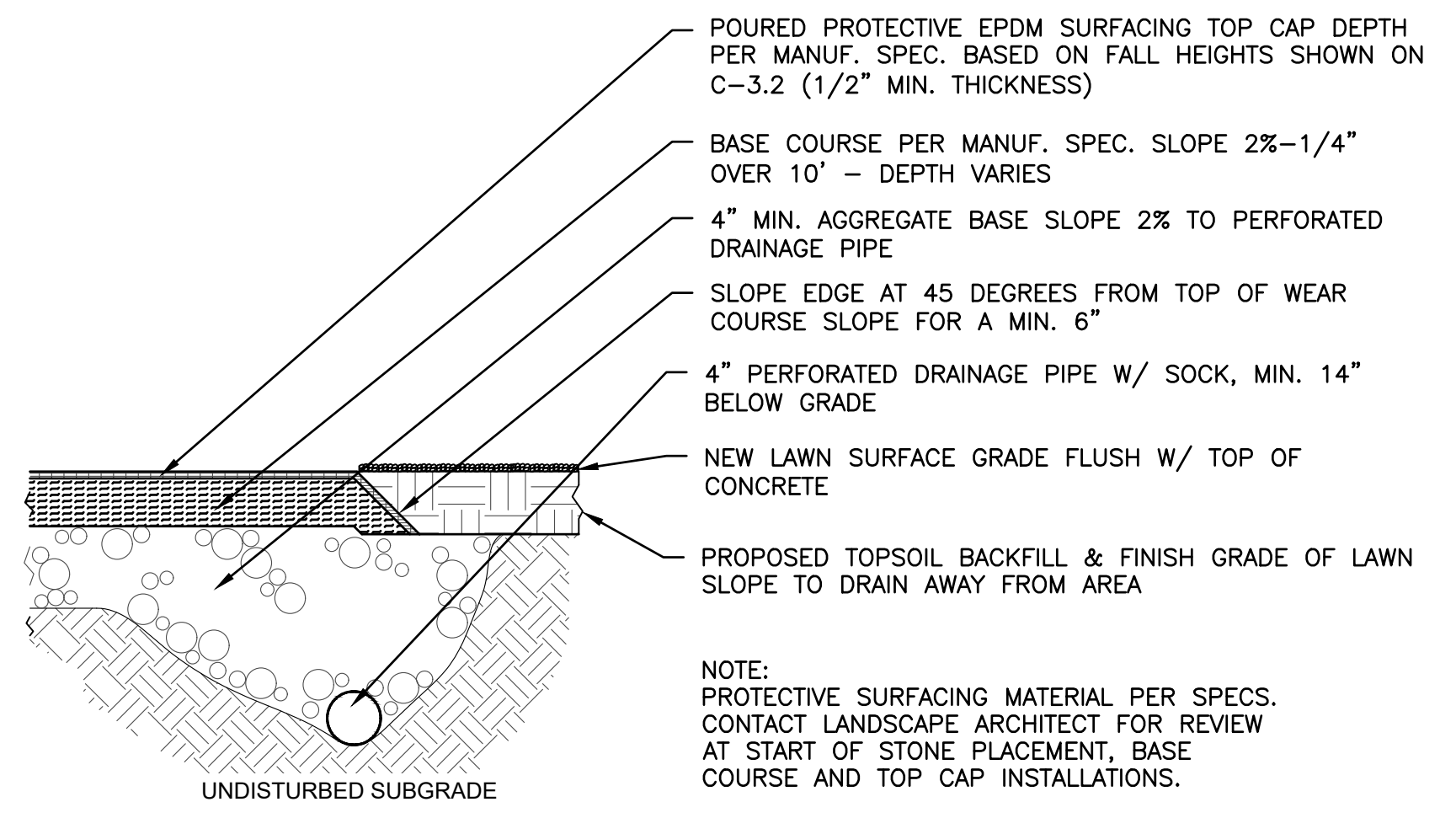
**6" STANDARD CURB & GUTTER DETAIL**  
NOT TO SCALE



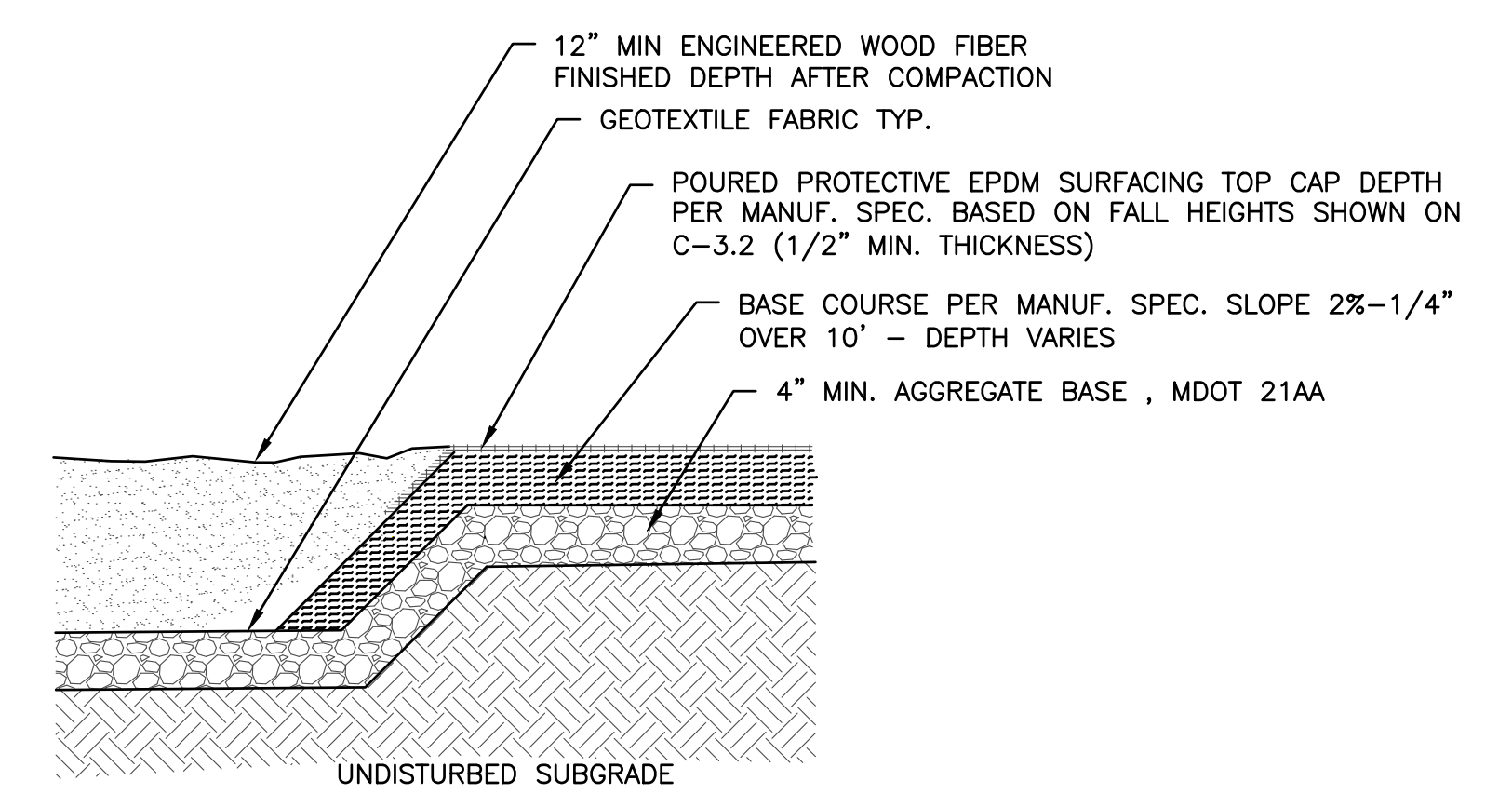
**6" CONCRETE STRAIGHT CURB DETAIL**  
NOT TO SCALE



