

TENNIS, PICKLEBALL & BASKETBALL COURT IMPROVEMENTS

BROADVIEW HEIGHTS RECREATION CENTER

CUYAHOGA COUNTY - OHIO

MARCH 2025

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THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE CAUSED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ALL UTILITIES.



LOCATION MAP
SCALE: 1" = 200'

OWNER:

CITY OF BROADVIEW HEIGHTS
9543 BROADVIEW ROAD
BROADVIEW HEIGHTS, OHIO 44147
440-838-4705

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GENERAL NOTES

1. THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT, EXISTING RIGHT-OF-WAYS, AND CONSTRUCTION OR PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF ITS OWNER.
2. THE LOCATION OF UTILITIES AND STRUCTURES, BOTH SURFACE AND SUBSURFACE, ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF SURVEY AND IS NOT NECESSARILY COMPLETE OR CORRECT. THE EXACT LOCATION AND PROTECTION OF UTILITIES AND STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR. DURING CONSTRUCTION THE CONTRACTOR SHALL USE DUE DILIGENCE IN PROTECTING FROM DAMAGE ALL EXISTING UTILITIES AND STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR RESTORATION OF SAME IN ACCORDANCE WITH THE DIRECTIONS OF THE ENGINEER AND FOR ANY CONTINGENT DAMAGE.
3. ALL EXCAVATION UNDER OR NEAR EXISTING OR FUTURE PAVEMENT SUBJECT TO SETTLEMENT, WILL BE BACKFILLED WITH PREMIUM BACKFILL.
4. SLAG SHALL NOT BE USED IN ANY CASE ON THE PROJECT. CRUSHED LIMESTONE IS THE ONLY ACCEPTABLE BEDDING AND PREMIUM BACKFILL MATERIAL.
5. THE CONTRACTOR SHALL DISPOSE OF ALL SURPLUS EXCAVATION AND THE COST SHALL BE INCLUDED IN THE PRICE BID FOR THE RELATED ITEMS.
6. RESTORATION:
ALL EXISTING LAWN AREAS REMOVED OR DISTURBED BY ANY WORK SHALL BE REPLACED BY SEEDING AND MULCHING IN ACCORDANCE WITH ODOT ITEM 659, AND SHALL BE RE-SEEDING AND MULCHED IF SATISFACTORY RE-ESTABLISHMENT OF LAWN DOES NOT OCCUR. ACCEPTANCE SHALL BE BASED UPON EVIDENCE OF SATISFACTORY RE-ESTABLISHMENT OF LAWN AREA. ALL AREAS SHALL BE RESTORED TO THEIR ORIGINAL PRE-CONSTRUCTION CONDITION OR BETTER.
7. WASHING OUT CONCRETE TRUCKS AND EQUIPMENT:
CONCRETE CONTRACTORS MUST PROVIDE A DESIGNATED AREA FOR WASHING OUT CONCRETE TRUCKS DELIVERING THEIR CONCRETE, AS WELL AS CLEANING THEIR OWN EQUIPMENT. CONTRACTORS MUST BE VIGILANT TO ASSURE THAT TRUCKS AND EQUIPMENT DO NOT GET WASHED OUT ONTO PAVEMENT OR CATCH BASINS. THE CONCRETE CONTRACTOR SHALL REMOVE ALL CONTENTS OF THE WASHOUT AREA FROM THE SITE.
8. AT THE CONCLUSION OF CONSTRUCTION, THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATIONS AND RESTORE DISTURBED SURFACES, STRUCTURES, DITCHES OR PROPERTY TO THEIR ORIGINAL CONDITION.

APPROVALS:

City of Broadview Heights:

Gene Esser, P.E. City Engineer

Plans prepared by Hejduk-Cox and Associates, Inc.
Consulting Engineers and Surveyors

Jason L. Kekic, P.E., CPESC, CESSWI Date
03-19-25
Reg. No. E-61676



SAFETY OF CONSTRUCTION: COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT (LATEST REVISION) IS **REQUIRED** OF ALL CONTRACTORS ON THIS PROJECT.

PROPOSED TENNIS, PICKLEBALL & BASKETBALL COURTS

BROADVIEW HEIGHTS RECREATION CENTER

9543 BROADVIEW ROAD
BROADVIEW HEIGHTS, OHIO 44147

Project No.
24802

Drawing No.

C-1

TITLE SHEET

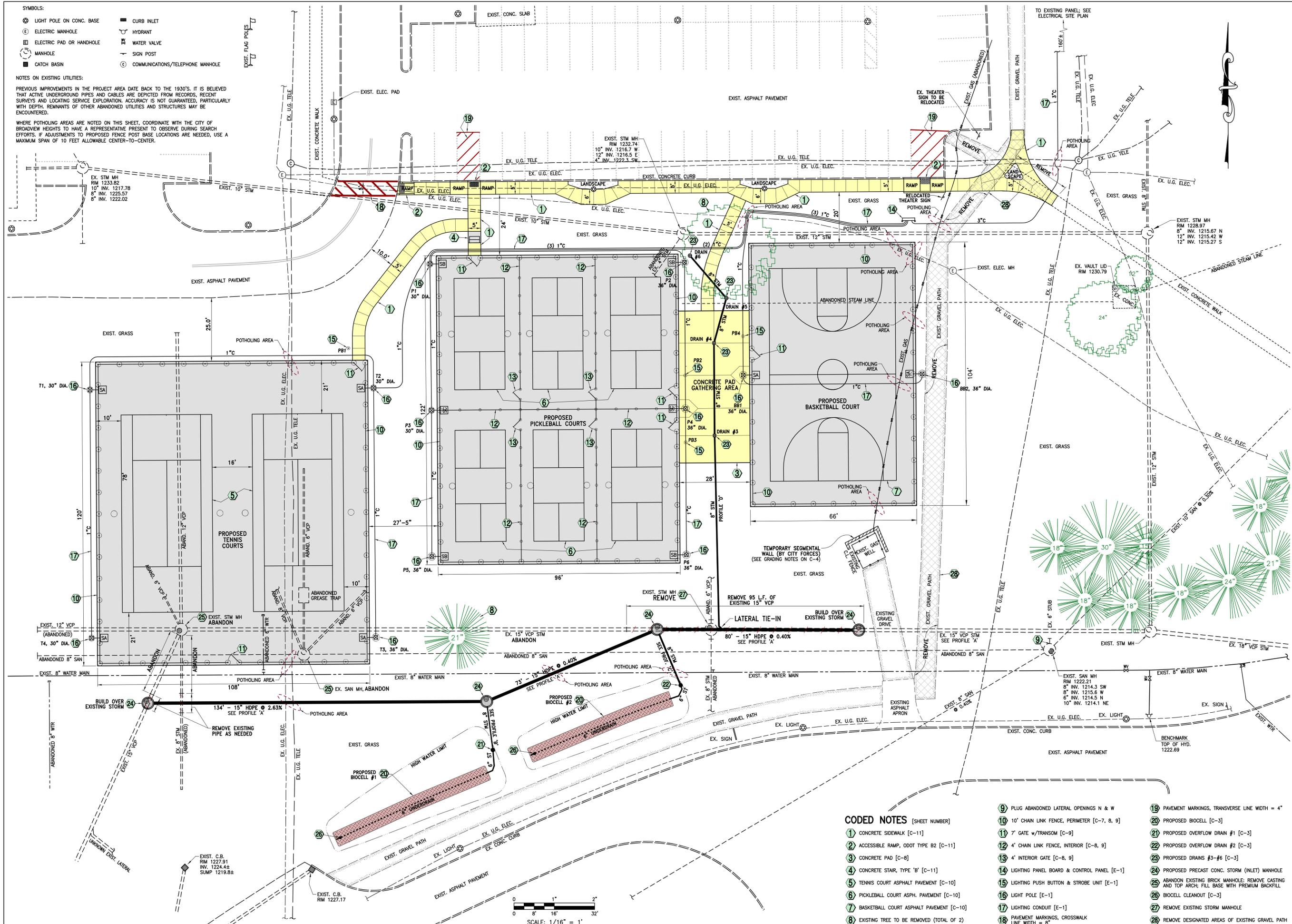
BROADVIEW HEIGHTS RECREATION CENTER

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C-2

SITE PLAN

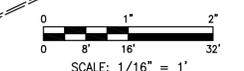


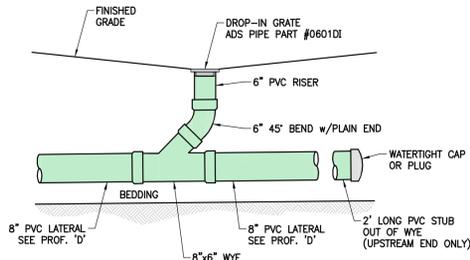
- SYMBOLS:**
- ⊙ LIGHT POLE ON CONC. BASE
 - ⊕ ELECTRIC MANHOLE
 - ⊖ ELECTRIC PAD OR HANDHOLE
 - ⊗ MANHOLE
 - CATCH BASIN
 - CURB INLET
 - ⊕ HYDRANT
 - ⊕ WATER VALVE
 - ⊕ SIGN POST
 - ⊕ COMMUNICATIONS/TELEPHONE MANHOLE

NOTES ON EXISTING UTILITIES:
 PREVIOUS IMPROVEMENTS IN THE PROJECT AREA DATE BACK TO THE 1930'S. IT IS BELIEVED THAT ACTIVE UNDERGROUND PIPES AND CABLES ARE DEPICTED FROM RECORDS, RECENT SURVEYS AND LOCATING SERVICE EXPLORATION. ACCURACY IS NOT GUARANTEED, PARTICULARLY WITH DEPTH. REMNANTS OF OTHER ABANDONED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED.

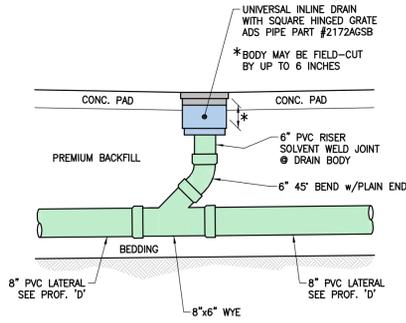
WHERE POTHOLING AREAS ARE NOTED ON THIS SHEET, COORDINATE WITH THE CITY OF BROADVIEW HEIGHTS TO HAVE A REPRESENTATIVE PRESENT TO OBSERVE DURING SEARCH EFFORTS. IF ADJUSTMENTS TO PROPOSED FENCE POST BASE LOCATIONS ARE NEEDED, USE A MAXIMUM SPAN OF 10 FEET ALLOWABLE CENTER-TO-CENTER.

- CODED NOTES [SHEET NUMBER]**
- 1 CONCRETE SIDEWALK [C-11]
 - 2 ACCESSIBLE RAMP, ODOT TYPE B2 [C-11]
 - 3 CONCRETE PAD [C-8]
 - 4 CONCRETE STAIR, TYPE 'B' [C-11]
 - 5 TENNIS COURT ASPHALT PAVEMENT [C-10]
 - 6 PICKLEBALL COURT ASPH. PAVEMENT [C-10]
 - 7 BASKETBALL COURT ASPHALT PAVEMENT [C-10]
 - 8 EXISTING TREE TO BE REMOVED (TOTAL OF 2)
 - 9 PLUG ABANDONED LATERAL OPENINGS N & W
 - 10 10' CHAIN LINK FENCE, PERIMETER [C-7, 8, 9]
 - 11 7' GATE w/TRANSOM [C-9]
 - 12 4' CHAIN LINK FENCE, INTERIOR [C-8, 9]
 - 13 4' INTERIOR GATE [C-8, 9]
 - 14 LIGHTING PANEL BOARD & CONTROL PANEL [E-1]
 - 15 LIGHTING PUSH BUTTON & STROBE UNIT [E-1]
 - 16 LIGHT POLE [E-1]
 - 17 LIGHTING CONDUIT [E-1]
 - 18 PAVEMENT MARKINGS, CROSSWALK LINE WIDTH = 8"
 - 19 PAVEMENT MARKINGS, TRANSVERSE LINE WIDTH = 4"
 - 20 PROPOSED BIOCELL [C-3]
 - 21 PROPOSED OVERFLOW DRAIN #1 [C-3]
 - 22 PROPOSED OVERFLOW DRAIN #2 [C-3]
 - 23 PROPOSED DRAINS #3-#6 [C-3]
 - 24 PROPOSED PRECAST CONC. STORM (INLET) MANHOLE AND TOP ARCH; FILL BASE WITH PREMIUM BACKFILL
 - 25 ABANDON EXISTING BRICK MANHOLE; REMOVE CASTING AND TOP ARCH; FILL BASE WITH PREMIUM BACKFILL
 - 26 BIOCELL CLEANOUT [C-3]
 - 27 REMOVE EXISTING STORM MANHOLE
 - 28 REMOVE DESIGNATED AREAS OF EXISTING GRAVEL PATH

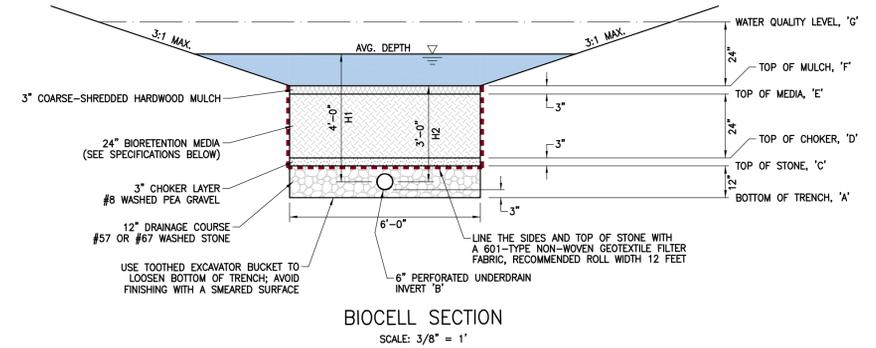
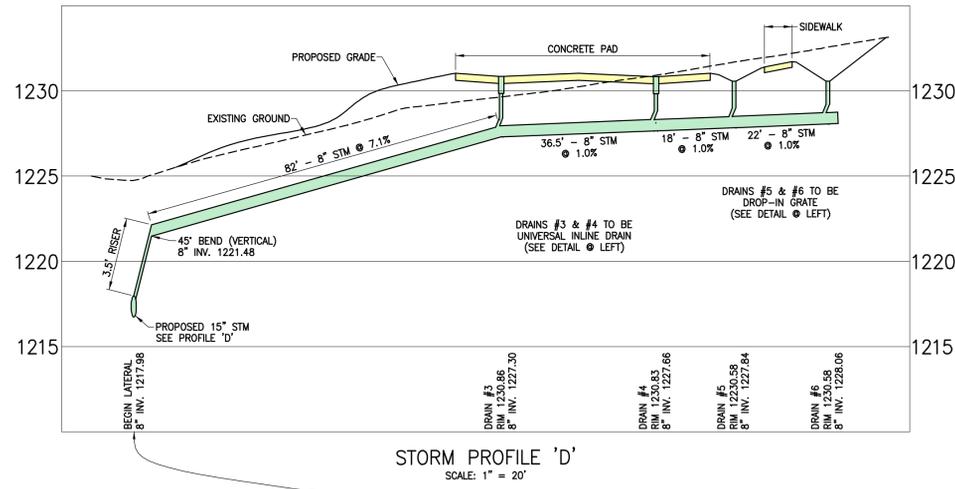




DROP-IN GRATE INLET (#5 & #6)
 SCALE: 1/2" = 1"