**POURED PROTECTIVE SURFACING W/CONCRETE EDGE**  
NO SCALE



**PROTECTIVE SURFACING EDGE WITH MULCH**  
NO SCALE



**EWF PLAY BORDER TO PROTECTIVE EPDM SURFACING TRANSITION**  
NO SCALE

PROJECT MANAGER: C:\PW\_MORRIS\101472917\G01-PLTS-SITE DETAIL.DWG - C-5.0 - PLOTTED 1/15/2025 2:24 PM BY DENNIS, KATIE

REV#	DATE	DESCRIPTION	BY

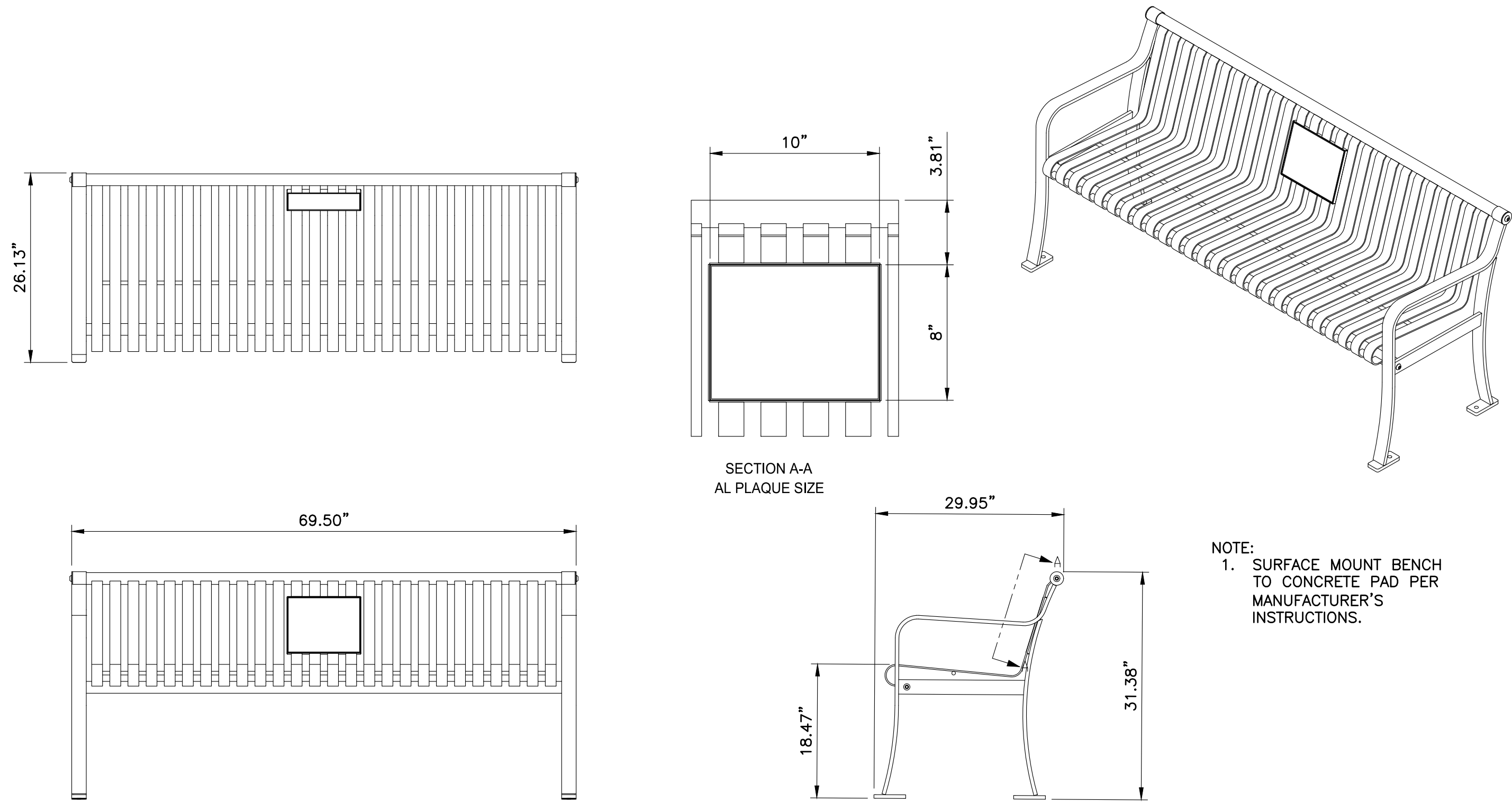
800 Grand Avenue, Suite 2000  
St. Johns, MD 21153  
301.981.9500  
www.wadetrims.com

City of St. Johns  
Fantasy Forest 2.0 Playground Improvements  
Playground Installation and Sitework  
SITE DETAILS

ISSUED FOR: DATE: BY:  
MDNR Rev 5/15/2025 CD  
90% Rev 1/15/2025 CD  
Bid 01/16/25 CD

JOB NO. CSJ200101D  
SHEET C-5.0

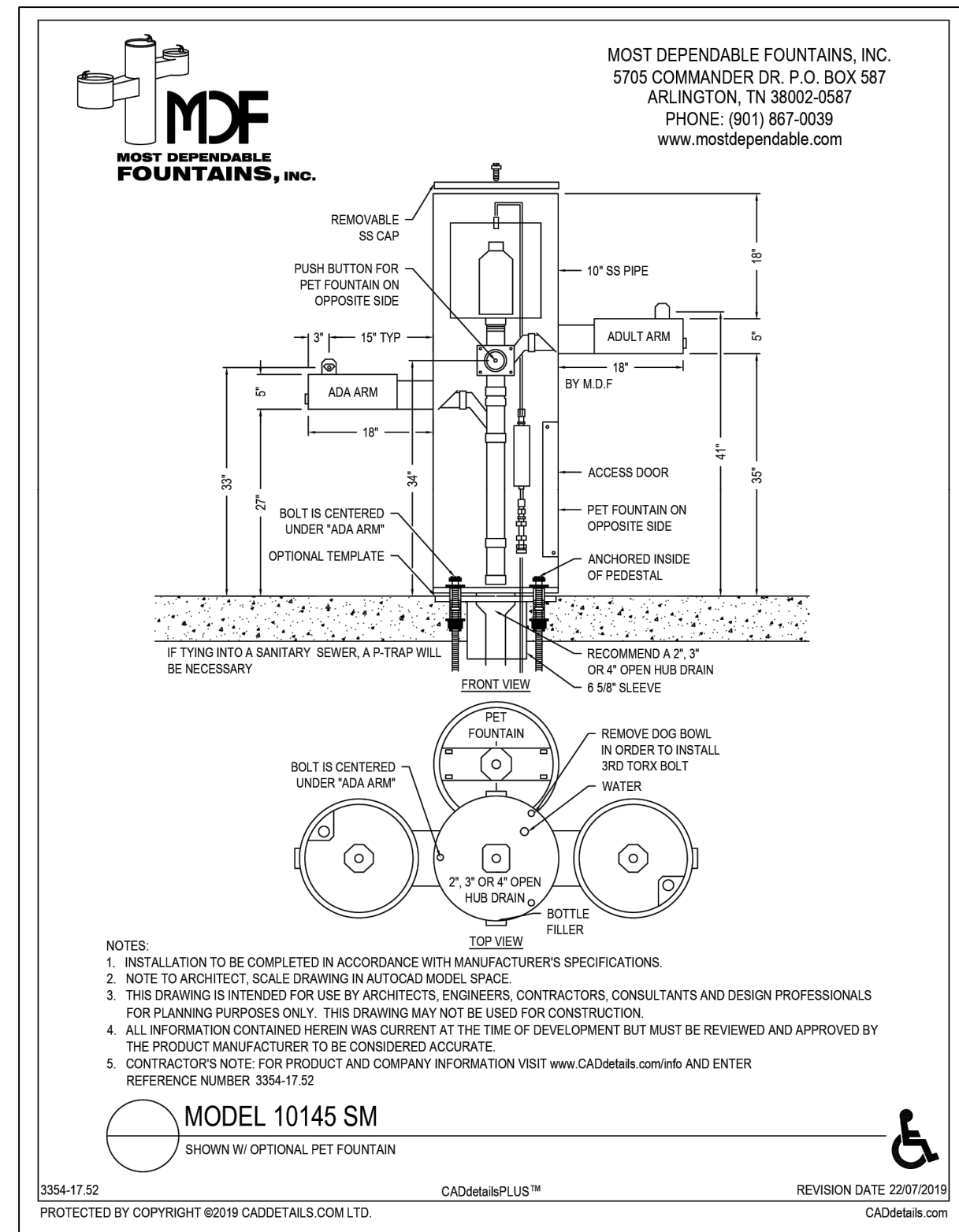
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**MAGLIN 510 BENCH, 70IN L, STEEL ENDS, METAL, END ARMS, 10IN X 8IN PLQ AL.**  
**ITEM: MMP-0510-00028, INSTALLATION DETAIL**