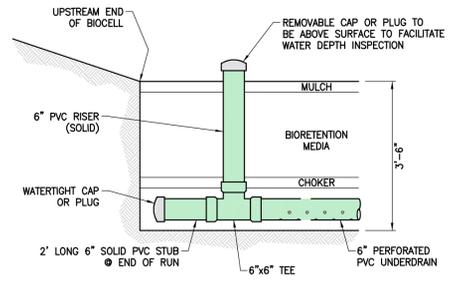
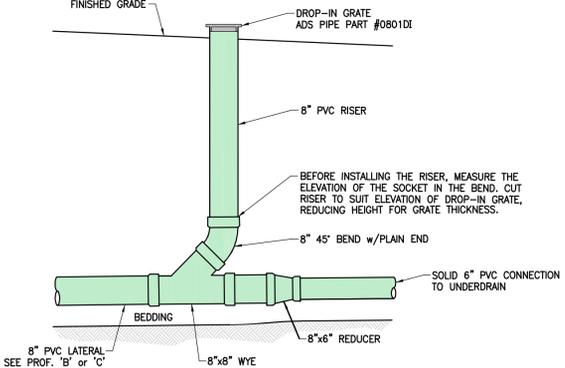
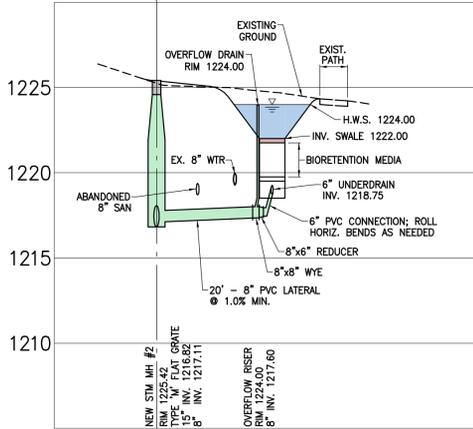
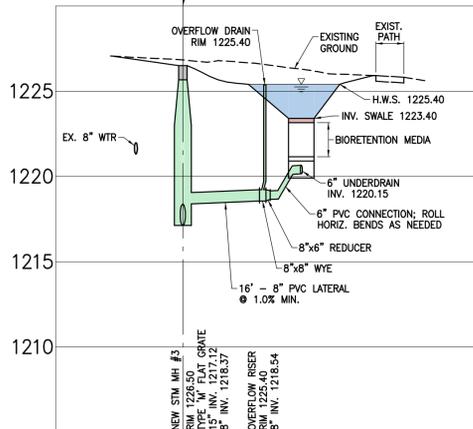
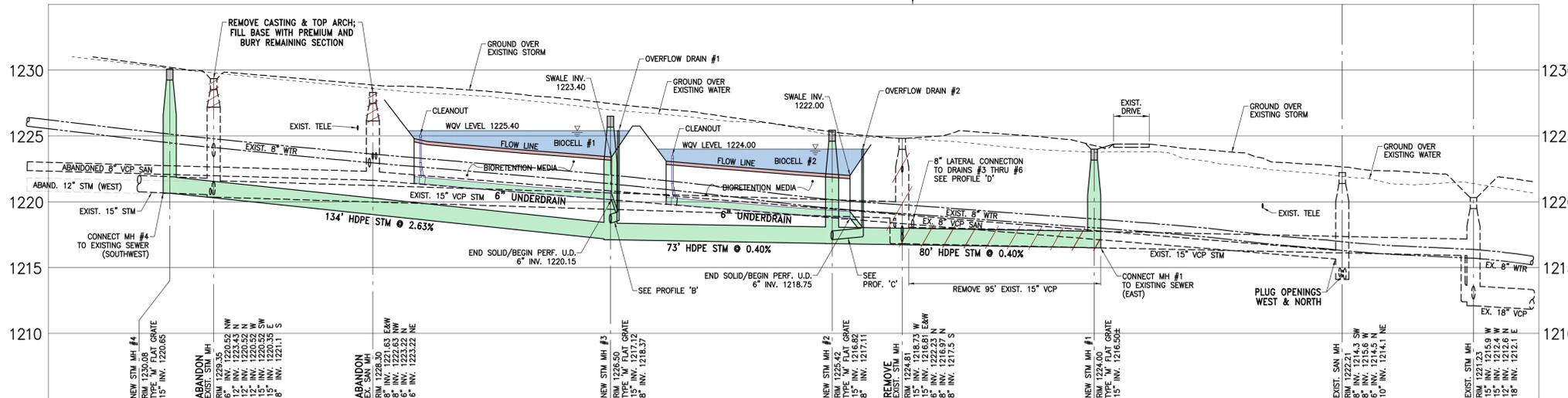
UNIVERSAL INLINE DRAIN (#3 & #4)
 SCALE: 1/2" = 1"



AVG. HYDRAULIC GRADIENT, $i = H1/H2 = 4.0/3.0 = 1.33$
 DISCHARGE Q IN CFS = $(k) \times (i) \times (\text{AREA OF BIOCELL})$

BIOCELL PARAMETERS		
DESCRIPTION	#1	#2
ELEV. G	1225.40	1224.00
ELEV. F	1223.40	1222.00
ELEV. E	1223.15	1221.75
ELEV. D	1221.15	1219.75
ELEV. C	1220.90	1219.50
ELEV. B	1220.15	1218.75
ELEV. A	1219.90	1218.50
CELL WIDTH	6'	6'
CELL LENGTH	66'	60'
CELL AREA	396 s.f.	360 s.f.
(k) MEDIA CONDUCTIVITY	1.32 in/hr	1.18 in/hr
W.Q. VOLUME	1,389 cu. ft.	1,129 cu. ft.
(Q) DISCHARGE	57.9 cu. ft./hr	47.0 cu. ft./hr
DRAWDOWN TIME	24.0 hr	24.0 hr

- BIORETENTION MEDIA SPECIFICATIONS:**
- USDA SOIL TEXTURE: LOAMY SAND
 - CLAY CONTENT: MINERAL FRACTION NO GREATER THAN 10% BY WEIGHT (< 0.002 mm)
 - SAND CONTENT: NO LESS THAN 80% AND NO MORE THAN 90% COARSE SAND BY WEIGHT (0.25 TO 1.0 mm)
 - ORGANIC MATTER CONTENT: 1.5% TO 5% BY DRY WEIGHT
 - pH: 5.5 TO 8.0
 - PHOSPHORUS: NOT TO EXCEED 40 mg/kg
 - SOLUBLE SALTS: MAXIMUM 500 ppm (SOIL/WATER 1:2)



SEQUENCE OF IMPLEMENTATION

ORDER OF OPERATION	ACTIVITY	RESPONSIBLE CONTRACTOR
1	INSTALL TEMPORARY STONE CONSTRUCTION ENTRANCE	SITE
2	REMOVE DESIGNATED TREES AND STUMPS	CLEARING
3	INSTALL SILT FENCING AND INLET PROTECTION AT EXISTING GRATES	SITE
4	TOPSOIL STRIPPING & STOCKPILING	SITE
5	MASS GRADING AND SIDEWALK TRENCHING	SITE
6	TOPSOIL & PERMANENT SEED ¹ LANDSCAPE AREAS REACHING FINAL GRADE. TEMPORARY SEED AREAS BEING LEFT UNWORKED.	SITE
7	INFRASTRUCTURE: - STORM SEWERS (ADD STORM DRAIN INLET PROTECTION AS CATCH BASINS ARE INSTALLED)	SITE
8	INSTALL FOOTERS FOR FENCING AND NET POSTS	SITE
9	UTILITY TRENCHING: ELECTRIC, TELEPHONE, CABLE	SITE/UTIL CO'S
10	FINE GRADING OF COURT PADS AND SIDEWALK AREAS	SITE
11	PAVEMENT AND SIDEWALK INSTALLATION	PAVER
12	PERMANENT SEEDING OF REMAINING DISTURBED AREAS	SITE
13	CONSTRUCT BIOSWALES: PLACE FILTER MEDIA, MULCH & PLANTINGS	SITE
14	REMOVE EROSION & SEDIMENT CONTROL DEVICES**	SITE

APPROXIMATELY 90% OF THE TOPSOIL STRIPPED WILL NOT NEED TO BE USED FOR RESPREADING IN LANDSCAPE AREAS. THEREFORE, IT IS RECOMMENDED THAT TOPSOIL BE DISPOSED OF OR TRANSPORTED OFFSITE FOR PROCESSING AS IT IS GENERATED TO MINIMIZE THE STOCKPILE FOOTPRINT.

THE FILTERING AND MULCH LAYERS OF THE BIOCELLS MUST NOT BE PLACED UNTIL ALL DISTURBED SOILS UPHILL ARE STABILIZED AND GERMINATED.

* WHEN SEEDING IS OCCURRING AFTER SEPTEMBER 15, ALL DISTURBED AREAS MUST BE TEMPORARILY SEEDED AND MULCHED, INCLUDING AREAS FOR UTILITIES.
 ** ALL SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THE SITE IS STABILIZED. VEGETATIVE SURFACE STABILIZATION, WHETHER TEMPORARY OR PERMANENT, SHALL BE CONSIDERED TO BE IN PLACE AND FUNCTIONAL WHEN A UNIFORM RATE OF VEGETATIVE DENSITY (70%) IS OBTAINED.

Onsite Soil Types					
Symbol	Name	Hydrologic Group	Depth to Bedrock	Depth to Seasonal Water Table	Unprotected Erosion Potential
MmB	Mohoning-Urban Land Complex	D	> 5'	1.0' to 2.5'	severe

OWNER/OPERATOR:

CITY OF BROADVIEW HEIGHTS
 9543 BROADVIEW ROAD
 BROADVIEW HEIGHTS, OHIO 44147
 440-838-4705

CONTRACTOR/CO-PERMITTEE: TO BE DETERMINED

RATIONALE:

RUNOFF FROM THE DEVELOPED AREAS OF THIS PROJECT WILL BE CONVEYED TO BIORETENTION SWALES FOR WATER QUALITY TREATMENT. THE LOCATIONS WERE CHOSEN BY NECESSITY FOR DIRECTION OF SURFACE RUNOFF AND AVAILABLE DISCHARGE POINTS. SELECTION OF THIS METHOD IS SUPPORTED BY A GENERAL HISTORY OF EFFECTIVENESS.

NARRATIVE:

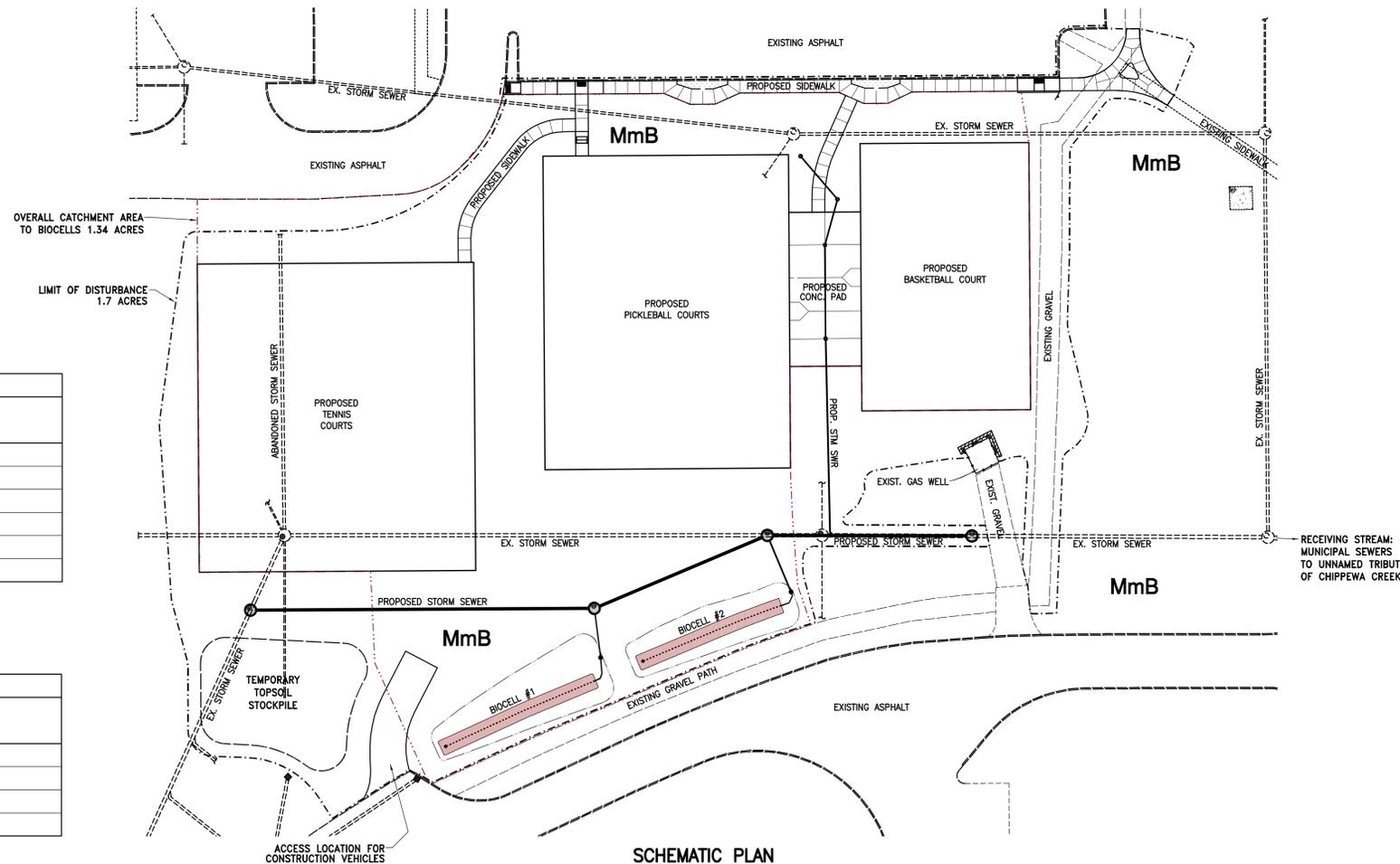
THE TYPE OF CONSTRUCTION ACTIVITY FOR THIS PROJECT WILL BE GRADING, UTILITY INSTALLATION AND PAVING FOR SPORTS ACTIVITIES. CURRENT GROUND COVER IN THE PROJECT AREA CONSISTS OF LAWN AREAS. PREVIOUS LAND USE WAS FOR A STATE MEDICAL FACILITY UNTIL 1996, WHICH HAS SINCE BEEN REDEVELOPED INTO A MUNICIPAL GOVERNMENT CAMPUS.

THE TOTAL AREA OF THE PARCEL IS 65.73 ACRES, WITH 1.7 ACRES EXPECTED TO BE DISTURBED BY EARTHMOVING AND CREATING 0.779 ACRES OF NEW HARD SURFACE.

AVERAGE PRE-CONSTRUCTION RUNOFF COEFFICIENT: 0.30 (PROJECT AREA ONLY)
 AVERAGE POST-CONSTRUCTION RUNOFF COEFFICIENT IS 0.63 (PROJECT AREA ONLY)

CEPA CONSTRUCTION STORMWATER PERMIT NO. 30C15927*AG, ISSUED 03/19/2025.

THE ANTICIPATED CONSTRUCTION PERIOD IS MAY 12, 2025 THROUGH OCTOBER 10, 2025.



EROSION & SEDIMENT CONTROL NOTES:

- ANY SOIL IMPORTED FROM AN OFF-SITE LOCATION SHALL BE CLEAN, HARD FILL AND MUST BE FREE OF CONTAMINATED MATERIALS.
- STREETS AND/OR PAVED AREAS RECEIVING TRAFFIC FROM THE WORK ZONE SHALL BE CLEANED DAILY TO REMOVE TRACKED SEDIMENT. IF APPLICABLE, THE CATCH BASINS NEAREST TO THE CONSTRUCTION AREA SHALL BE CLEANED WEEKLY.
- ALL CONTROLS IN THE DEVELOPMENT AREA SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24-HOUR PERIOD. MAINTENANCE SHALL OCCUR AS DETAILED BELOW. THE APPLICANT IS REQUIRED TO MAKE AN INSPECTION AND MAINTENANCE REPORT FOR EACH INSPECTION AND MAINTAIN A LOG OF REPORTS.

IF THE INTERNAL INSPECTION REVEALS THAT A BMP IS IN NEED OF REPAIR OR MAINTENANCE, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE DAYS OF THE INSPECTION.

IF THE INTERNAL INSPECTION REVEALS THAT A BMP FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THIS ABBREVIATED SWP3 MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN TEN DAYS OF THE INSPECTION.

IF THE INTERNAL INSPECTION REVEALS THAT A BMP HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE, THE CONTROL PRACTICE MUST BE IMPLEMENTED WITHIN TEN DAYS FROM THE DATE OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD MUST CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

- AT THE CONCLUSION OF CONSTRUCTION, SEED AND MULCH ALL AREAS OF DISTURBED EARTH.

SITE STABILIZATION, EITHER PERMANENT OR TEMPORARY, MUST FOLLOW THE REQUIREMENTS AS APPLICABLE IN THE FOLLOWING TABLES:

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE
ANY AREA WITHIN 50 FEET OF A WATERCOURSE AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREA WITHIN 50 FEET OF A WATERCOURSE AND NOT AT FINAL GRADE	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE. IF THAT AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREA, INCLUDING SOIL STOCKPILES, THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A WATERCOURSE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA
DISTURBED AREAS THAT WILL BE IDLE OVER THE WINTER	PRIOR TO WINTER WEATHER ONSET

NOTE: WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED. THESE TECHNIQUES MAY INCLUDE MULCHING, EROSION MATTING OR PLACEMENT OF STONE.

GRADING & STABILIZATION ACTIVITY LOG				
Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased	Date Stabilization Measures Initiated	Description of Stabilization Measure and Location(s)

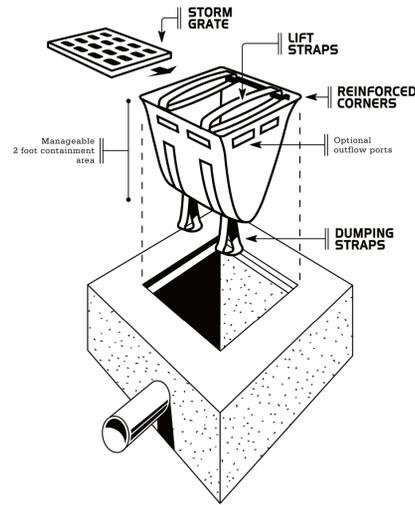
(To be noted by the Contractor as work progresses)

SWP3 AMENDMENT LOG			
Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by (Name & Title)

(To be noted by the Project Engineer as needed)

Specifications
for
Dandy Sack

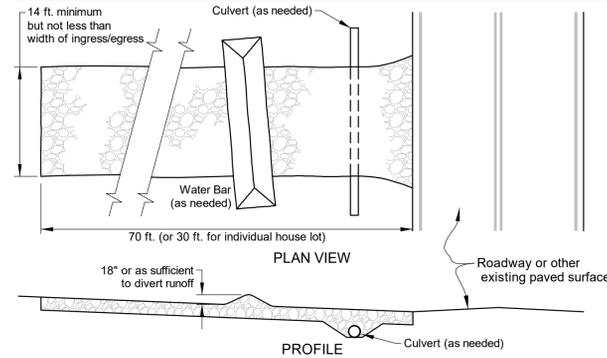
DANDY SACK



PROPERTY	TEST METHOD	UNITS	TEST RESULTS
Tensile Strength	ASTM D4632	lbs	450 x 300
Elongation	ASTM D4632	%	38% x 21%
Trapezoidal Tear	ASTM D4533	lbs	165 x 150
CBR Puncture	ASTM D6241	lbs	1000
HYDRAULIC PROPERTIES:			
Apparent Opening Size (AOS)	ASTM D 4751	US Std Sieve	30
Permittivity	ASTM D 4491	sec ²	4.9
Water Flow Rate	ASTM 4491	gal/min/ft ²	365
% Open Area (POA)	COE - 22125-86	%	29
UV Resistance (% Retained @ 2500 hrs)	ASTM D 4355	%	70
Color			Orange ¹

¹The color orange is a trademark of Dandy Products, Inc. The property values listed above are effective April 2022 and are subject to change without notice.

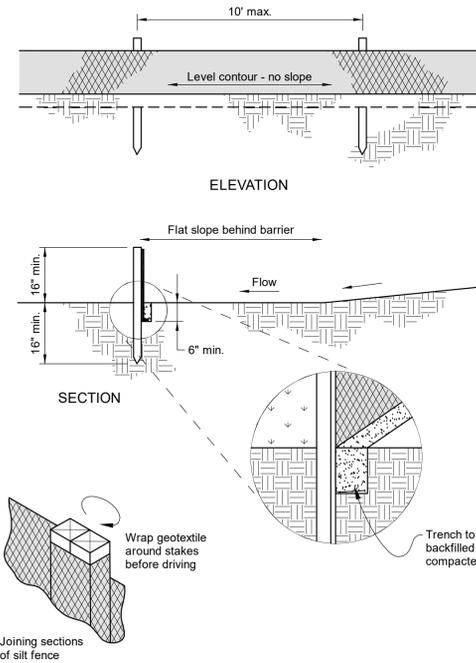
Specifications
for
Construction Entrance



- Stone Size - ODOT #2 (1.5-2.5 inch) stone shall be used, or recycled concrete equivalent.
- Length - The construction entrance shall be as long as required to stabilize high-traffic areas but not less than 70 ft. (exception: apply 30 ft. minimum on single residence lots).
- Thickness - The stone layer shall be at least 6 inches thick for light-duty entrances or at least 10 inches for heavy-duty use.
- Width - The entrance shall be at least 14 feet wide, but not less than the full width at points where ingress or egress occurs.
- Geotextile - A geotextile shall be laid over the entire area prior to placing stone and shall be composed of strong rot-proof polymeric fibers meeting the following specifications:

Minimum Tensile Strength	200 lb.
Minimum Puncture Strength	80 psi
Minimum Tear Strength	50 lb.
Minimum Burst Strength	320 psi
Minimum Elongation	20%
Equivalent Opening Size	EOS < 0.6 mm
Permittivity	1x10 ⁻⁹ cm/sec
- Timing - The construction entrance shall be installed as soon as practical before major grading activities.
- Culvert - A culvert shall be constructed under the entrance if needed to prevent surface runoff from flowing across the entrance or to prevent runoff from being directed out onto paved surfaces.
- Water Bar - A diversion shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing across the entrance and out onto paved surfaces.
- Maintenance - Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
- Construction Entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction site shall be restricted from muddy areas.
- Removal - The entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent roadway or entrance.

Specifications
for
Silt Fence



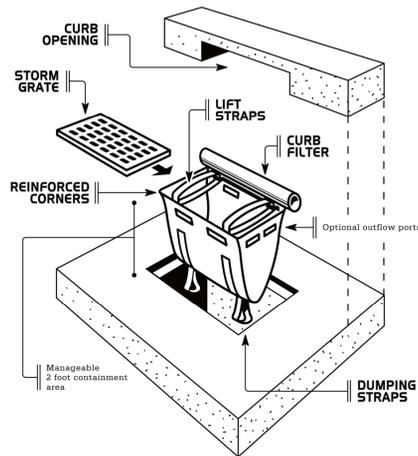
Specifications
for
Silt Fence

- Silt fence shall be constructed before upslope land disturbance begins.
 - All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions that may carry small concentrated flows to the silt fence are dissipated along its length.
 - Ends of the silt fences shall be brought upslope slightly so that water ponded by the silt fence will be prevented from flowing around the ends.
 - Silt fence shall be placed on the flattest area available.
 - Where possible, vegetation shall be preserved for 5 feet (or as much as possible) upslope from the silt fence. If vegetation is removed, it shall be reestablished within 7 days from the installation of the silt fence.
 - The height of the silt fence shall be a minimum of 16 inches above the original ground surface.
 - The silt fence shall be placed in an excavated or sliced trench cut a minimum of 6 inches deep. The trench shall be made with a trencher, cable laying machine, slicing machine or other suitable device which will ensure an adequately uniform trench depth.
 - The silt fence shall be placed with the stakes on the downslope side of the geotextile. A minimum of 8 inches of geotextile must be below the ground surface. Excess material shall lay on the bottom of the 6-inch deep trench. The trench shall be backfilled and compacted on both sides of the fabric.
 - Seams between sections of silt fence shall be spliced together only at a support post with a minimum 6-inch overlap prior to driving into the ground (see detail).
 - Maintenance - Silt fence shall allow runoff to pass only as diffuse flow through the geotextile. If runoff overtops the silt fence, flows under the fabric or around the ends, or in any other way allows a concentrated flow discharge, one of the following shall be performed, as appropriate:
 - layout of the silt fence shall be changed
 - accumulated sediment shall be removed
 - other practices shall be installed.
- Sediment deposits shall be routinely removed when the deposit reaches approximately one-half of the height of the silt fence.
- Silt fences shall be inspected after each rainfall and at least daily during a prolonged rainfall. The location of existing silt fence shall be reviewed daily to ensure its proper location and effectiveness. If damaged, the silt fence shall be repaired immediately.
- Criteria for Silt Fence Materials**
- Fence Posts - The length shall be a minimum of 32 inches. Wood posts will be 2-by-2-in. nominally dimensioned hardwood of sound quality. They shall be free of knots, splits and other visible imperfections. The maximum spacing between posts shall be 10 feet. Posts shall be driven a minimum 16 inches into the ground, where possible. Otherwise, the posts shall be adequately secured to prevent overturning of the fence due to sediment/water loading.
 - Silt Fence Fabric - See chart below.

Minimum Criteria for Silt Fence Fabric		
Fabric Properties	Values	Test Method
Minimum Tensile Strength	120 lb.	ASTM D 4632
Maximum Elongation @ 60 lbs.	50%	ASTM D 4632
Minimum Puncture Strength	50 lb.	ASTM D 4833
Minimum Tear Strength	40 lb.	ASTM D 4533
Apparent Opening Size	≥ 0.84 mm	ASTM D 4751
Minimum Permittivity	1x10 ⁻⁹ sec ⁻¹	ASTM D 4491
UV Exposure Strength Retention	70%	ASTM G 4355

Specifications
for
Dandy Curb Sack

DANDY CURB SACK



PROPERTY	TEST METHOD	UNITS	TEST RESULTS
Tensile Strength	ASTM D4632	lbs	450 x 300
Elongation	ASTM D4632	%	38% x 21%
Trapezoidal Tear	ASTM D4533	lbs	165 x 150
CBR Puncture	ASTM D6241	lbs	1000
HYDRAULIC PROPERTIES:			
Apparent Opening Size (AOS)	ASTM D 4751	US Std Sieve	30
Permittivity	ASTM D 4491	sec ²	4.9
Water Flow Rate	ASTM 4491	gal/min/ft ²	365
% Open Area (POA)	COE - 22125-86	%	29
UV Resistance (% Retained @ 2500 hrs)	ASTM D 4355	%	70
Color			Orange ¹

¹The color orange is a trademark of Dandy Products, Inc. The property values listed above are effective April 2022 and are subject to change without notice.

Specifications
for
Permanent Seeding

- Site Preparation**
- Subsoiler, plow or other implement shall be used to reduce soil compaction and allow maximum infiltration. Maximizing infiltration will help control both runoff rate and water quality. Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
 - The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
 - Topsoil shall be applied where needed to establish vegetation.
- Seedbed Preparation**
- Lime: Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 pounds per 1,000 sq. ft. or 2 tons per acre.
 - Fertilizer: Fertilizer shall be applied as recommended by a soil test. In place of a soil test, fertilizer shall be applied at a rate of 25 pounds per 1,000 sq. ft. or 1000 pounds per acre of a 10-10-10 or 12-12-12 analyses.
 - The lime and fertilizer shall be worked into the soil with a disc harrow, spring-tooth harrow or other similar field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.
- Seeding Dates and Soil Conditions**
- Seeding should be done March 1 to May 31 or August 1 to September 30. If seeding occurs outside of the above-specified dates, additional mulch and irrigation may be required to ensure a minimum of 80% germination. Tillage for seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.
- Dormant Seeding**
- Seedings should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
- Mulching**
- Mulch material shall be applied immediately after seeding. Dormant seeding shall be mulched. 100% of the ground surface shall be covered with an approved material.
 - Materials:
 - Straw: If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons per acre or 90 pounds (two to three bales) per 1,000 sq. ft. The mulch shall be spread uniformly by hand or mechanically applied so the soil surface is covered. For uniform distribution of hand-spread mulch, divide the area into approximate 1000 sq. ft. sections and spread two 45-lb. bales of straw in each section.
 - Hydroseeders: If wood cellulose fiber is used, it shall be applied at 2,000 lb./ac. or 46 lb./1,000 sq. ft. Other acceptable mulches include rolled erosion control matings or blankets applied according to manufacturer recommendations or wood chips applied at 6 tons / acre.
- (continued)

Specifications
for
Permanent Seeding

- Straw and Mulch Anchoring Methods

Synthetic Binders: Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petrosol, Terra Tack or equivalent may be used at rates specified by the manufacturer.

Wood Cellulose Fiber: Wood cellulose fiber shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water with the mixture containing a maximum of 50 pounds cellulose per 100 gallons of water.

Irrigation: Permanent seeding shall include irrigation to establish vegetation during dry weather or on adverse site conditions which require adequate moisture for seed germination and plant growth.

Irrigation rates shall be monitored to prevent erosion and damage to seeded areas from excessive runoff.

Asphalt Emulsion: Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gallons per acre.

	Seed Mix	Seeding Rate		
		(lb./acre)	(lb./1000 Sq. Ft.)	
General Use	Creeping Red Fescue	20 - 40	1/2 to 1	For close mowing & waterways with < 2.0 ft./sec. velocity
	Domestic Ryegrass	10 - 20	1/4 to 1/2	
	Kentucky Bluegrass	20 - 40	1/2 to 1	
	Tall Fescue	40 - 50	1 to 1 1/4	
Steep Banks & Cut Slopes	Turf-type (Dwarf) Fescue	90	2 1/4	No later than August
	Tall Fescue	40 - 50	1 to 1 1/4	
	Crown Vetch	10-20	1/4 to 1/2	
	Tall Fescue	20-30	1/2 to 3/4	
Road Ditches & Swales	Flat Pea	20 - 25	1/2 to 3/4	
	Tall Fescue	20 - 30	1/2 to 3/4	
Lawns	Tall Fescue	40 - 50	1 to 1 1/4	
	Turf-type (Dwarf) Fescue	90	2 1/4	
	Kentucky Bluegrass	5	0.1	
	Perennial Ryegrass	100 - 120	2	
	Kentucky Bluegrass	100 - 120	2	For shaded areas
	Creeping Red Fescue	100 - 120	1 1/2	

Non-Sediment
Pollution Controls

- No solid or liquid waste, including building materials or their packaging, shall be discharged in storm water runoff.
- Concrete trucks are not permitted to wash directly into storm sewers, streams or drainage channels.
- Off-site tracking of sediment by construction vehicles must be minimized.
- Waste disposal via open burning is prohibited where not permitted under the State of Ohio open burning laws.
- Contaminated soils or soils where construction site chemicals or petroleum products have been spilled must be treated and/or disposed of at an Ohio EPA-approved solid waste management facility or a hazardous waste treatment, storage or disposal facility (TSDF).
- Storm water that comes in contact with contaminated soils or solid and industrial waste must be collected and disposed of as a wastewater.
- Fuel tanks and drums or other containers holding construction site chemicals must be stored within a diked area.
- Sediment-laden trench or ground water must pass through a sediment-settling pond or be dewatered in place using a sump pit, filter bag or other comparable method prior to being discharged from the site.
- Trench and ground water free from sediment or other pollutants may be discharged without treatment provided this water does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.
- No toxic or hazardous wastes shall be disposed into storm drains, septic tanks or by burying, burning or mixing the wastes.
- Provide covered and leak-proof containers to store debris, trash, and hazardous or petroleum wastes for proper disposal.
- All construction and demolition debris waste must be disposed of in an Ohio EPA approved C&DD landfill as required by Ohio Revised Code 3714.
- A spill-prevention and countermeasures (SPCC) plan must be developed for sites with one above-ground storage tank of 660 gallons or more, total above-ground storage of 1,330 gallons, or below-ground storage of 42,000 gallons of fuel.
- Process wastewaters (equipment washing, leachate and concrete wash-outs) must be collected and disposed of at a publicly-owned treatment works.
- Use protected storage areas for industrial and construction materials to minimize exposure of such materials to storm water.
- Petroleum waste spills of 25 gallons or more require notification of Ohio EPA (800-282-9378), local fire department (and if applicable) the local emergency planning committee within 30 minutes. For smaller spills of petroleum-based or concrete curing compounds, consult manufacturers' special handling procedures.

TENNIS COURT PERIMETER 10-FOOT CHAIN-LINK FENCE

CHAIN-LINK FENCE AND FRAMEWORK, INCLUDING FOUNDATION AND ANCHORAGE, SHALL WITHSTAND 90-MPH WIND LOADS AND STRESSES FOR A 10-FOOT FENCE HEIGHT AND UNDER EXPOSURE CONDITIONS ACCORDING TO CLFMI WLG 2445, BASED ON MESH AND PATTERN SPECIFIED.

FENCE SHALL BE 9 GAUGE, 2" MESH, POLYMER-COATED PER ASTM F 668, CLASS 2A OVER ZINC COATED STEEL WIRE. MESH SHALL BE KNUCKLED AT BOTH SELVAGES.