NOT TO SCALE

**NOTE:**  
 1. SURFACE MOUNT BENCH TO CONCRETE PAD PER MANUFACTURER'S INSTRUCTIONS.



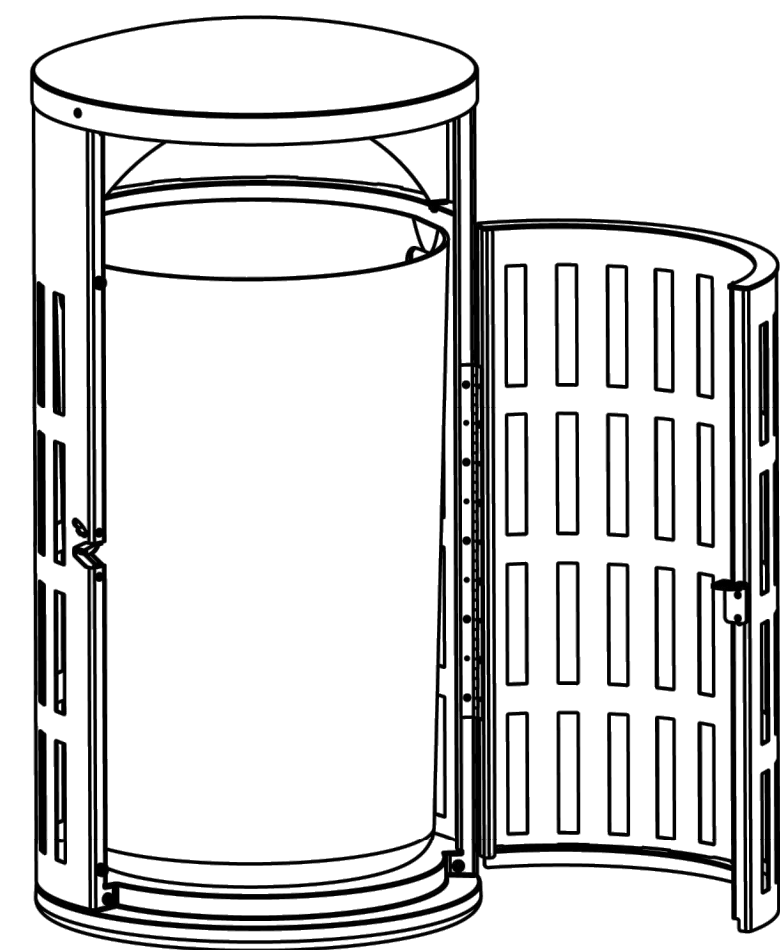
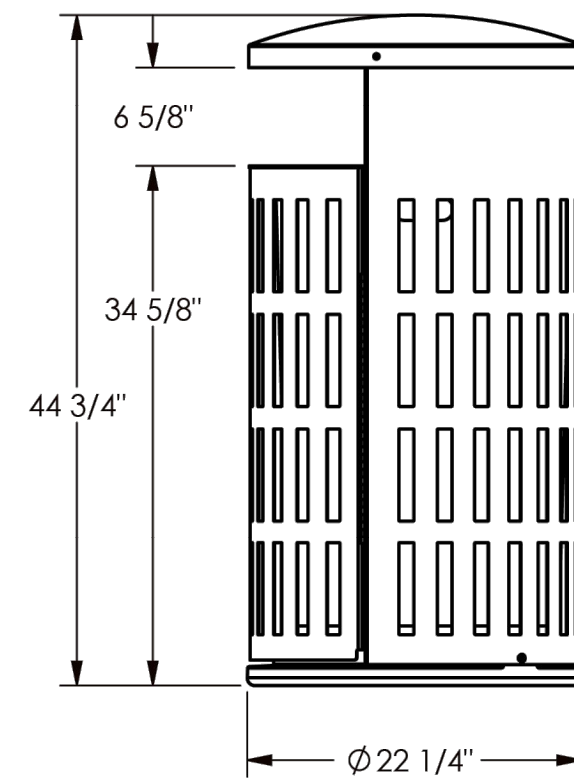
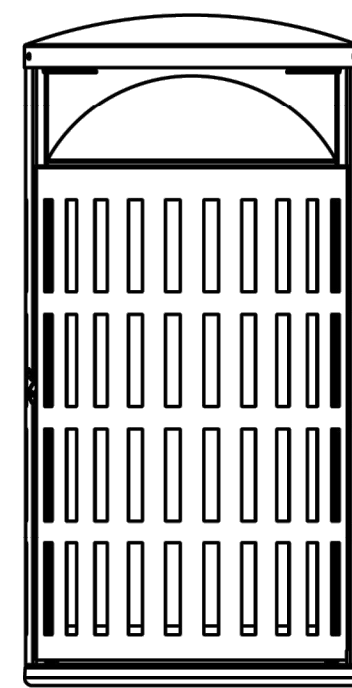
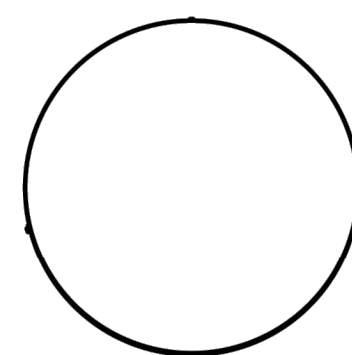
**NOTE:**  
 1. MOST DEPENDABLE FOUNTAINS MODEL 10145 DRINKING FOUNTAIN WITH PET FOUNTAIN. SURFACE MOUNT WITH 2\"/>

**MODEL 10145 DRINKING FOUNTAIN**  
 NO SCALE



**NOTE:**  
 1. SURFACE MOUNT LITTER BIN TO CONCRETE PAD PER MANUFACTURER'S INSTRUCTIONS.

ITEM	PART NUM	DESCRIPTION	QTY
1	800993	ASSY SHELL	1
2	800994	ASSY DOOR	1
3	238951	COVER - 16 GA STEEL	1
5	351066	DIVIDER TRASH	1
13	800961	HINGE, 18\"/>	
14	800982	ASSY LOCK TAB	1
15	801001	ASSY LATCH	1
16	400295	RIVET, BLIND, Ø.12 X 3/16, 18-8 SS	9
17	400296	RIVET, BLIND, Ø.156 X .18, 18-8 SS	2
18	400105	NUT, K-LOCK, 10-24, SS	2

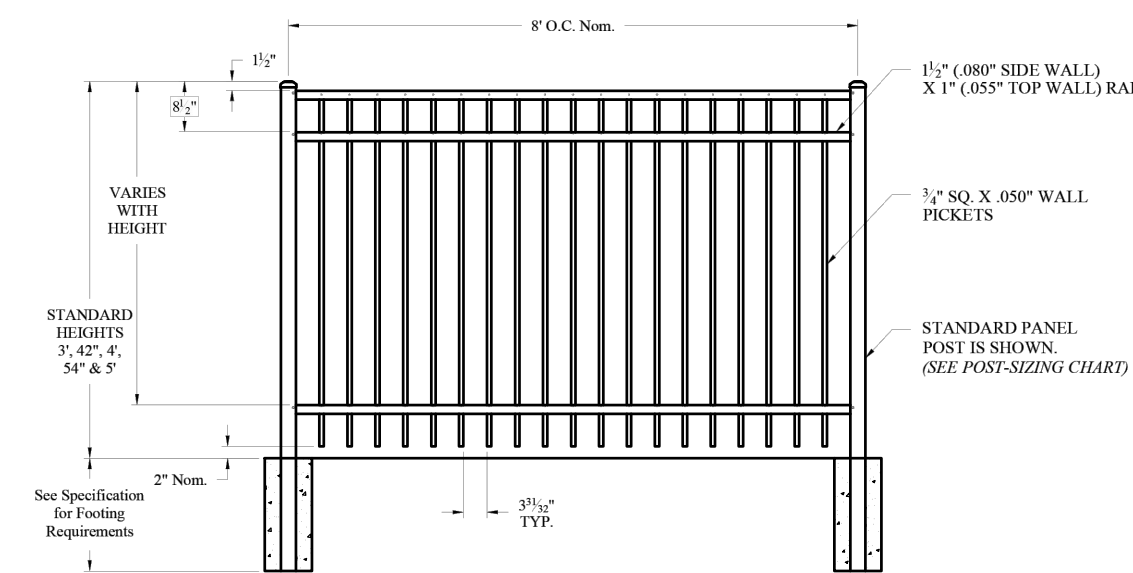


**WASAU TILE LITTER BIN MF3302**

NOT TO SCALE

**NOTES:**

- 3-rail is standard for all other heights, 4-rail is an option only for 6' height.
- Flush bottom available with certain heights, see Jerith Premier catalog.



**POST OPTIONS**

2\"/>
2\"/>
3\"/>
4\"/>

Values shown are nominal and not to be used for installation purposes. See product specification for installation requirements.