POSTS AND RAILS SHALL CONFORM TO ASTM F 1043. FENCE SHALL HAVE A TOP, BOTTOM, AND MIDDLE RAIL. ALL POSTS SHALL HAVE CAPS. POST AND RAILS SHALL BE ZINC COATED PRIOR TO POLYMER COATING.

FENCE COLOR, POSTS, RAILS, AND MESH, SHALL BE BLACK AND CONFORM TO ASTM F 943.

A LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED WITH A MAXIMUM RESISTANCE-TO-GROUND VALUE OF 25 OHMS AT EACH GROUNDING LOCATION ALONG FENCE UNDER NORMAL CONDITIONS.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

WINDSCREEN NOTES:

THE CONTRACTOR SHALL INSTALL 9-FOOT HIGH WIND SCREEN ON THE BOTTOM OF THE TENNIS COURT PERIMETER 10-FOOT CHAIN LINK FENCE.

WINDSCREEN SHALL BE BLACK IN COLOR, UV-RESISTANT, MILDEW INHIBITING, AND ALLOW A MINIMUM OF 20% WIND PASS WITH 80% SHADE FACTOR. SCREEN SHALL BE GROMMETED AT 12-INCH INTERVALS ON ALL FOUR SIDES.

PRODUCT SPECIFIED: TUFFY WINDSCREEN MANUFACTURED BY BSN SPORTS, MODEL #1285598 OR APPROVED EQUAL.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

LAYOUT NOTES:

DIMENSIONS ARE TO THE OUTSIDE EDGE OF LINES.

INES SHALL BE 2 INCHES WIDE. TEXTURED LINE PAINT SHALL COMPLY WITH THE ACRYLIC TEXTURE SYSTEM. COLOR SHALL BE WHITE.

NET HEIGHT AT POSTS SHALL BE 42 INCHES.

NET HEIGHT AT CENTER SHALL BE 36 INCHES.

NET SHALL BE 42 INCHES IN HEIGHT, COMPRISED OF 3.5 MM BRAIDED POLYETHYLENE AND A TOP RIDGE WHITE VINYL HEADBAND WITH STEEL CABLE COMPATIBLE WITH POST'S NET-TIGHTENING SYSTEM. NET SHALL HAVE A TAPERED CENTER WITH CENTER STRAP AND INCLUDE A FIBERGLASS DOWEL ON EACH END OF THE NET.

THE CONTRACTOR SHALL SUBMIT NET SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

TENNIS COURT TEXTURED ACRYLIC COLOR SURFACE NOTES:

THE CONTRACTOR (OR SUBCONTRACTOR) SHALL SUBMIT QUALIFICATIONS OF A MINIMUM FIVE PREVIOUS PROJECTS COMPLETED AND BE AN AUTHORIZED APPLICATOR OF THE SPECIFIED SURFACE SYSTEM.

PRIOR TO APPLYING COLOR SURFACING, THE CONTRACTOR SHALL SPRAY THE ASPHALT SURFACE WITH WATER TO CHECK FOR CONTINUOUS SHEET FLOW DRAINAGE. ANY PONDING AREAS FOUND MUST BE CORRECTED.

INSTALL TEXTURED ACRYLIC COLOR SURFACING WHICH CONTAINS ROUNDED, NON-AGGRESSIVE SILICA SAND FOR THE TENNIS COURT AND PERIMETER AREAS PER MANUFACTURER'S SPECIFICATIONS.

MAIN COURT PLAY AREA SHALL BE LAYKOLD MIAMI OPEN BISCAYNE BLUE IN COLOR.

COURT PERIMETER SHALL BE LAYKOLD GRASS GREEN IN COLOR.

FINAL COLOR SELECTION TO BE SUBMITTED FROM THE FULL RANGE OF COLORS AND APPROVED BY THE CITY.

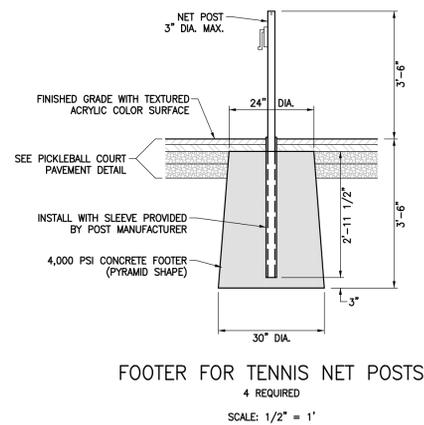
ALL SURFACE COATINGS SHALL BE INTENDED FOR COMPETITIVE SPORTS USE, AND CONFORM TO THE GUIDELINES OF THE ASBA.

ALL SURFACE COATING PRODUCTS SHALL BE SUPPLIED BY A SINGLE MANUFACTURER.

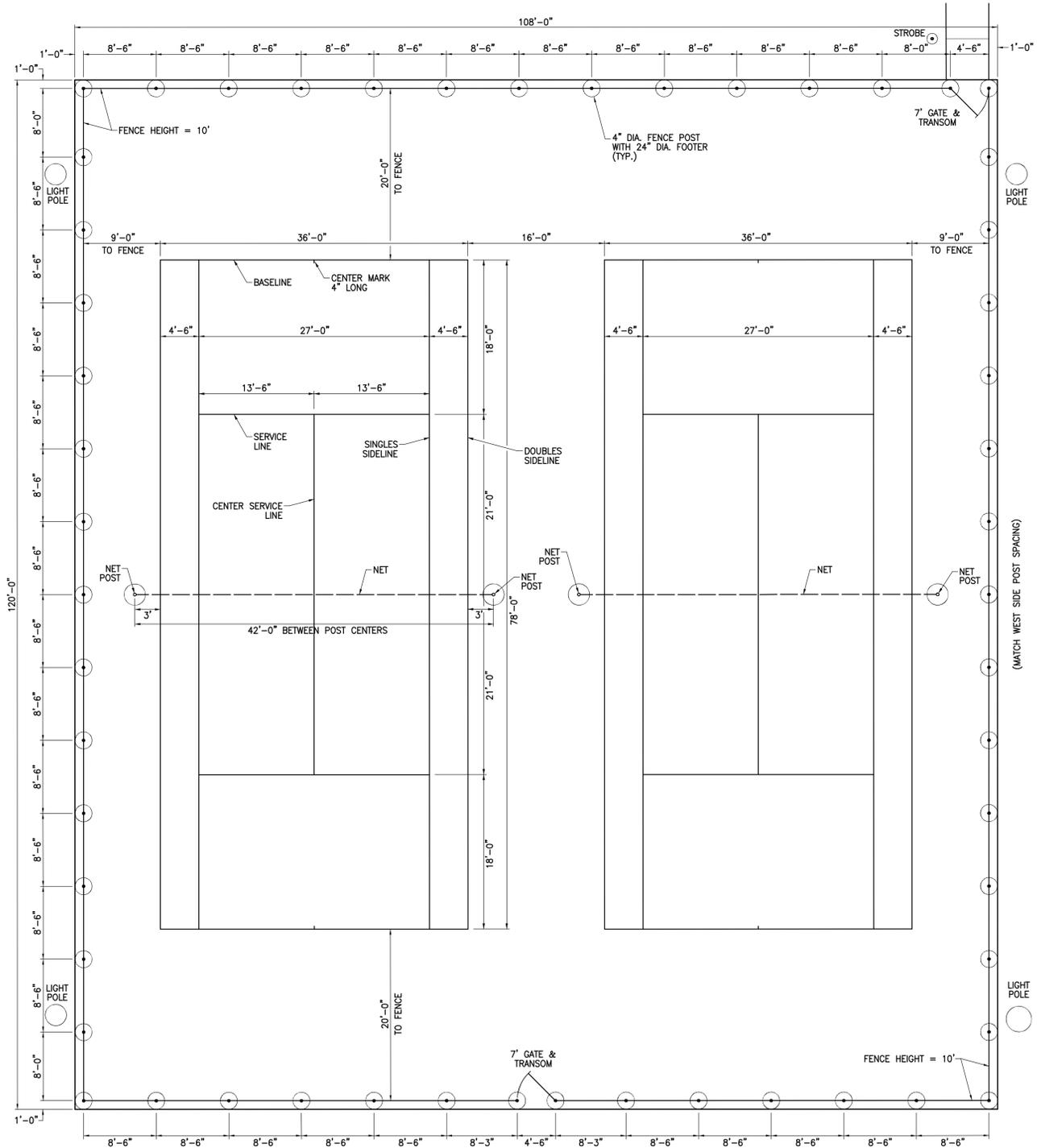
THE CONTRACTOR SHALL INSTALL A MINIMUM 4 COATS OF SURFACING.

PRODUCT EXAMPLE: LAYKOLD SURFACING PRODUCT SYSTEM MANUFACTURED BY LAYKOLD OR APPROVED EQUAL.

THE CONTRACTOR SHALL SUBMIT CURRENT MATERIAL SAFETY DATA SHEETS (MSDS), MANUFACTURER'S SPECIFICATIONS FOR COMPONENTS, COLOR CHART, AND WARRANTY DOCUMENTATION FOR CITY APPROVAL PRIOR TO ORDERING.



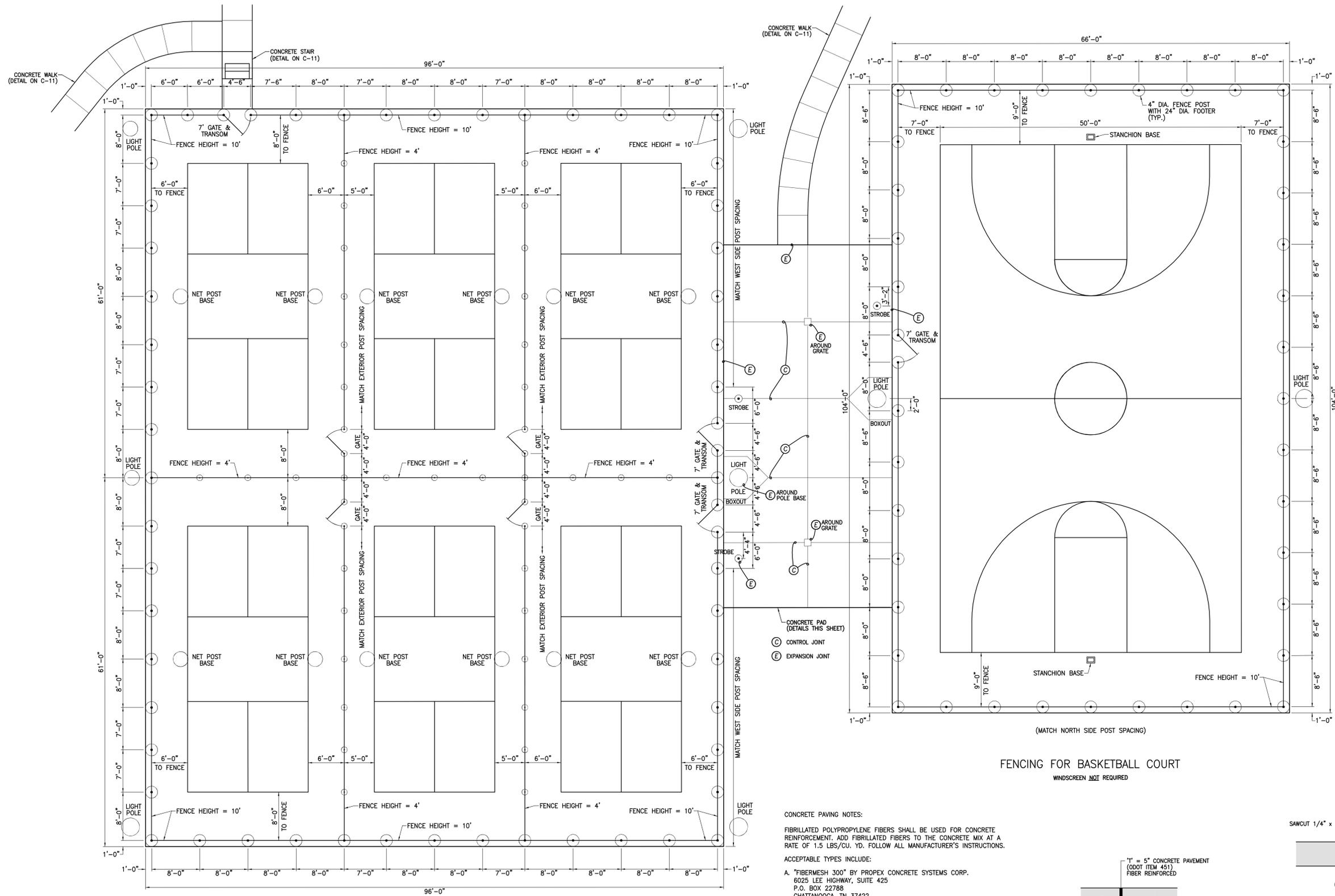
FOOTER FOR TENNIS NET POSTS
 4 REQUIRED
 SCALE: 1/2" = 1'



TENNIS COURT FENCE & LINE LAYOUT

INCLUDE WINDSCREEN ALONG PERIMETER (SEE NOTES THIS SHEET)



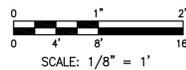
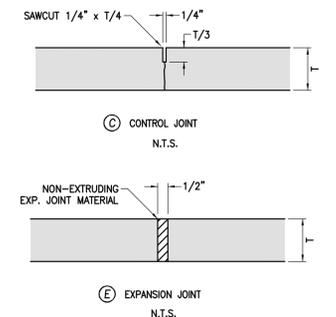
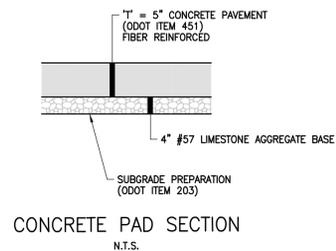


FENCING FOR BASKETBALL COURT
 WINDSCREEN NOT REQUIRED

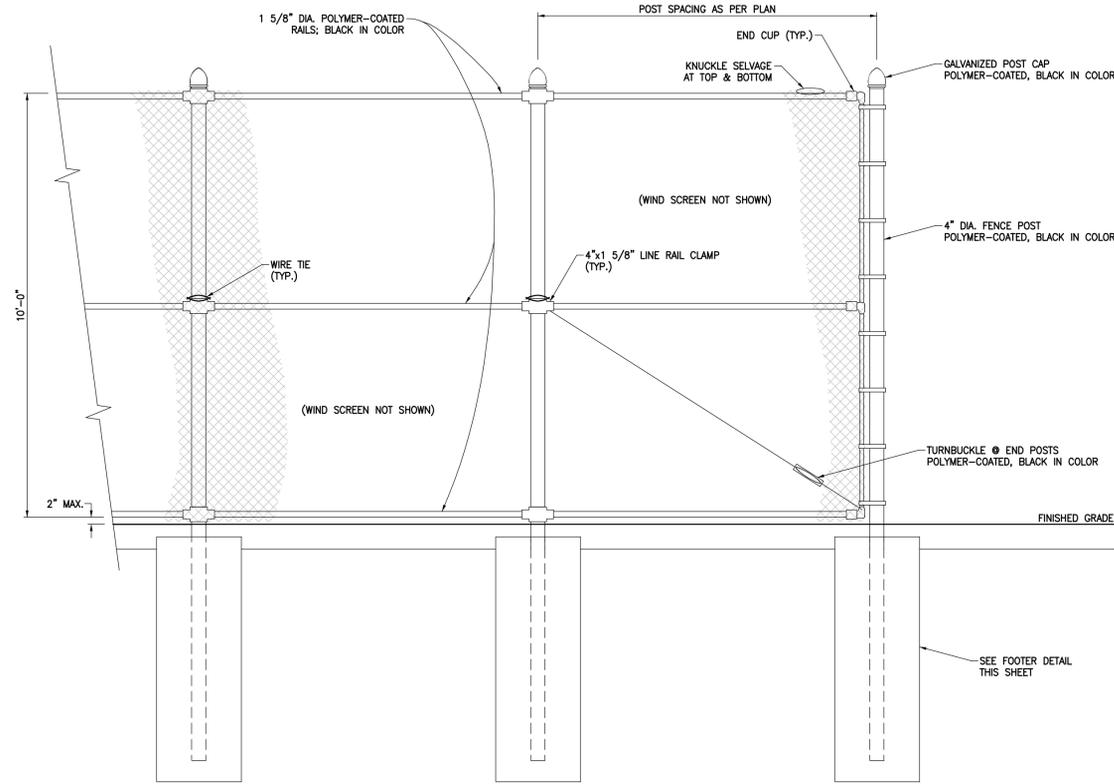
CONCRETE PAVING NOTES:
 FIBRILLATED POLYPROPYLENE FIBERS SHALL BE USED FOR CONCRETE REINFORCEMENT. ADD FIBRILLATED FIBERS TO THE CONCRETE MIX AT A RATE OF 1.5 LBS/CU. YD. FOLLOW ALL MANUFACTURER'S INSTRUCTIONS.

- ACCEPTABLE TYPES INCLUDE:
- A. "FIBERMESH 300" BY PROPEX CONCRETE SYSTEMS CORP.
 6025 LEE HIGHWAY, SUITE 425
 P.O. BOX 22788
 CHATTANOOGA, TN 37422
 800-621-1273
 - B. "FIBERSTRAND F" BY THE EUCLID CHEMICAL COMPANY
 19218 REDWOOD ROAD
 CLEVELAND, OH 44110
 216-531-9222

EXPANSION JOINTS SHALL BE SEALED. CONTROL JOINTS ARE NOT REQUIRED TO BE SEALED.
 JOINT SEALANTS SHALL BE TWO PART COLD-APPLIED SEALANT: MANUFACTURER'S STANDARD, POURABLE, CHEMICALLY CURING, ELASTOMERIC SEALANT COMPLYING WITH FS SS-S-200.



FENCING FOR PICKLEBALL COURTS
 INCLUDE WINDSCREEN ALONG PERIMETER (SEE NOTES ON C-9)



POLYMER COATINGS PER ASTM F 668, CLASS 2A
 WIND SCREEN REQUIRED
10' FENCE DETAIL
 SCALE: 1/2" = 1'

PICKLEBALL PERIMETER 10-FOOT CHAIN-LINK FENCE AND GATES:

CHAIN-LINK FENCE AND FRAMEWORK, INCLUDING FOUNDATION AND ANCHORAGE, SHALL WITHSTAND 90-MPH WIND LOADS AND STRESSES FOR A 10-FOOT FENCE HEIGHT AND UNDER EXPOSURE CONDITIONS ACCORDING TO CLFM WLG 2445, BASED ON MESH AND PATTERN SPECIFIED.

FENCE SHALL BE 9 GAUGE, 2" MESH, POLYMER-COATED PER ASTM F 668, CLASS 2A OVER ZINC COATED STEEL WIRE. MESH SHALL BE KNUCKLED AT BOTH SELVAGES.

POSTS AND RAILS SHALL CONFORM TO ASTM F 1043. FENCE SHALL HAVE A TOP, BOTTOM, AND MIDDLE RAIL. ALL POSTS SHALL HAVE CAPS. POST AND RAILS SHALL BE ZINC COATED PRIOR TO POLYMER COATING.

FENCE COLOR, POSTS, RAILS, AND MESH, SHALL BE BLACK AND CONFORM TO ASTM F 943.

A LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED WITH A MAXIMUM RESISTANCE-TO-GROUND VALUE OF 25 OHMS AT EACH GROUNDING LOCATION ALONG FENCE UNDER NORMAL CONDITIONS.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

WINDSCREEN NOTES:

THE CONTRACTOR SHALL INSTALL 9-FOOT HIGH WIND SCREEN ON THE BOTTOM OF THE PICKLEBALL COURT PERIMETER 10-FOOT CHAIN LINK FENCE.

WINDSCREEN SHALL BE BLACK IN COLOR, UV-RESISTANT, MILDEW INHIBITING, AND ALLOW A MINIMUM OF 20% WIND PASS WITH 80% SHADE FACTOR. SCREEN SHALL BE GROMMETED AT 12-INCH INTERVALS ON ALL FOUR SIDES.

PRODUCT SPECIFIED: TUFFY WINDSCREEN MANUFACTURED BY BSN SPORTS, MODEL #1285598 OR APPROVED EQUAL.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

PICKLEBALL INTERIOR 4' FENCE AND GATES:

CHAIN-LINK FENCE AND FRAMEWORK, INCLUDING FOUNDATION AND ANCHORAGE, SHALL WITHSTAND 90-MPH WIND LOADS AND STRESSES FOR A 4-FOOT FENCE HEIGHT AND UNDER EXPOSURE CONDITIONS ACCORDING TO CLFM WLG 2445, BASED ON MESH AND PATTERN SPECIFIED.

FENCE SHALL BE 9 GAUGE, 2" MESH, POLYMER-COATED PER ASTM F 668, CLASS 2A OVER ZINC COATED STEEL WIRE. MESH SHALL BE KNUCKLED AT BOTH SELVAGES.

POST AND RAILS SHALL CONFORM TO ASTM F 1043. FENCE SHALL HAVE A TOP AND BOTTOM RAIL. ALL POSTS SHALL HAVE CAPS. POSTS AND RAILS SHALL BE ZINC COATED PRIOR TO POLYMER COATING.

GATES SHALL BE ON 360-DEGREE HINGE, WITH LATCH PERMITTING OPERATION FROM EITHER SIDE OF THE GATE.

FENCE COLOR, POSTS, RAILS, GATES, AND MESH SHALL BE BLACK AND CONFORM TO ASTM F 943.

A LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED WITH A MAXIMUM RESISTANCE-TO-GROUND VALUE OF 25 OHMS AT EACH GROUNDING LOCATION ALONG FENCE UNDER NORMAL CONDITIONS.

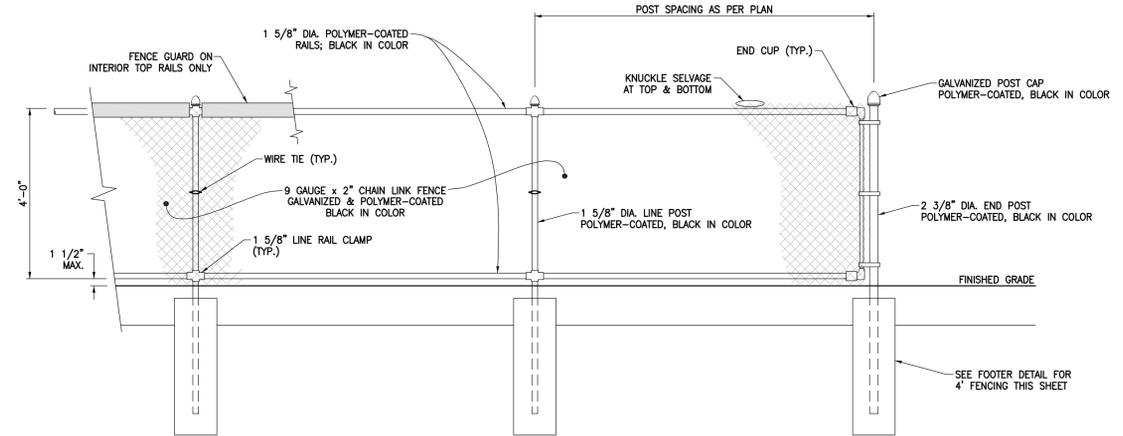
THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

FENCE GUARD NOTES:

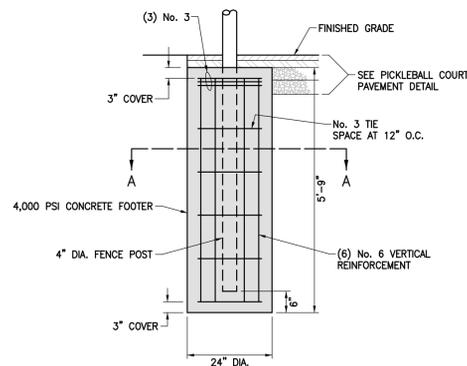
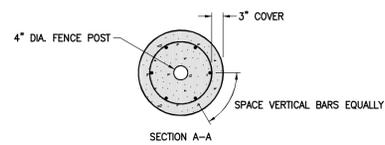
FENCE GUARD SHALL BE 3" W x 4" H CONSTRUCTED OF UV-RESISTANT POLYETHYLENE WITH PRE-DRILLED HOLES AND INCLUDE TIES FOR INSTALLATION.

FENCE GUARD SHALL BE GREEN OR BLACK IN COLOR. FINAL SELECTION TO BE DETERMINED BY THE CITY.

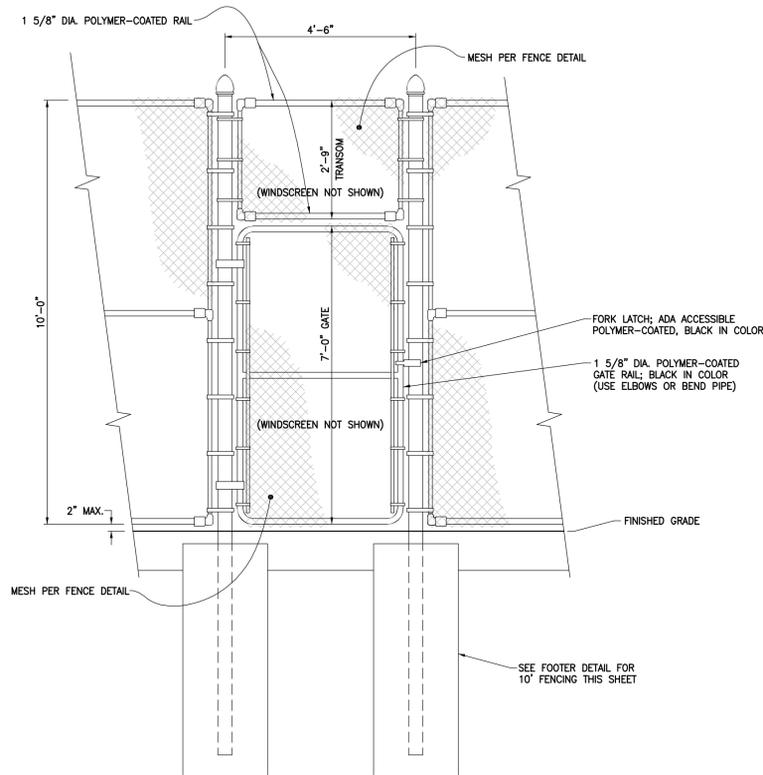
PRODUCT EXAMPLE: SAF-TOP FENCE GUARDS MANUFACTURED BY BSN SPORTS, MODEL #1234893 OR APPROVED EQUAL.



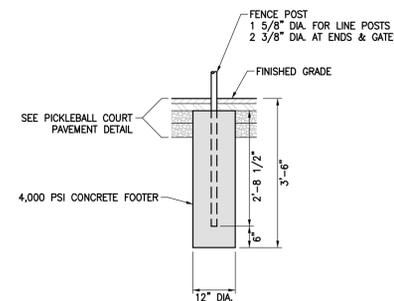
POLYMER COATINGS PER ASTM F 668, CLASS 2A
 WINDSCREEN NOT REQUIRED ON 4' FENCE
INTERNAL 4' FENCE DETAIL (PICKLEBALL ONLY)
 SCALE: 1/2" = 1'



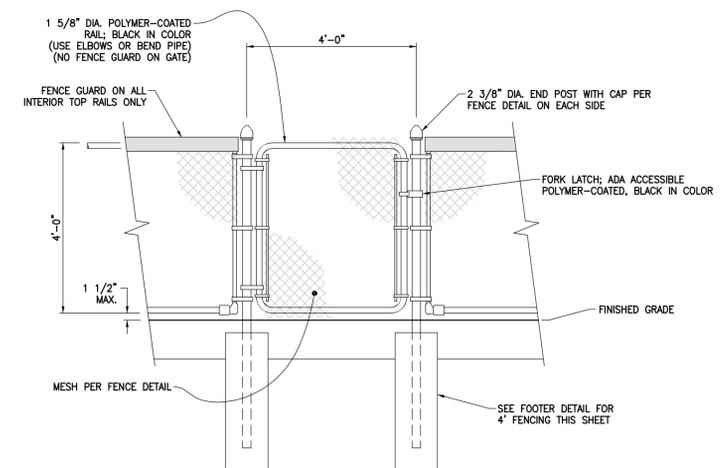
FOOTER FOR 10' FENCE POST
 SCALE: 1/2" = 1'



7' GATE w/TRANSOM
 SCALE: 1/2" = 1'



FOOTER FOR 4' FENCE POST
 SCALE: 1/2" = 1'



INTERNAL 4' GATE DETAIL (PICKLEBALL ONLY)
 SCALE: 1/2" = 1'

PICKLEBALL COURT TEXTURED ACRYLIC COLOR SURFACE NOTES:

THE CONTRACTOR (OR SUBCONTRACTOR) SHALL SUBMIT QUALIFICATIONS OF A MINIMUM FIVE PREVIOUS PROJECTS COMPLETED AND BE AN AUTHORIZED APPLICATOR OF THE SPECIFIED SURFACE SYSTEM.

PRIOR TO APPLYING COLOR SURFACING, THE CONTRACTOR SHALL SPRAY THE ASPHALT SURFACE WITH WATER TO CHECK FOR CONTINUOUS SHEET FLOW DRAINAGE. ANY PONDING AREAS FOUND MUST BE CORRECTED.

INSTALL TEXTURED ACRYLIC COLOR SURFACING WHICH CONTAINS ROUNDED, NON-AGGRESSIVE SILICA SAND FOR THE PICKLEBALL COURT AND PERIMETER AREAS PER MANUFACTURER'S SPECIFICATIONS.

MAIN COURT PLAY AREA SHALL BE LAYKOLD MIAMI OPEN BISCAYNE BLUE IN COLOR.

COURT PERIMETER SHALL BE LAYKOLD GRASS GREEN IN COLOR.

NON-VOLLEY ZONE SHALL BE LAYKOLD ARCTIC IN COLOR.

FINAL COLOR SELECTION TO BE SUBMITTED FROM THE FULL RANGE OF COLORS AND APPROVED BY THE CITY.

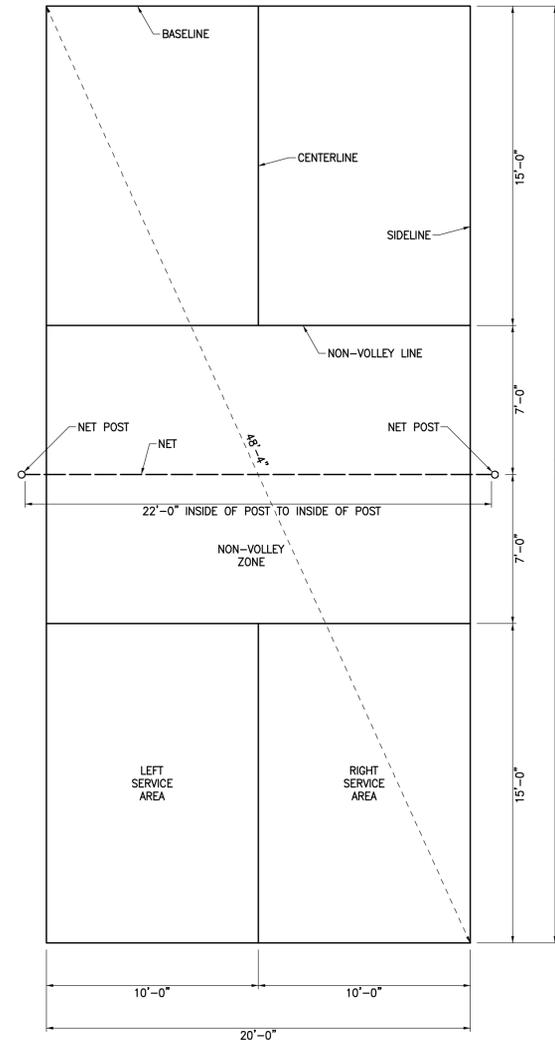
ALL SURFACE COATINGS SHALL BE INTENDED FOR COMPETITIVE SPORTS USE, AND CONFORM TO THE GUIDELINES OF THE ASBA.

ALL SURFACE COATING PRODUCTS SHALL BE SUPPLIED BY A SINGLE MANUFACTURER.

THE CONTRACTOR SHALL INSTALL A MINIMUM 4 COATS OF SURFACING.

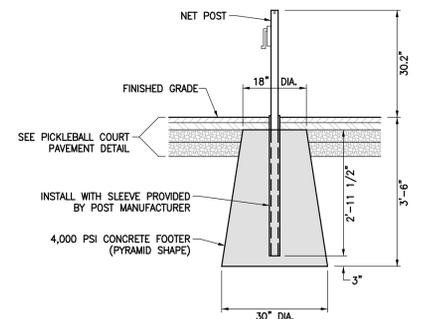
PRODUCT SPECIFIED: LAYKOLD SURFACING PRODUCT SYSTEM MANUFACTURED BY LAYKOLD OR APPROVED EQUAL.