JERITH PREMIER STYLE #202 8\"/>



JERITH.COM | 800-344-2242  
 Experience a safer and more open world

**NOTE:**  
 1. FENCE TO BE 3' TALL WITH STANDARD POST OPTION.

**ORNAMENTAL FENCE DETAIL**

REV#	DATE	DESCRIPTION	BY

200 Grenfell Avenue, Suite 2000  
 Chicago, IL 60626  
 312.961.3500  
 www.wadetrims.com



**City of St. Johns**  
**Fantasy Forest 2.0 Playground Improvements**  
**Playground Installation and Sitework**  
 SITE DETAILS

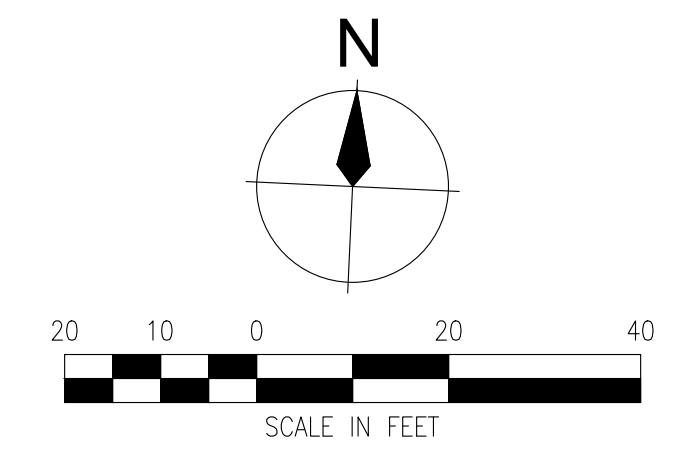
ISSUED FOR: DATE: BY:  
 MNR Review 8/19/24 CD  
 90% Review 12/20/24 CD  
 Bid 01/16/25 CD

JOB NO.  
**CSJ200101D**

SHEET

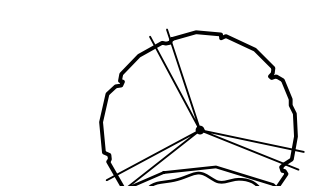

**C-5.1**

PROJECT MANAGER: C:\PW\WORK\01473817\LSIP-PLIS-LANDSCAPE\LANDING - L-1.0 - PLOTTED 1/15/2025 2:24 PM BY DENNIS, KATIE



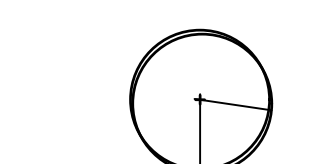


**LANDSCAPE LEGEND**



TREES

-  CC - AMERICAN HORNBEAM
-  FG - AMERICAN BEECH

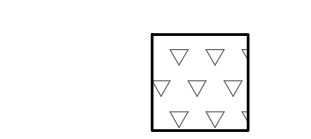
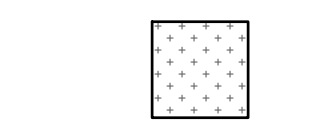
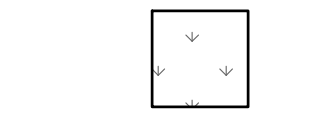
SHRUBS

-  CO - COMMON BUTTONBUSH
-  PO - COMMON NINEBARK
-  ST - AMERICAN BLADDERNUT

PERENNIALS

-  AF - LADY FERN
-  CL - NORTHERN SEA OATS

SEED MIXES

-  RAINGARDEN
-  SHORT WOODLAND
-  ECO-TURF LOW MAINTENANCE FESCUE

REV#	DATE	DESCRIPTION	BY

500 Shadybrook Lane, Suite 200  
 4000 W. 48th St.  
 313.981.8500  
 www.wadetrim.com



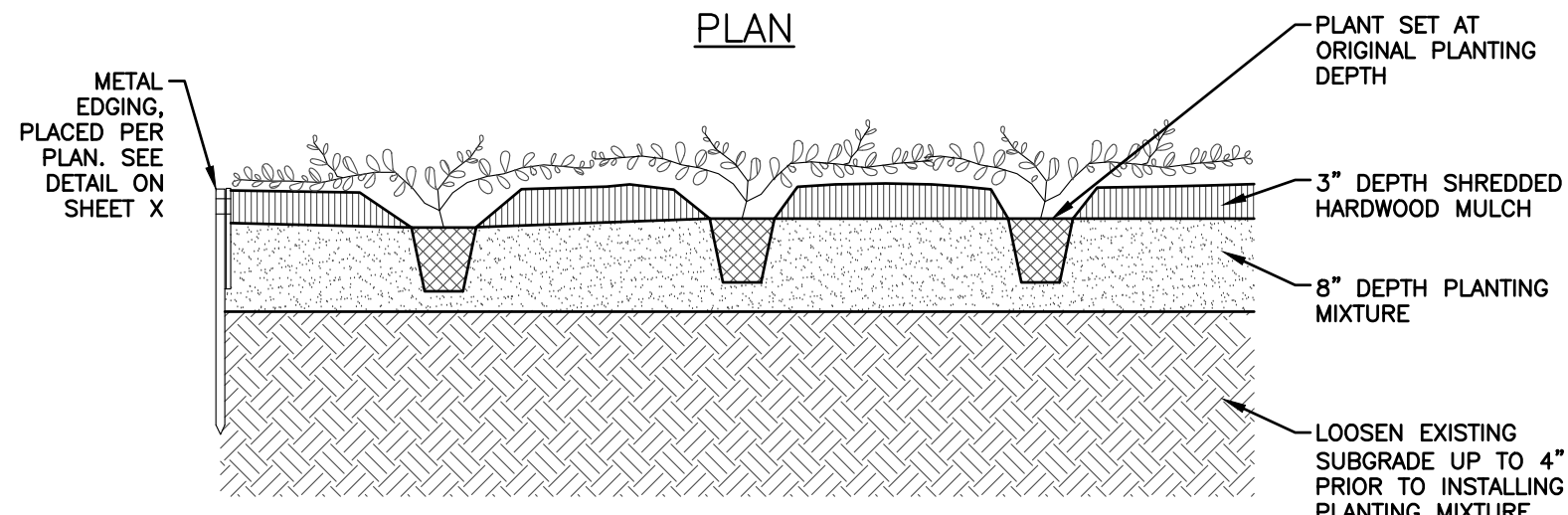
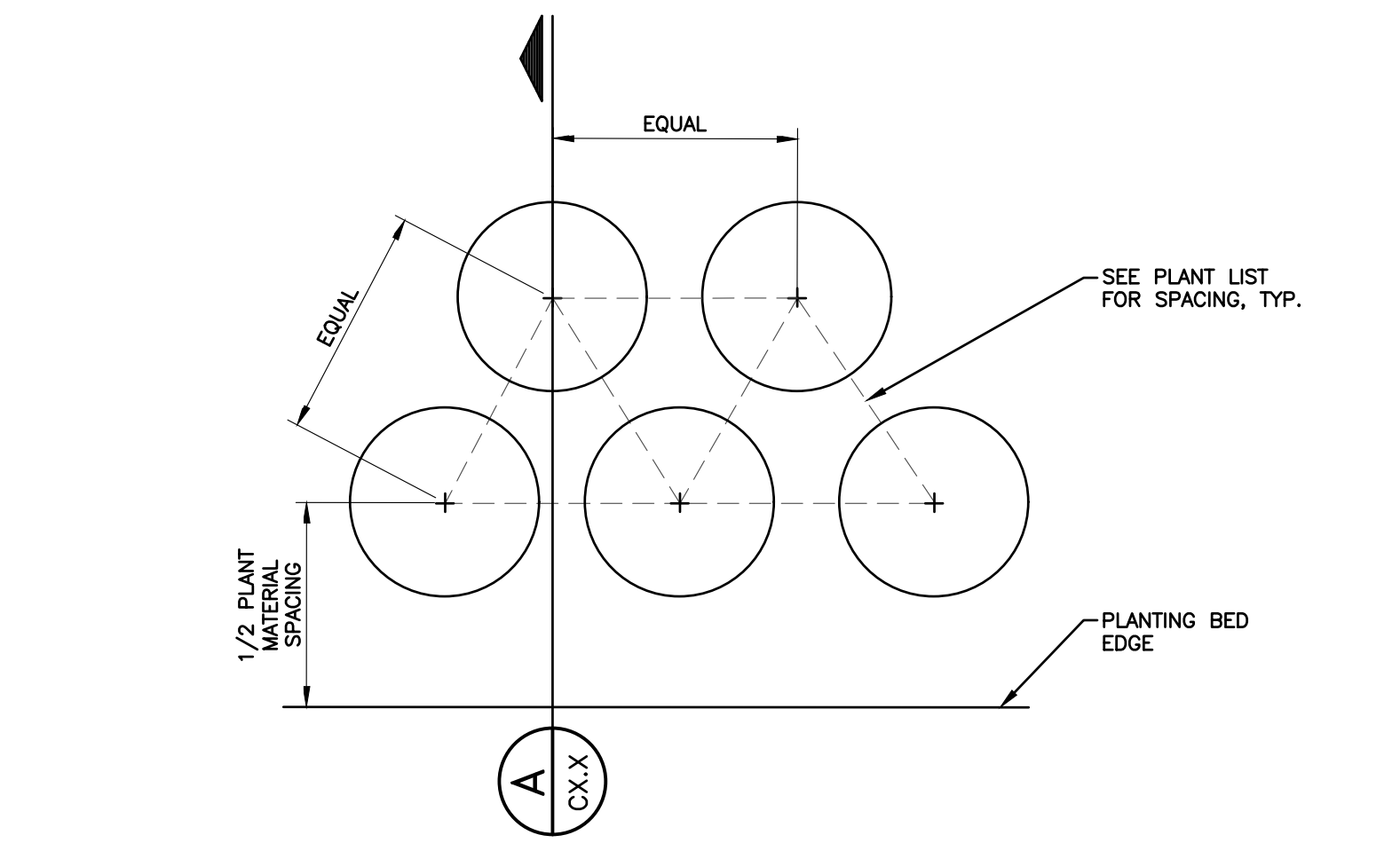
**City of St. Johns  
 Fantasy Forest 2.0 Playground Improvements  
 Playground Installation and Sitework**

LANDSCAPE PLAN

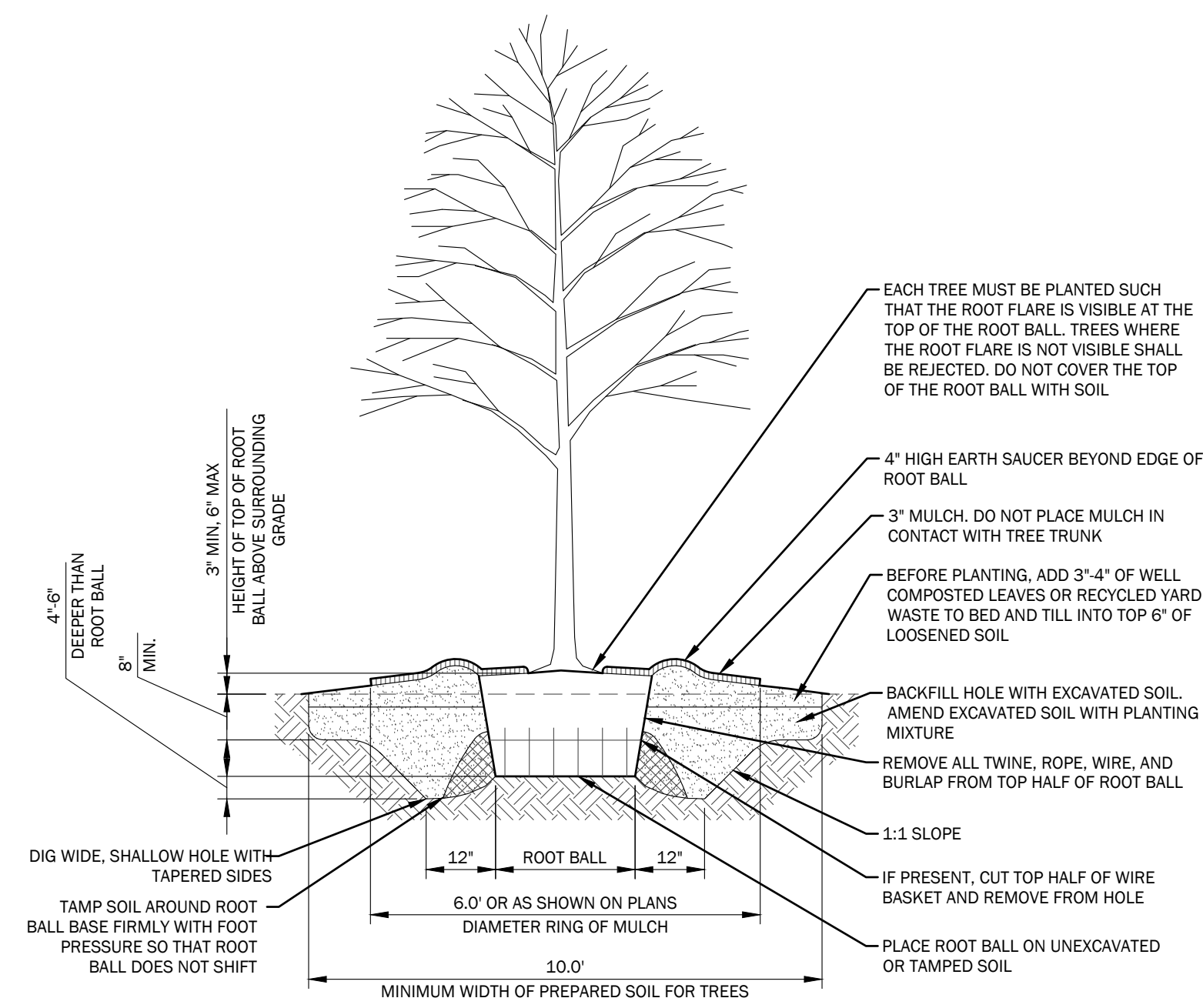
ISSUED FOR: DATE: BY:  
 MDR Review 8/19/24 CG  
 90% Review 12/20/24 CG  
 Bid 01/16/25 CG

JOB NO. CSJ200101D  
 SHEET L-1.0

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**GROUNDCOVER PLANTING DETAIL**  
NOT TO SCALE

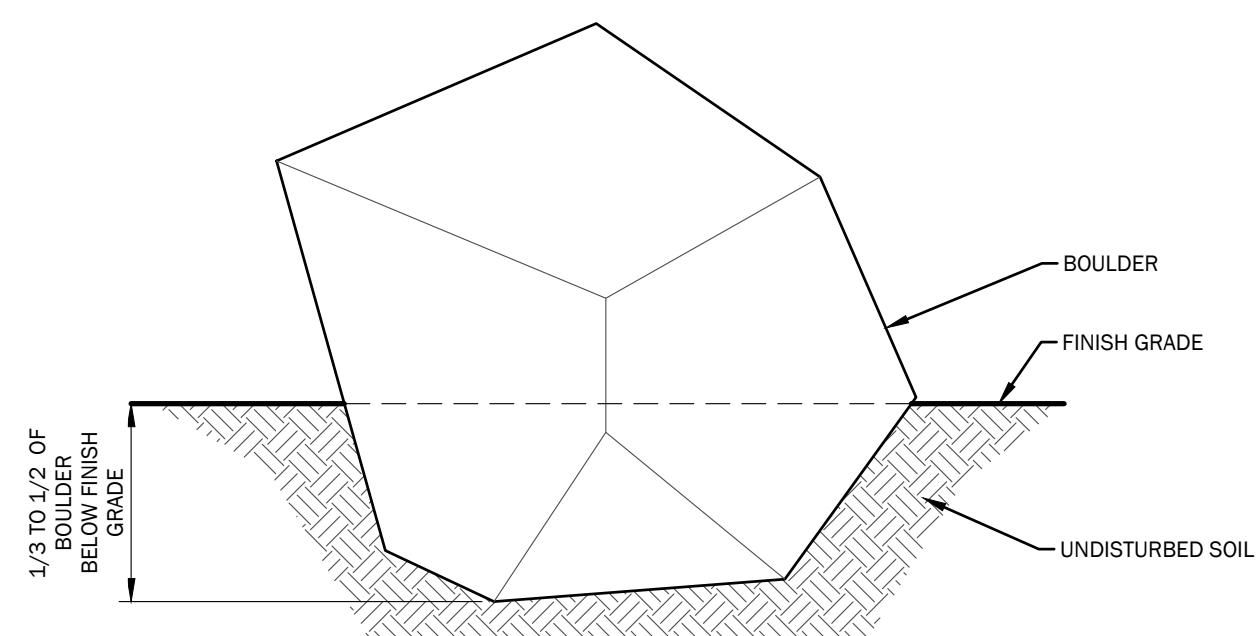


- NOTES:**
- FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OR THE CONTAINER.
  - AFTER DIGGING HOLE, FILL WITH WATER TO CONFIRM THAT WATER DRAINS OUT OF THE SOIL. IF HOLE DOES NOT PERC, DO NOT PLANT TREE. NOTIFY LANDSCAPE ARCHITECT FOR DIRECTION.
  - THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL IMMEDIATELY AFTER PLANTING.
  - THE PLANTING PROCESS IS SIMILAR FOR DECIDUOUS AND EVERGREEN TREES.
  - PURCHASE TREE WITH ONE CENTRAL LEADER. DO NOT PRUNE TREE AT PLANTING EXCEPT AS DIRECTED BY LANDSCAPE ARCHITECT.
  - SET TREE PLUMB WITH VERTICAL TRUNK.
  - STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.
  - WRAP TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