THE CONTRACTOR SHALL SUBMIT CURRENT MATERIAL SAFETY DATA SHEETS (MSDS), MANUFACTURER'S SPECIFICATIONS FOR COMPONENTS, COLOR CHART, AND WARRANTY DOCUMENTATION FOR CITY APPROVAL PRIOR TO ORDERING.

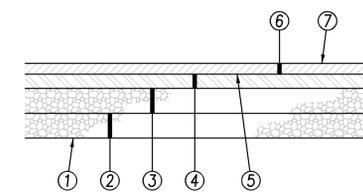


DIMENSIONS ARE TO THE OUTSIDE EDGE OF LINES.
 LINES SHALL BE 2 INCHES WIDE. TEXTURED LINE PAINT SHALL COMPLY WITH THE ACRYLIC TEXTURE SYSTEM. COLOR SHALL BE WHITE.
 NET HEIGHT AT SIDELINES SHALL BE 36 INCHES.
 NET HEIGHT AT CENTER SHALL BE 34 INCHES.
 NET SHALL BE 31 INCHES IN HEIGHT, COMPRISED OF 3 MM BRAIDED POLYETHYLENE AND A TOP RIDGE WHITE VINYL HEADBAND WITH STEEL CABLE COMPATIBLE WITH POST'S NET-TIGHTENING SYSTEM. A 1/2 INCH FIBERGLASS DOWEL SHALL BE INCLUDED ON EACH END OF THE NET.
 PRODUCT EXAMPLE: WILSON PICKLEBALL NET MANUFACTURED BY WILSON SPORTING GOODS OR APPROVED EQUAL.
 THE CONTRACTOR SHALL SUBMIT NET SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

PICKLEBALL COURT PLAYING LINE LAYOUT
 SCALE: 1/4" = 1'



FOOTER FOR PICKLEBALL NET POSTS
 12 REQUIRED
 SCALE: 1/2" = 1'

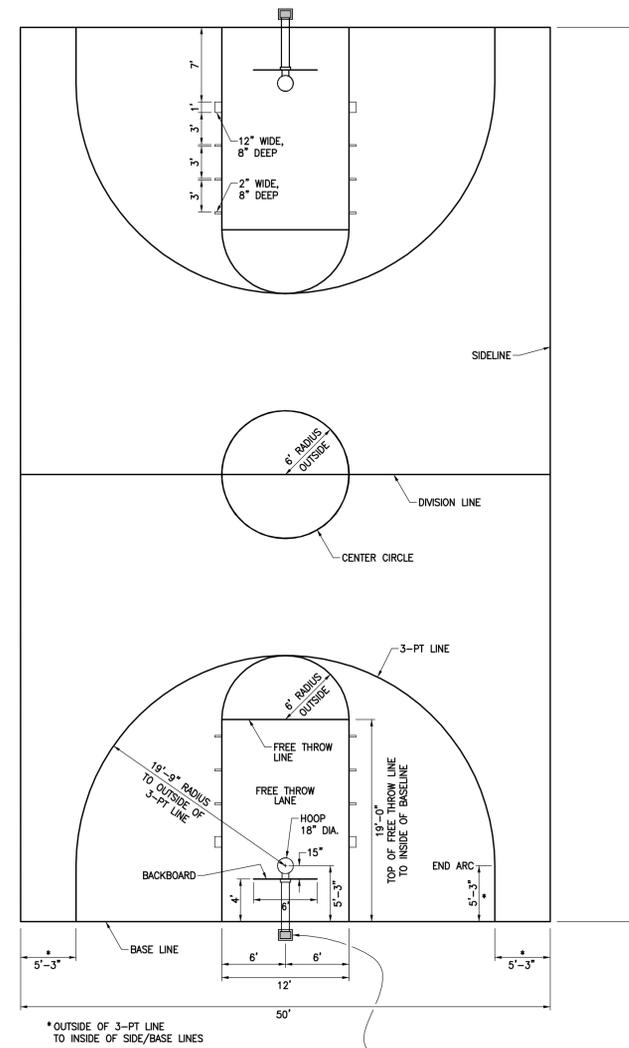


- ① ODOT ITEM 203 SUBGRADE COMPACTION
- ② 3.5" ODOT ITEM 304 AGGREGATE BASE (#4 STONE)
- ③ 3.5" ODOT ITEM 304 AGGREGATE BASE (#304 COMPACTED LIMESTONE)
- ④ 2" ODOT ITEM 441 TYPE 2 ASPHALT INTERMEDIATE COURSE
- ⑤ ODOT ITEM 407 TACK COAT
- ⑥ 1.5" ODOT ITEM 441 TYPE 1 ASPHALT SURFACE COURSE
- ⑦ TEXTURED ACRYLIC COLOR SURFACING (SEE NOTES THIS SHEET)

APPLY LIQUID ASPHALT TO SEAL ALL JOINTS BETWEEN CONCRETE AND ASPHALT AND WHERE PROPOSED ASPHALT MEETS EXISTING ASPHALT, INCLUDING SAW CUT JOINTS.

NO RECYCLED MATERIAL PERMITTED FOR ASPHALT SURFACE OR INTERMEDIATE COURSE. ALL LIMESTONE AGGREGATE SHALL BE CLEAN, 100% VIRGIN CRUSHED LIMESTONE.

ASPHALT PAVEMENT SECTION FOR PICKLEBALL AND TENNIS COURTS
 N.T.S.



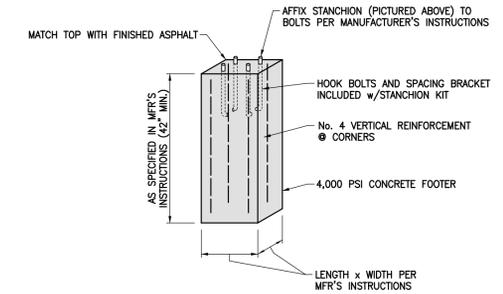
DIMENSIONS ARE TO THE OUTSIDE EDGE OF LINES.
 LINES SHALL BE 2 INCHES WIDE, EXCEPT WHERE NOTED. PAINT (WHITE) SHALL COMPLY WITH ODOT ITEM 642.
 BACKBOARD STANCHION NOTES:
 a. OFFSET THE CONCRETE BASE FROM BACKBOARD POSITION AS DIMENSIONED IN THE MANUFACTURER'S INSTRUCTIONS.
 b. POUR THE BASE BEFORE PLACING ASPHALT COURSES.
 c. PRODUCT SPECIFIED: GRIZZLY ADJUSTABLE BASKETBALL SYSTEM MANUFACTURED BY BSN SPORTS SKU 1291247

THE CONTRACTOR SHALL SUBMIT STANCHION SHOP DRAWINGS TO THE CITY FOR APPROVAL PRIOR TO ORDERING.

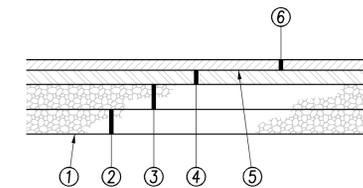
BASKETBALL COURT PLAYING LINE LAYOUT
 SCALE: 1/8" = 1'



GRIZZLY BASKETBALL SYSTEM BY BSN SPORTS
 MANUFACTURER'S PHOTOGRAPH, NOT TO SCALE



FOOTER FOR BASKETBALL STANCHIONS
 ISOMETRIC, NOT TO SCALE

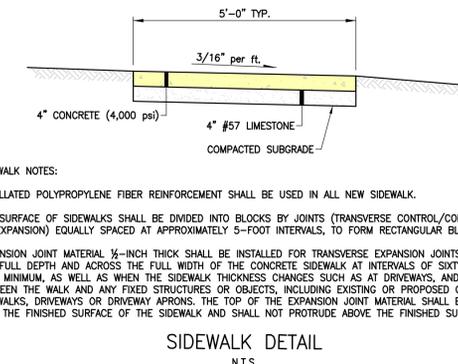
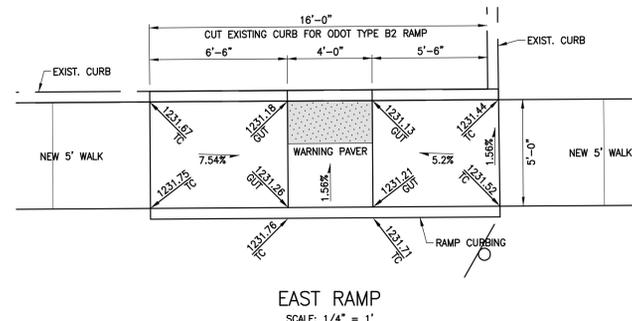
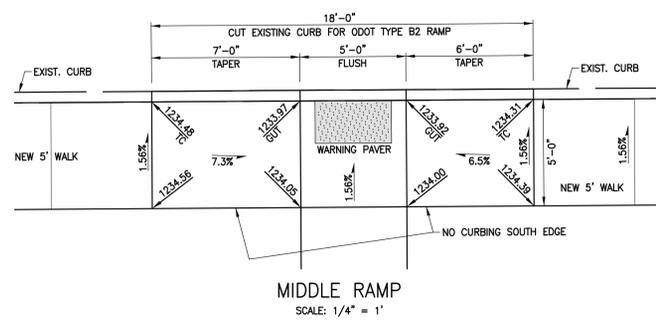
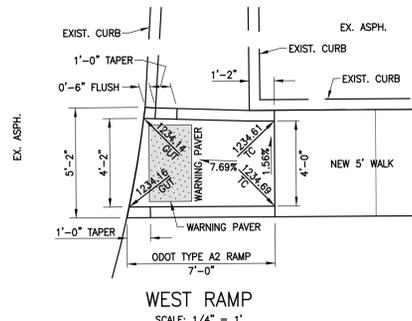
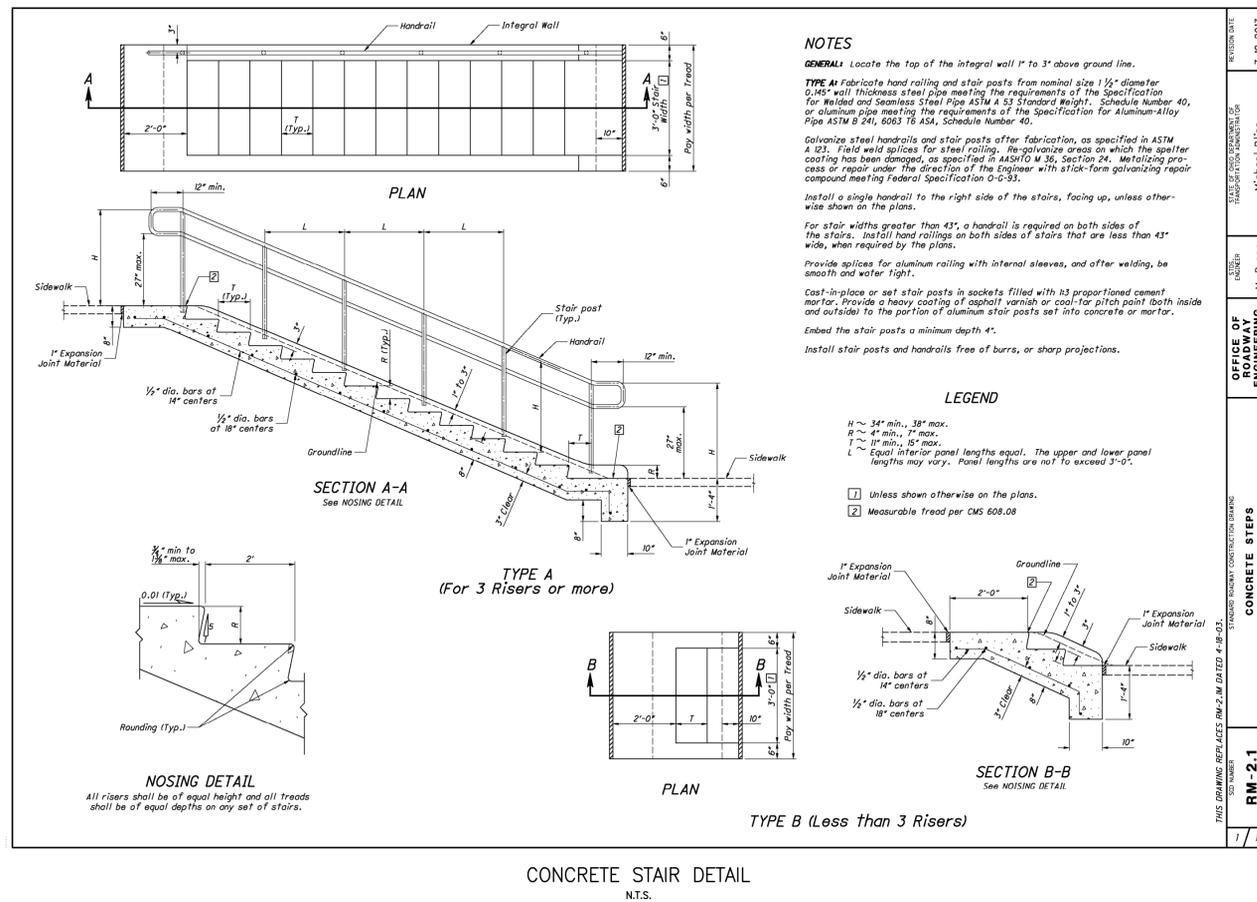
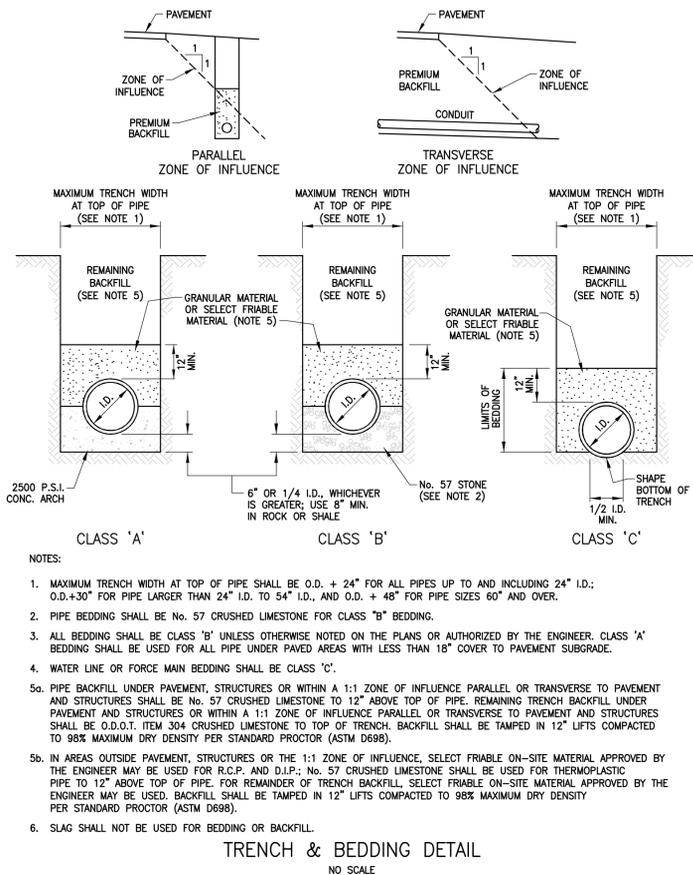
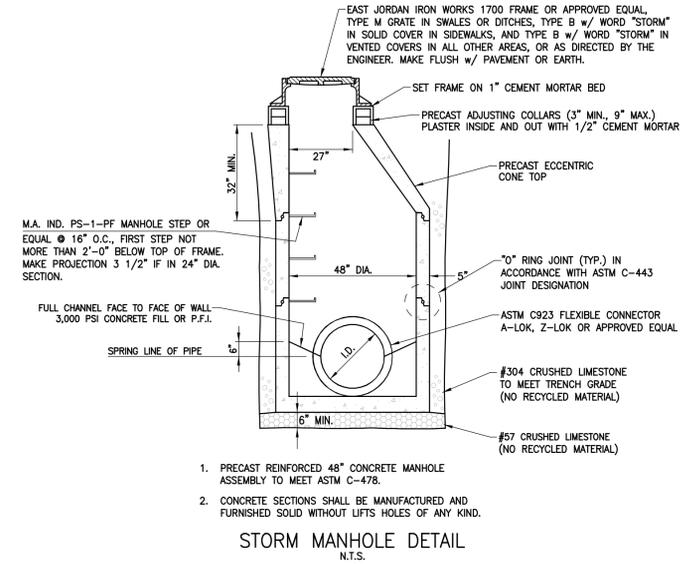


- ① ODOT ITEM 203 SUBGRADE COMPACTION
- ② 3.5" ODOT ITEM 304 AGGREGATE BASE (#4 STONE)
- ③ 3.5" ODOT ITEM 304 AGGREGATE BASE (#304 COMPACTED LIMESTONE)
- ④ 2" ODOT ITEM 441 TYPE 2 ASPHALT INTERMEDIATE COURSE
- ⑤ ODOT ITEM 407 TACK COAT
- ⑥ 1.5" ODOT ITEM 441 TYPE 1 ASPHALT SURFACE COURSE

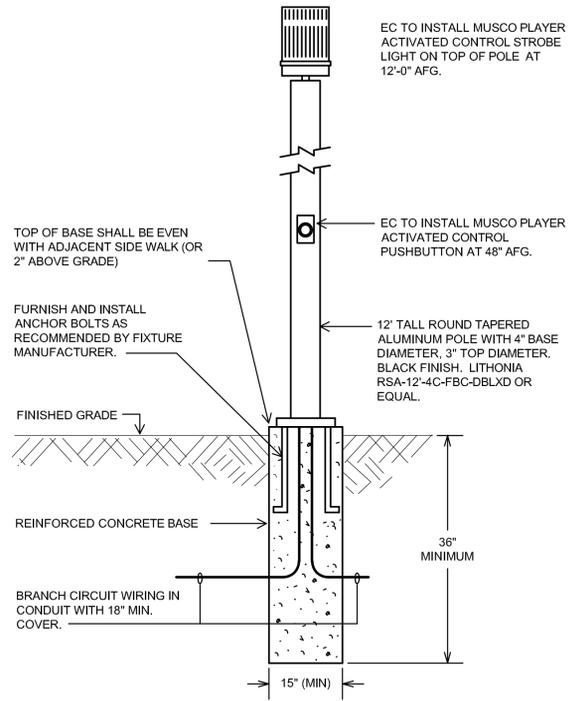
APPLY LIQUID ASPHALT TO SEAL ALL JOINTS BETWEEN CONCRETE AND ASPHALT AND WHERE PROPOSED ASPHALT MEETS EXISTING ASPHALT, INCLUDING SAW CUT JOINTS.

NO RECYCLED MATERIAL PERMITTED FOR ASPHALT SURFACE OR INTERMEDIATE COURSE. ALL LIMESTONE AGGREGATE SHALL BE CLEAN, 100% VIRGIN CRUSHED LIMESTONE.

ASPHALT PAVEMENT SECTION FOR BASKETBALL COURT
 N.T.S.

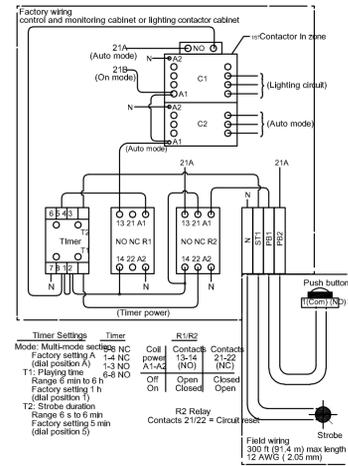


ABBREVIATIONS LEGEND	
SYMBOL	DESCRIPTION
ETR	EXISTING TO REMAIN
REX	REMOVE EXISTING
ATS	AUTOMATIC TRANSFER SWITCH
AF	AMP FUSE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
EC	ELECTRICAL CONTRACTOR
UON	UNLESS OTHERWISE NOTED



FIXTURE BASE DETAIL TYPICAL FOR PLAYER ACTIVATED CONTROLS

SCALE: NONE



MUSCO PLAYER ACTIVATED CONTROL WIRING DIAGRAM

SCALE: NONE

LIGHTING FIXTURE SCHEDULE						
TYPE AND SYMBOL	NO. OF LAMPS AND TYPE	FIXTURE WATTS	VOLTS	MANUFACTURER CATALOG NO.	MOUNTING	DESCRIPTION
SA	LED 2 PER POLE 67,000 LUMENS 5700 KELVIN 75 CRI	540W EACH	208V	MUSCO TLC-LED-550 WITH 40' POLE	POLE	2 LIGHTS PER POLE. 40' POLE HEIGHT. 1.08KW LOAD PER POLE. EC TO INSTALL POLE BASE PER MANUFACTURER'S RECOMMENDATIONS.
SB	LED 1 PER POLE 89,800 LUMENS 5700 KELVIN 75 CRI	890W EACH	208V	MUSCO TLC-LED-900 WITH 40' POLE	POLE	1 LIGHT PER POLE. 40' POLE HEIGHT. 0.89KW LOAD PER POLE. EC TO INSTALL POLE BASE PER MANUFACTURER'S RECOMMENDATIONS.
SC	LED 2 PER POLE 89,800 LUMENS 5700 KELVIN 75 CRI	890W EACH	208V	MUSCO TLC-LED-900 WITH 40' POLE	POLE	2 LIGHTS PER POLE. 40' POLE HEIGHT. 1.78KW LOAD PER POLE. EC TO INSTALL POLE BASE PER MANUFACTURER'S RECOMMENDATIONS.

EC TO PROVIDE NEW 100A 3-PHASE CIRCUIT BREAKER IN EXISTING PANEL

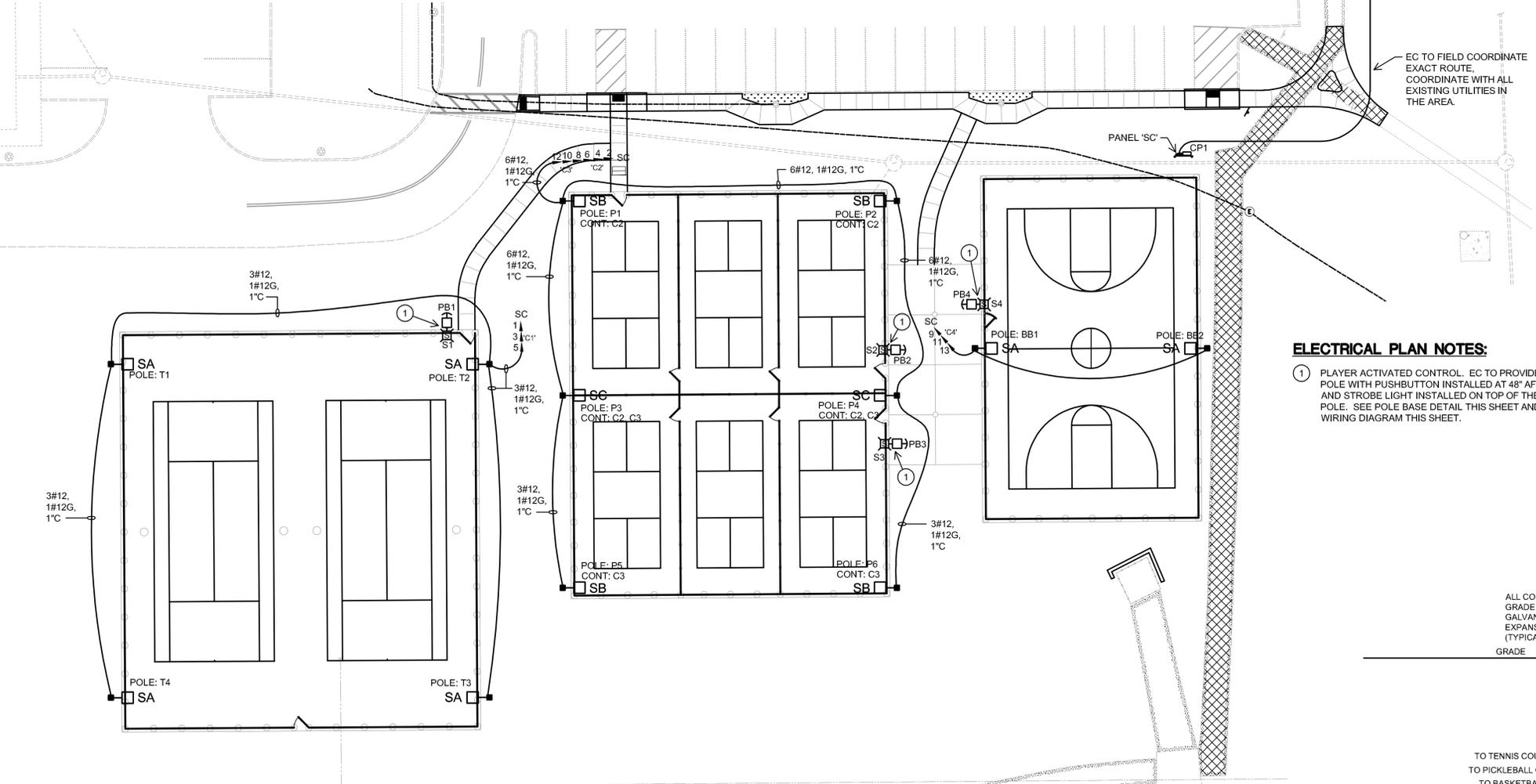
4#3/0, 1#4G, 3" PVC INSTALLED 18" BELOW FINISHED GRADE. EC TO FIELD VERIFY EXACT PATH AND COORDINATE WITH ALL EXISTING UTILITIES

NOTE:
DO ALL EXCAVATION AND BACKFILLING NECESSARY FOR INSTALLATION OF WORK, PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS WILL BE ENCOUNTERED. (I.E., TELECOMMUNICATIONS, SEWER, WATER, FUEL, ELECTRIC LINES, ETC) AND WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED, WHEN THE EXCAVATION APPROACHES THE ESTIMATED LOCATION OF SUCH INSTALLATIONS, THE EXACT LOCATION SHALL BE DETERMINED. WHEN IT IS UNCOVERED, PROPER SUPPORTS SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. UTILITY COMPANIES SHALL BE CONTACTED AND ADVISED OF THE PROPOSED WORK PRIOR TO THE START OF ACTUAL EXCAVATION, CONTACT THE OHIO UTILITIES PROTECTION SERVICE 48 HOURS PRIOR TO STARTING WORK.

ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	GROUND FAULT CIRCUIT INTERRUPTER OUTLET
	SAFETY SWITCH - HEAVY DUTY, UNFUSED
	PANELBOARD (208V/120V - 3 ph - 4W)
	IN-GRADE ELECTRICAL JUNCTION BOX FOR FUTURE EQUIPMENT INSTALLATION. SIZE PER MANUFACTURER'S RECOMMENDATIONS.
	IN-GRADE ELECTRICAL PULL BOX
	EXTERIOR METER
	FUSED DISCONNECT SWITCH, SEE ONE-LINE FOR SIZES

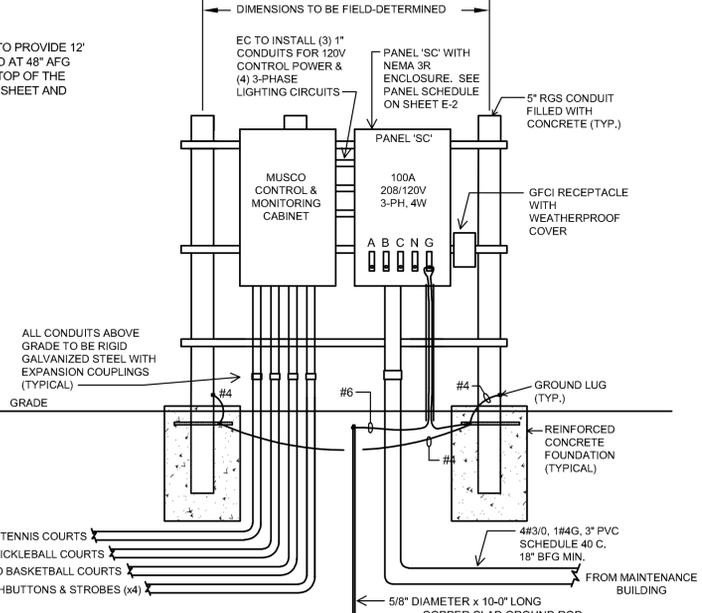
ELECTRICAL PLAN NOTES:

- 1. PLAYER ACTIVATED CONTROL. EC TO PROVIDE 12' POLE WITH PUSHBUTTON INSTALLED AT 48" AFG AND STROBE LIGHT INSTALLED ON TOP OF THE POLE. SEE POLE BASE DETAIL THIS SHEET AND WIRING DIAGRAM THIS SHEET.



ELECTRICAL SITE PLAN

SCALE: 1"=20'-0"



NEW SERVICE PEDESTAL ELEVATION

SCALE: NONE

ELECTRICAL SPECIFICATIONS

SECTION 16010 - ELECTRICAL GENERAL PROVISIONS

- THE PROVISIONS OF THE INSTRUCTIONS TO BIDDERS, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, ALTERNATES, ADDENDAS AND DIVISION 1 ARE A PART OF THIS SPECIFICATION. ELECTRICAL, ARCHITECTURAL, MECHANICAL AND ALL OTHER DRAWINGS AS WELL AS THE SPECIFICATIONS FOR ALL THE DIVISIONS ARE A PART OF THE CONTRACT DOCUMENTS.
- VISIT THE SITE OF THE WORK AND BECOME FAMILIAR WITH THE CONDITIONS AFFECTING THE INSTALLATION. SUBMISSION OF A PROPOSAL SHALL PRESUPPOSE KNOWLEDGE OF SUCH CONDITIONS AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED WHERE EXTRA LABOR OR MATERIALS ARE REQUIRED BECAUSE OF IGNORANCE OF THESE CONDITIONS.
- DISCREPANCIES BETWEEN ELECTRICAL, CIVIL, STRUCTURAL, CONTRACT DRAWINGS, OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER - PRIOR TO FINAL BID SUBMITTAL.
- DEFINITIONS:
 - "CONTRACTOR" AS USED WITHIN THE CONTEXT OF THE ELECTRICAL CONTRACT DOCUMENTS SHALL EXPLICITLY REFER TO THE "ELECTRICAL CONTRACTOR".
 - THE TERM "FURNISH" SHALL MEAN TO SUPPLY AND DELIVERY TO THE PROJECT SITE. READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.
 - THE TERM "INSTALL" SHALL MEAN WORK WHICH INCLUDES THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS.
 - THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, SERVICES AND PERMITS NECESSARY FOR THE PROPER COMPLETION OF ALL ELECTRICAL WORK SHOWN. ITEMS OMITTED, BUT NECESSARY, TO MAKE THE ELECTRICAL SYSTEM COMPLETE AND WORKABLE SHALL BE UNDERSTOOD TO FORM PART OF THE WORK. CONTRACTOR'S BID IS ASSUMED TO INCLUDE ANY PREMIUM TIME COSTS REQUIRED TO COMPLETE WORK.
- IT IS THE PURPOSE OF THE ELECTRICAL DRAWINGS TO INDICATE THE APPROXIMATE LOCATION OF ALL EQUIPMENT, OUTLETS, ETC. ASCERTAIN EXACT LOCATIONS AND ARRANGE WORK ACCORDINGLY. THE RIGHT IS RESERVED TO EFFECT REASONABLE CHANGES IN THE LOCATION OF OUTLETS UP TO THE TIME OF ROUGH-IN.
- SECURE AND PAY FOR PERMITS AND INSPECTIONS REQUIRED FOR THE ELECTRICAL WORK.
- WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF LOCAL AND STATE BUILDING AND FIRE CODES, AS WELL AS THE NATIONAL ELECTRICAL CODE AS INTERPRETED BY THE LOCAL AUTHORITY HAVING JURISDICTION. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY CHANGES NECESSARY FOR CODE COMPLIANCE.
- CONSULT THE DRAWINGS, PRODUCT DATA AND SHOP DRAWINGS COVERING THE WORK FOR VARIOUS OTHER TRADES, THE FIELD LAYOUTS OF THE CONTRACTORS FOR THE TRADE AND MAKE ADJUSTMENTS ACCORDINGLY IN LAYING OUT THE ELECTRICAL WORK.
- CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS, AND THE SUCCESSFUL OPERATION OF ALL EQUIPMENT AND APPARATUS INSTALLED BY HIM FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE ENTIRE WORK BY THE OWNER, AND SHALL GUARANTEE TO REPAIR OR REPLACE AT HIS OWN EXPENSE ANY PART OF THE APPARATUS WHICH MAY SHOW DEFECTIVE DURING THAT TIME PROVIDED SUCH DEFECT IS, IN THE OPINION OF THE OWNER, DUE TO IMPERFECT MATERIAL OR WORKMANSHIP AND NOT TO CARELESSNESS OR IMPROPER USE.
- THE EXISTING ELECTRICAL SERVICE AND ALL EXISTING COMMUNICATION SYSTEMS WITHIN THE SITE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. ANY SERVICE SHUTDOWNS THAT MAY BE REQUIRED SHALL BE SCHEDULED THROUGH THE CITY OF BROADVIEW HEIGHTS. BASE BID SHALL INCLUDE ALL PREMIUM TIME WORK THAT MAY BE REQUIRED DURING ANY SHUTDOWN PERIODS. PROVIDE TEMPORARY SERVICE TO EQUIPMENT OR SYSTEMS THAT CANNOT BE SHUTDOWN, AS DETERMINED BY THE OWNER.
- PROVIDE A MINIMUM OF TWO WEEKS NOTICE TO THE OWNER BEFORE ANY SERVICE SHUTDOWN IS SCHEDULED.
- EQUIPMENT AND MATERIALS USED ON THIS PROJECT SHALL BE NEW AND U.L. LABELED FOR THE APPLICATION.