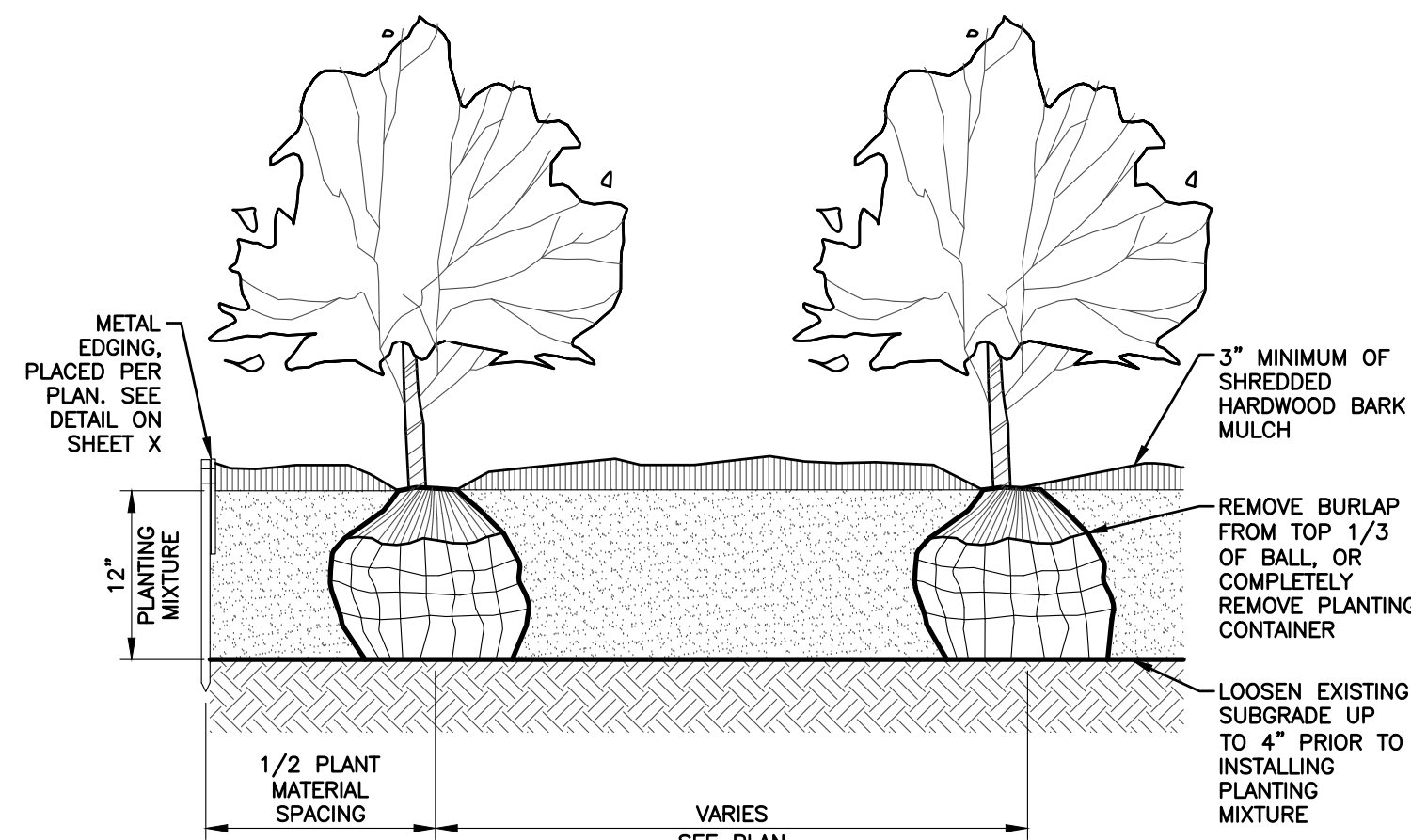
**TREE PLANTING DETAIL**  
NOT TO SCALE

**PLANTING NOTES**

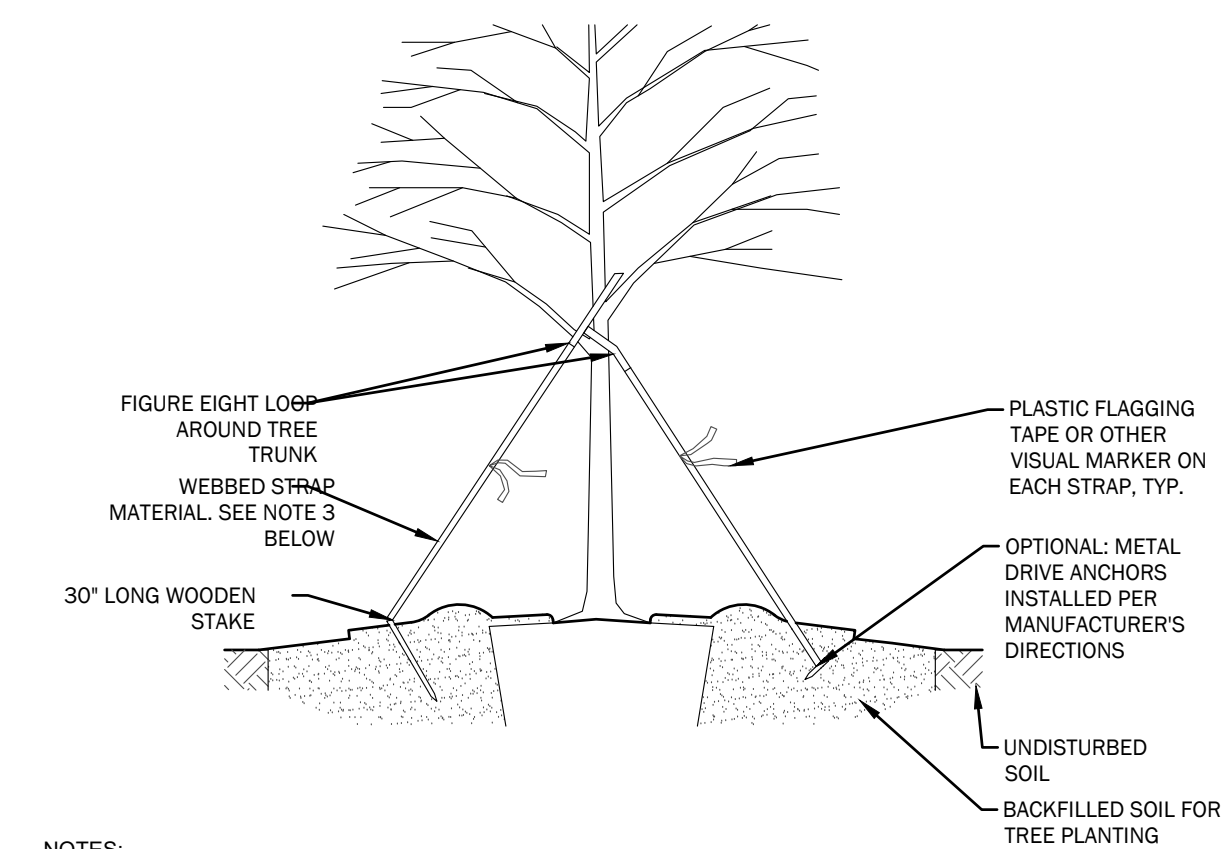
1. LANDSCAPE PLANTING DETAILS ARE PROVIDED FOR REFERENCE ONLY. INSTALLATION OF INDIVIDUAL PLANTS WILL BE DONE BY CITY STAFF AND VOLUNTEERS AT PUBLIC PLANTING DAY TO BE COORDINATED DURING SUMMER 2025.



**LANDSCAPE BOULDER PLACEMENT DETAIL**  
NOT TO SCALE



**SHRUB PLANTING DETAIL**  
NOT TO SCALE



- NOTES:**
- REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM THAT REQUIRED THE TREE TO BE STAKED. STAKES SHALL BE REMOVED NO LATER THAN THE END OF THE FIRST GROWING SEASON AFTER PLANTING.
  - TIGHTEN WEBBED STRAP MATERIAL ONLY ENOUGH TO KEEP FROM SLIPPING. ALLOW FOR SOME TRUNK MOVEMENT. INSTALL THREE STRAPS PER TREE, SPACED EVENLY AROUND THE TRUNK. INSTALL AS LOW ON TRUNK AS POSSIBLE.
  - WEBBED STRAP TO BE ABORTIVE OR APPROVED EQUAL.
  - TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF. THE FOLLOWING ARE REASONS WHY TREES DO NOT REMAIN STRAIGHT:
    - TREES WITH POOR-QUALITY ROOT BALLS OR ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED. REJECT RATHER THAN STAKE.
    - TREES THAT HAVE GROWN TOO CLOSE TOGETHER IN THE NURSERY, RESULTING IN WEAK TRUNKS. REJECT RATHER THAN STAKE.
    - PLANTING PROCEDURES THAT DO NOT ADEQUATELY TAMP SOILS ARE THE ROOT BALL. CORRECT THE PLANTING PROCEDURE.
    - ROOT BALLS PLACED ON VERY SOFT SOIL. TAMP SOILS UNDER ROOT BALL PRIOR TO PLANTING.
    - ROOT BALLS WITH VERY SANDY SOIL OR VERY WET SOIL. STAKING ADVISABLE.
    - TREES LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS. STAKING ADVISABLE.

**TREE STAKING DETAIL**  
NOT TO SCALE

PROJECT MANAGER: C:\PW\WORK\101473817\101-P15-LANDSCAPEDETAILS.DWG - L-2.0 - PLOTTED 1/15/2025 2:25 PM BY DENNIS, KATIE

REV#	DATE	DESCRIPTION	BY

500 Stewart Avenue, Suite 2500  
 400 Lexington Ave, 40th Fl  
 313.981.3650  
 www.wadetrim.com

**WADE TRIM**

City of St. Johns  
**Fantasy Forest 2.0 Playground Improvements  
 Playground Installation and Sitework**

LANDSCAPE NOTES & DETAILS

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### Michigan Wildflower Farm – Eco-Turf Low Maintenance Fescue Mix

Seeding Rate – 7 lbs./1000 s.f. or 300 lbs./acre  
\$5.25/lb.

Coverage Area	Weight	Cost
1/4 acre	75 lbs.	\$393.75
1/2 acre	150 lbs.	\$787.50
3/4 acre	225 lbs.	\$1181.25
1 acre	300 lbs.	\$1575.00

Due to fescue shortages, the EcoTurf Mix seeds are coated with ProTurf™, which includes limestone with polymer, micronutrients, kelp and beneficial mycorrhizae. This added coating assures stronger germination and faster establishment.

This drought-tolerant mix provides a turf which can establish in deep shade, full sun and even the most neglected areas. Consider seeding this mix in your landscape to cut back on your lawn maintenance time and costs.

Our Eco-Turf seed mix consists of five slow growing fescues. These are not native Michigan genotype species, but are offered as an alternative to traditional turf grass mixes. Because these species are slow growing, they require less frequent mowing and since they are deep-rooted, they require minimal if any water or fertilizer. If a manicured appearance is required, mowing can take place but with less frequency. We mowed our Eco-Turf three times this year and mowed our traditional lawn area seven times! Some of our customers choose not to mow the Eco-Turf at all as they enjoy the soft and fine texture appearance.

The five fescues in Eco-Turf make this mix suitable for sunny/partial shade, loam/sand/gravel and well-drained clay soils. Also, once established, carefree Eco-Turf is durable in high traffic areas. The optimal time for seeding this mix is mid-to-late August through September, although seeding in mid-to-late March through May is also possible.

Prior to seeding, the planting area needs to be as weed free as possible and we recommend preparation steps laid out in our "Ten Steps to a Successful Wildflower Planting." Watering the site initially can accelerate establishment. We have not irrigated our Eco-Turf lawn ever. Fertilizing is not needed, however, if broadleaf weeds become a problem, a broadleaf herbicide can be used.

### Michigan Wildflower Farm – Short Woodland Mix

40% Forbs, 60% Grasses  
5 oz./1000 s.f. or 10 lbs./acre  
\$14.50/oz. or \$232/lb.

Our seeds are available in any amount, no matter how small or large your project.

Coverage Area	Weight	Cost
1/4 acre	2.5 lbs.	\$580.00
1/2 acre	5 lbs.	\$1160.00
3/4 acre	7.5 lbs.	\$1740.00
1 acre	10 lbs.	\$2320.00

#### Mix Ratio

Forbs 40%

Grasses 60%

### Short Woodland Mix – Forbs

Scientific Name	Common Name
Achillea millefolium	Yarrow
Allium cernuum	Nodding Wild Onion
Anemone virginiana	Tall Thimbleweed
Aquilegia canadensis	Wild Columbine
Asclepias tuberosa	Butterfly Weed
Echinacea purpurea	Purple Coneflower
Monarda fistulosa	Wild Bergamot
Penstemon digitalis	Foxglove Beard-tongue
Penstemon hirsutus	Hairy Beard-tongue
Rudbeckia hirta	Black-eyed Susan
Rudbeckia triloba	Three-lobed Coneflower
Symphotrichum laeve	Smooth Aster
Symphotrichum oolentangianis	Prairie Heart-leaved Aster
Symphotrichum pilosum	Hairy Aster
Thalictrum dioicum	Early Meadow Rue
Zizia aurea	Golden Alexander

### Short Woodland Mix – Grasses

Scientific Name	Common Name
Bouteloua curtipendula	Side-oats Grama
Elymus hystrix	Bottlebrush Grass
Koeleria macrantha	June Grass
Schizachyrium scoparium	Little Bluestem

**A note about cover crop...**

If you are seeding on bare soil or slope, we recommend including a temporary cover crop at a rate of 15 lbs. per acre, \$3 per lb.

If you have large acreage, we suggest finding cover crop locally as they are commonly available and are heavy, adding substantially to your shipping cost with us.

### Michigan Wildflower Farm – Raingarden Mix

40% Forbs, 60% Grasses/Sedge/Rush  
3 oz./1000 s.f. or 6 lbs./acre  
\$16.50/oz. or \$264/lb.

Our seeds are available in any amount, no matter how small or large your project.

Coverage Area	Weight	Cost
1/4 acre	1.5 lbs.	\$390.00
1/2 acre	3 lbs.	\$782.00
3/4 acre	4.5 lbs.	\$1188.00
1 acre	6 lbs.	\$1584.00

#### Mix Ratio

Forbs 40%

Grasses 60%

### Raingarden Mix – Forbs

Scientific Name	Common Name
Anemone canadensis	Canada Anemone
Angelica atropurpurea	Angelica
Asclepias incarnata	Swamp Milkweed
Eupatorium maculatum	Joe-Pye Weed
Eupatorium perfoliatum	Boneset
Helenium autumnale	Sneezeweed
Hibiscus moscheutos	Swamp Rose Mallow
Iris virginica	Southern Blue Flag
Liatris spicata	Marsh Blazing Star
Lobelia siphilitica	Great Blue Lobelia
Rudbeckia fulgida	Sweet Black-eyed Susan
Solidago graminifolia	Grass-leaved Goldenrod
Symphotrichum puniceum	Swamp Aster
Verbena hastata	Blue Vervain
Vernonia missurica	Ironweed

### Raingarden Mix – Grasses

**A note about cover crop...**

If you are seeding on bare soil or slope, we recommend including a temporary cover crop at a rate of 15 lbs. per acre, \$3 per lb.

If you have large acreage, we suggest finding cover crop locally as they are commonly available and are heavy, adding substantially to your shipping cost with us.

- ### LANDSCAPE NOTES
- ALL PLANTS TO BE INSTALLED IN ACCORDANCE WITH AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
  - CONTRACTOR SHALL PROVIDE A PLANTING MIXTURE MEETING THE FOLLOWING REQUIREMENTS. IF THE ENGINEER HAS ANY CONCERNS WITH THE QUALITY OF THE PLANTING MIXTURE, THE ENGINEER SHALL BE ALLOWED TWO WEEKS TO OBTAIN SOIL TEST TO DETERMINE SPECIFICATION COMPLIANCE. NO PLANT MATERIAL SHALL BE PLANTED PRIOR TO ENGINEER APPROVAL OF PLANTING MIXTURE. ALL PLANT MATERIAL SHALL BE MAINTAINED BY THE CONTRACTOR IN A VIGOROUS GROWING CONDITION DURING THIS TIME AT NO ADDITIONAL COST.
  - SPACING OF PLANT MATERIALS SHALL BE AS SHOWN ON DRAWING OR ON PLANT LIST. THE ENGINEER SHALL REVIEW THE PLACEMENT OF PLANT MATERIAL PRIOR TO AND AFTER INSTALLATION, AND RESERVES THE RIGHT TO ADJUST LAYOUT TO ACCOMMODATE SITE CONDITIONS AND DESIGN INTENT.
  - ALL PLANT MATERIALS SHALL CONFORM TO PLANT SCHEDULES. SIZES SHALL BE THE MINIMUM STATED ON THE PLANT LIST OR LARGER. ALL MEASUREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "A.A.N. STANDARDS FOR NURSERY STOCK."
  - NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN FINISHED AND REVIEWED BY THE ENGINEER.
  - FINAL PLANT LOCATIONS SHALL BE MARKED BY CONTRACTOR THREE WORKING DAYS PRIOR TO PLANTING FOR ENGINEER REVIEW.
  - ALL PLANTED PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANTS ORIGINAL GRADE BEFORE DIGGING.
  - PLANT MATERIAL, ESPECIALLY EVERGREENS, TO BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) PREVAIL.
  - IF FOR ANY REASON ANY BALLED AND BURLAPED PLANT MATERIALS NEED TO BE STORED ON SITE LONGER THAN A 24-HOUR PERIOD, THEIR ROOT BALLS SHALL BE PROTECTED. ALL PLANTS SHALL BE THOROUGHLY WATERED EACH DAY THEY ARE STORED ON SITE. PLANTS MAY BE STORED ON SITE FOR A MAXIMUM OF TWO (2) WEEKS, OR 14 DAYS. ANY PLANTS ALLOWED TO DRY OUT AS DETERMINED BY THE ENGINEER WILL BE REJECTED.
  - NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL WRAPPING MATERIALS MADE OF SYNTHETIC OR PLASTICS SHALL BE COMPLETELY REMOVED AT TIME OF PLANTING.
  - THE CONTRACTOR SHALL FILL PLANT PIT WITH PREPARED PLANT MIX TO 1/2 DEPTH OF ROOT BALL OR ROOT MASS, PACK FIRMLY, PUDDLE WITH WATER; THEN FOR BALLED AND BURLAPED MATERIAL, THE BURLAP AND ALL LACING (INCLUDING WIRE BASKET IF NECESSARY) SHALL BE REMOVED FROM THE UPPER 1/3 OF ROOTBALL, THEN FINISH BACKFILLING ADDING SOLID FERTILIZER TO THE PLANT MIX, PACK FIRMLY AND WATER. A SAUCER SHALL BE PLACED AROUND EVERY PLANT AND SHALL BE APPROVED PRIOR TO PLACEMENT OF ANY MULCH.
  - ALL DISTURBED LAWN AREAS SHALL BE RESTORED WITH 4-INCHES OF TOPSOIL, SPREAD, FINE GRADED, AND SEEDED/SODDED AS SPECIFIED. PRIOR TO INSTALLATION OF TOPSOIL, LOOSEN SUBGRADE TO A DEPTH OF 2 INCHES. THIS WORK SHALL BE INCIDENTAL TO THE PROJECT.
  - TOPSOIL SHALL CONSIST OF FRIABLE, SHREDDED, AND SCREENED SOIL REASONABLY FREE OF GRASS, ROOTS, WEEDS, STICKS, STONES OR OTHER FOREIGN MATERIALS. THE TOPSOIL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. SOIL COMPOSITION SHOULD CONTAIN AN ORGANIC CONTENT OF 2 TO 6 PERCENT AND BE CLASSIFIED AS A LOAM OR SANDY LOAM AS SPECIFIED IN THE "GUIDE FOR U.S.D.A. SOIL TEXTURAL CLASSIFICATION".
  - ALL TREES AND SHRUBS ARE TO BE FERTILIZED ONCE ROOTS SYSTEM IS ESTABLISHED WITH AGRIFORM 21-GRAM FERTILIZER TABLETS AT RATES RECOMMENDED BY MANUFACTURER.
  - ALL PLANTS AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.
  - AT PLANTING TIME, ALL DEAD AND BROKEN BRANCHES SHALL BE PRUNED ON ALL DECIDUOUS TREES.
  - CONTRACTOR SHALL APPLY ENGINEER APPROVED PRE-EMERGENT HERBICIDE, "PREEN" OR EQUAL, TO SHRUB AND GROUND COVER PLANTING AREAS AT THE TIME OF PLANTING (IF SPRING PLANTED) OR THE FOLLOWING SPRING. CONTRACTOR SHALL ENSURE THE PLANT MATERIALS ARE RESISTANT TO THE HERBICIDES PROPERTIES. HERBICIDE SHALL BE APPLIED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND IN ACCORDANCE WITH SOUND HORTICULTURAL PRACTICES.
  - ALL TREES, SHRUBS AND PERENNIAL GROUND COVER SHALL RECEIVE A MINIMUM DEPTH OF THREE INCHES DOUBLE SHREDDED HARDWOOD BARK MULCH, WHERE PLANT BEDS MEET PAVEMENTS, LAWN, OR STEEL EDGING CUT THE GRADE TO ALLOW FOR MULCH AND THREE-INCH DROP FROM ADJOINING FINISH GRADE.
  - ALL PLANT BEDS SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8-INCHES AND BACKFILLED WITH SPECIFIED PLANT MIX AS PER PLANTING BED DETAILS. BEDS SHALL BE EDGED WITH METAL EDGING AROUND PERIMETER. ALL EDGING SHALL BE 4" WIDE – 12 GAUGE STEEL, COLOR BLACK. CONTRACTOR SHALL LAYOUT EDGING FOR APPROVAL AND INSTALL PER MANUFACTURERS RECOMMENDATIONS.
  - PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE. ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) FULL YEAR FOLLOWING PLANTING. ALL DISEASED, DAMAGED, OR DEAD MATERIAL SHOWN ON THE SITE PLAN SHALL BE REPLACED BY THE END OF THE FOLLOWING GROWING SEASON.
  - APPLICATIONS OF FERTILIZER BEYOND THE INITIAL TOPSOIL AND SEEDING SHALL BE A FERTILIZER WITH NO PHOSPHOROUS.
  - CONTRACTOR SHALL INFORM LANDSCAPE ARCHITECT OF ANY FOUND DISCREPANCIES IN WRITING PRIOR TO INSTALLATION.
  - PLANTING SOIL AND MULCH INSTALLATION IS INCIDENTAL TO LANDSCAPE PAY ITEMS.

- ### PLANTING MIXTURE NOTES
- MIXTURE SHALL BE A MIXTURE OF 6 PARTS TOPSOIL, 4 PARTS MEDIUM-COARSE SAND, AND 1 PART COMPOST. ADD FERTILIZER AT THE QUANTITY AS RECOMMENDED BY THE MANUFACTURER. PLANTING MIXTURE SHALL BE FREE FROM STICKS, STONES, SOD CLOUDS, OR OTHER MATERIAL WHICH MIGHT LEAVE POCKETS AROUND THE ROOTS.
  - TOPSOIL
    - TOPSOIL SHALL BE FERTILE, FRIABLE, SANDY CLAY LOAM WITHOUT ADMIXTURE OF SUBSOIL. TOPSOIL IS TO BE FREE OF GLASS, STONES GREATER THAN ONE (1) INCH IN ANY DIMENSION, WEEDS, UNDESIRABLE GRASSES AND OTHER EXTRANEOUS MATERIALS. TOPSOIL SHALL HAVE THE FOLLOWING RANGE OF VALUES:
      - pH 5.0 TO 7.5
      - SOLUBLE SALTS 500 PPM MAX
      - ORGANIC CONTENT 5% TO 30%
      - SLT CONTENT 35% TO 50%
      - CLAY CONTENT 5% TO 10%
      - DELETERIOUS MATL\* 5% MAX
      - \*ROCK, GRAVEL, STONE, STICKS, ROOTS, SOD, ETC.
    - TOPSOIL IS TO BE FINAL SCREENED THRU A 5/8" MAXIMUM MESH SCREEN PRIOR TO DELIVERY TO THE PROJECT SITE. ENGINEER SHALL REVIEW SOURCE AND FINAL SCREEN RESULTS PRIOR TO RELEASE OF TOPSOIL. CONTRACTOR SHALL SUBMIT A CERTIFIED ANALYSIS OF THE TOPSOIL FROM EACH SOURCE TO THE ENGINEER. TOPSOIL SHALL BE PLACED IN 4-INCH MINIMUM THICKNESS THROUGHOUT.
  - SAND FOR PLANTING MIXTURE SHALL BE CLEAN, MEDIUM-COARSE, UNGRADED SAND CONFORMING TO ASTM C3 FOR FINE AGGREGATES.
  - COMPOST SHALL BE COMPOSTED PINE BARK FINES OR OTHER HIGH-LIGNIN BARK FROM SPRUCE, FIR, OR OTHER CONIFERS.

### LANDSCAPE SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	SPACING
TREES	CC	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" CAL.	2	PER PLAN
	FG	FAGUS GRANDIFOLIA	AMERICAN BEECH	2.5" CAL.	2	PER PLAN
SHRUBS	CO	CEPHALANTHUS OCCIDENTALIS	COMMON BUTTONBUSH	#3	24	PER PLAN
	PO	PHYSOCARPUS OPULIFOLIUS	COMMON NINEBARK	#3	22	PER PLAN
	ST	STAPHYLEA TRIFOLIA	AMERICAN BLADDERNUT	#3	4	PER PLAN
PERENNIALS	AF	ATHYRIUM FILIX-FEMINA	LADY FERN	#1	60	PER PLAN
	CL	CHASMANTHIUM LATIFOLIUM	NORTHERN SEA OATS	#1	60	PER PLAN
SEED MIXES		PATTERN	TYPE	QUANTITY		
			RAINGARDEN	1,706 S.F.		
			SHORT WOODLAND	11,397 S.F.		
		ECO-TURF LOW MAINTENANCE FESCUE	4,738 S.F.			

REV#	DATE	DESCRIPTION

500 Shadybrook, Suite 2500  
Darien, MA 01924  
313.981.8500  
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