- THE CONTRACTOR SHALL KEEP ONE COMPLETE SET OF THE CONTRACT WORKING DRAWINGS ON THE PROJECT SITE ON WHICH HE SHALL RECORD ANY DEVIATIONS OR CHANGES FROM SUCH CONTRACT DRAWINGS MADE DURING CONSTRUCTION. AFTER THE PROJECT IS COMPLETED, RECORD SETS OF DRAWINGS SHALL BE DELIVERED TO THE OWNER IN GOOD CONDITION, AS A PERMANENT RECORD OF THE INSTALLATION AS CONSTRUCTED.
- PROVIDE NAMEPLATES ON PANELBOARDS, DISTRIBUTION EQUIPMENT, SAFETY SWITCHES, MOTOR STARTERS, JUNCTION BOXES, AND CONTROL DEVICES. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, LETTERING SHALL INCLUDE THE NAME OR DESIGNATION OF EQUIPMENT, HORSEPOWER, VOLTAGE RATING AND SERVICE DESIGNATION. NAMEPLATES SHALL BE LAMINATED PHENOLIC WITH A BLACK SURFACE AND WHITE CORE. IDENTIFICATION WITH A DYMO TYPE INSTRUMENT IS NOT PERMISSIBLE. THE INSIDE COVER OF ALL RECEPTACLE OUTLET PLATES SHALL BE PERMANENTLY MARKED TO INDICATE THE PANEL AND CIRCUIT NUMBER OF THE OUTLET. THE INSIDE COVER OF ALL BLANK PLATES FOR JUNCTION BOXES INSTALLED SHALL BE PERMANENTLY MARKED TO INDICATE THE SYSTEM. IDENTIFICATION OF BRANCH CIRCUITS SHALL BE TYPED ON DIRECTORY CARDS. FURNISH WITH ALL PANELS AND PLACED IN THE CARD HOLDER ON THE DOOR. PROVIDE NEW TYPED DIRECTORY CARDS WITH UPDATED SCHEDULES FOR ALL EXISTING PANELS WITH NEW OR MODIFIED CIRCUITS.
- AFTER INSTALLATION, TEST FOR GROUNDS, SHORT CIRCUITS AND PROPER FUNCTION OF EACH SYSTEM AND RELATED WIRING. FAULTS IN THE INSTALLATION SHALL BE CORRECTED.
- INSULATION RESISTANCE TESTS SHALL BE MADE ON THE ELECTRICAL SYSTEM WITH AN APPROVED MEGOHMMETER.
- (AT ALL TIMES KEEP PREMISES IN NEAT AND ORDERLY CONDITION CLEANED ON A DAILY BASIS WITH ALL DEBRIS BEING REMOVED FROM THE SITE DAILY). FOLLOW EXPLICITLY ANY INSTRUCTIONS OF OWNERS REPRESENTATIVE. AFTER ALL TESTS AND ADJUSTMENTS HAVE BEEN COMPLETED, CLEAN ALL EQUIPMENT LEAVING EVERYTHING IN WORKING ORDER AT THE COMPLETION OF THIS WORK. CLEAN LIGHTING FIXTURES, OUTLET BOX PLATES, PANEL AND CABINET INTERIORS AND EXTERIORS, ETC., OF DIRT, DUST, DEBRIS AND PAINT. AFTER ALL OTHER TRADES HAVE COMPLETED THEIR WORK.
- DEMONSTRATE TO THE OWNER'S SATISFACTION THE PROPER OPERATION OF EACH OF THE SYSTEMS COMPRISING THIS CONTRACT BEFORE FINAL PAYMENT.
- DO ALL CUTTING AND PATCHING IN EXISTING CONSTRUCTION AS NECESSARY FOR INSTALLATION OF THIS WORK. HAVE CUTTING DONE BY SKILLED MECHANICS AS CAREFULLY AS POSSIBLE AND WITH AS LITTLE DAMAGE AS POSSIBLE.

SECTION 16050 - BASIC MATERIALS AND METHODS

- ALL BOXES AND CONDUIT SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING STRUCTURE INDEPENDENT OF THE CONDUIT SYSTEM. ALL BOXES SHALL BE 4" SQUARE BOXES MINIMUM WITH RAISED COVERS SUITABLE FOR THE WALL MATERIAL.
- RACEWAYS:
 - CONDUIT SHALL BE HEAVY WALL RIGID GALVANIZED STEEL (RMC) OR INTERMEDIATE GRADE STEEL (IMC) IN DAMP OR WET LOCATIONS. EXPOSED CONDUITS IN HIGH TRAFFIC AREAS WHERE CONDUITS ARE SUBJECT TO PHYSICAL ABUSE SHALL BE HEAVY WALL RIGID GALVANIZED STEEL TO A LEVEL OF 8 FEET ABOVE THE FINISHED FLOOR. CONDUITS SHALL BE 1" TRADE SIZE, MINIMUM, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR WITHIN THESE SPECIFICATIONS.
 - CONDUIT BELOW SLABS AND UNDERGROUND SHALL BE SCHEDULE 40 PVC CONDUIT. FOR CONDUITS LARGER THAN 2" PROVIDE RMC OR IMC LONG SWEPS FOR STUB UPS INTO ELECTRICAL EQUIPMENT. PROVIDE RMC TRANSITIONS WHERE SUBJECT TO PHYSICAL DAMAGE.
 - CONDUITS PASSING FROM INTERIOR OF THE BUILDING TO EXTERIOR OF THE BUILDING SHALL BE FILLED WITH A U.L. APPROVED MATERIAL TO PREVENT CIRCULATION OF WARM AIR TO THE EXTERIOR RACEWAY PER NEC SECTION 300.7(A).

3. WIRING DEVICES:

- DUPLEX RECEPTACLES WHERE INDICATED ON THE DRAWINGS OR WHERE REQUIRED BY NEC. STATE OR LOCAL CODE, SHALL HAVE AN INTEGRAL GROUND FAULT PROTECTOR AND SHALL BE 20A, 125V, 3 POLE, 3 WIRE GROUNDING. HUBBELL #GR532, GROUND FAULT RECEPTACLES SHALL NOT BE THRU-WIRED. PROVIDE INDIVIDUAL DUPLEX RECEPTACLES AS SHOWN ON THE DRAWINGS.
- ALL SWITCHES, AND RECEPTACLES SHALL BE GRAY UNLESS OTHERWISE INDICATED WITHIN THESE SPECIFICATIONS. USE CADMIUM PLATED, ROUND CORNER STEEL COVERPLATES FOR SURFACE MOUNTED OUTLET BOXES. BOTH THE WIRING DEVICES AND THE COVERPLATES SHALL BE BY THE SAME MANUFACTURER.
- THE FOLLOWING ARE EQUIVALENT WIRING DEVICES:
 - RECEPTACLES: #362 SERIES MANUFACTURED BY PASS AND SEYMOUR OR LEVITON.
- WIRE AND CABLE FOR BRANCH CIRCUITS AND FOR FEEDERS SHALL BE 600 VOLT, TYPE THWN COPPER ONLY, UNLESS OTHERWISE INDICATED ON THE DRAWINGS. MINIMUM SIZE FOR POWER AND LIGHTING BRANCH CIRCUITS SHALL BE #12.
- SAFETY SWITCHES SHALL BE HEAVY DUTY FUSIBLE OR NONFUSIBLE TYPE AS INDICATED ON THE DRAWINGS, AND SHALL BE SUITABLE FOR THE VOLTAGE AND CURRENT RATINGS AS SHOWN ON THE DRAWINGS.
- FUSES RATED 600 AMPERES OR LESS, 600 VOLTS OR LESS, SERVING ALL LOADS SHALL BE U.L. CLASS RK5, DUAL ELEMENT, TIME DELAY AS MANUFACTURED BY BUSHMANN, OR APPROVED EQUIVALENT AS MANUFACTURED BY RELIANCE FUSE, GOULD SHAWMUT OR LITTELFUSE, GENERAL ELECTRIC OR S & C.
- DISCONNECT SWITCHES AND MOTOR STARTERS SHALL BE MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, SIEMENS, CUTLER HAMMER, OR ALLEN BRADLEY.
- NOT USED
- RACEWAY INSTALLATION:
 - CONDUITS SHALL BE CONTINUOUS AND SECURED TO ALL BOXES IN SUCH A MANNER THAT EACH CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS FROM THE POINT OF SERVICE TO ALL OUTLET BOXES. RUN CONDUITS CONCEALED UNLESS OTHERWISE INDICATED.
- WIRE AND CABLE INSTALLATION:
 - PULL WIRE AND CABLES INTO CONDUIT USING IDEAL INDUSTRIES "YELLOW 190" OR EQUIVALENT.
 - COLOR CODE WIRE AND CABLE FOR CIRCUITS AS CALLED FOR IN THE NATIONAL ELECTRICAL CODE. COLOR CODING OF FEEDERS SHALL BE BY MEANS OF COLORED TAP AT TERMINALS.
- WIRING DEVICE INSTALLATION:
 - ADJACENT DEVICES SHALL BE MOUNTED IN GANGED BOXES WITH COMMON COVER PLATES.
 - VERIFY MOUNTING HEIGHTS AND LOCATIONS WITH THE ARCHITECT BEFORE ROUGH-IN. REFER TO DETAILS AND INTERIOR WALL ELEVATIONS SHOWN ON THE ARCHITECTURAL DRAWINGS.
 - OUTLETS SHALL NOT BE INSTALLED BACK TO BACK.
 - ALL RECEPTACLES SHALL BE MOUNTED WITH THE GROUND OPENING ABOVE THE PHASE AND NEUTRAL OPENINGS.
 - ALL DEVICES SHALL BE SECURED WITH MORE THAN A SINGLE SCREW.

- ALL HARDWARE, SUPPORTS, HANGERS, BRACKETS, ANGLE IRON, CHANNELS, RODS AND CLAMPS NECESSARY TO INSTALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED TO SUIT THE FIELD CONDITIONS AND THE APPLICATIONS INTENDED AS SHOWN ON THE DRAWINGS. THE USE OF PERFORATED STRAPS IS NOT PERMITTED.
- ALL EQUIPMENT MOUNTED ON EQUIPMENT ROOM WALLS SHALL BE ATTACHED TO 3/4" PLYWOOD BOARDS, PAINTED WITH FIRE RESISTANT PAINT.

SECTION 16400 - SERVICE AND DISTRIBUTION

- GROUND ALL ELECTRICAL SYSTEM CONDUITS, MOTORS, PANELS AND OTHER EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ALL PROVISIONS OF THE NATIONAL ELECTRICAL CODE, STATE BUILDING CODE AND LOCAL OR REGIONAL CODES.
- GROUNDING OF THE ELECTRICAL SYSTEM SHALL BE BY MEANS OF AN INSULATED GROUNDING CONDUCTOR INSTALLED WITH FEEDER AND BRANCH CIRCUIT CONDUCTORS IN ALL CONDUITS. GROUNDING CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH N.E.C. ARTICLE 250. DENTAL TREATMENT ROOMS SHALL BE GROUNDED PER ARTICLE 517-13 (NOTE: THIS IS ACHIEVED USING A DEDICATED EQUIPMENT GROUND CONDUCTOR AND A GROUNDED METAL CONDUIT SYSTEM AS SPECIFIED).
- SYSTEM NEUTRAL CONDUCTORS SHALL BE GROUNDED AT THE SOURCE. NEUTRAL CONDUCTORS SHALL NOT BE USED FOR EQUIPMENT GROUNDING.
- FURNISH AND INSTALL BRANCH CIRCUIT BREAKER PANELBOARDS EQUIPPED WITH CIRCUIT BREAKERS, WITH FRAME AND TRIP RATINGS LISTED ON THE DRAWINGS. CIRCUIT BREAKERS SHALL BE THERMAL-MAGNETIC, MOLDED CASE SOLID-STATE TYPE, ALL CURRENT CARRYING PARTS OF THE BUS STRUCTURE SHALL BE TIN-PLATED ALUMINUM. EACH PANELBOARD SHALL CONTAIN A GROUNDING BUS.
- SEE PANEL SCHEDULES FOR REQUIRED AIC RATINGS OF PANELS AND BREAKERS.
- PANELBOARDS SHALL BE AS MANUFACTURED BY SQUARE D, SIEMENS, GENERAL ELECTRIC OR CUTLER HAMMER.
- PANELS SHALL BE MOUNTED SO THAT TOP OF THE CABINET IS AT 6'-0" ABOVE FLOOR. A GLAZED DIRECTORY FRAME SHALL BE PROVIDED INSIDE EACH PANEL DOOR AND SHALL BE OF SUFFICIENT SIZE TO GIVE A COMPLETE DESCRIPTION OF EACH CIRCUIT. TYPED DIRECTORY CARDS SHALL BE PROVIDED LISTING EACH CIRCUIT SERVED AFTER OWNERS ROOM NUMBERS ARE VERIFIED.
- THE BRANCH CIRCUIT NUMBERS USED ON THE DRAWINGS SHALL BE APPLIED FOR THE CONSTRUCTION. HOWEVER, AT THE COMPLETION OF THE WORK, CIRCUIT NUMBER LABELS SHALL BE MADE AS REQUIRED TO PROVIDE BALANCED PHASE LOADING ON EACH PANELBOARD.

POLE FOUNDATION SCHEDULE - ALL EXCEPT T1, T4

POLE DESIGNATION	FORCES (1)			DRILLED PIER			CONCRETE BACKFILL YD ³ (2)
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH	SUSPENSION "Y" (2)	
BB1, BB2	10,688	433	471	36	8'-0"	NA	1.5
P1	9,343	388	420	30	10'-0"	2'-0"	1.4
P2, P5, P6	9,343	388	420	36	8'-0"	NA	1.5
P3	12,170	485	501	30	10'-0"	2'-0"	1.4
P4	12,170	485	501	36	8'-0"	NA	1.5
T2	10,485	420	471	30	10'-0"	2'-0"	1.4
T3	10,485	420	471	36	8'-0"	NA	1.5

- ASD LOAD COMBINATION D + 0.6W. VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT).
- SUSPEND PRECAST BASE "Y" OFF THE BOTTOM OF THE EXCAVATION DURING MONOLITHIC CONCRETE BACKFILL PLACEMENT AND CURING. NA = NOT APPLICABLE, SUSPENSION NOT REQUIRED.
- MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.

POLE IDENTIFICATION

POLE DESIGNATION	POLE TYPE	PRECAST BASE TYPE	FIXTURE CONFIGURATION (FX, PER X#X#X)	FIXTURE AND ACCESSORIES (EPA, FT)
BB1, BB2	LSS40A	1B	2 (2)	3.8
P1, P2, P5, P6	LSS40A	1B	1 (1)	2.2
P3, P4	LSS40A	1B	2 (2)	4.8
T1 - T4	LSS40A	1B	2 (2)	3.2

CONCRETE/REINFORCEMENT NOTES

CONCRETE SHALL COMPLY WITH THE FOLLOWING ASTM STANDARDS: MIXTURE WITH ASTM C-94, PORTLAND CEMENT WITH ASTM C-150 TYPE I, AGGREGATES (0.75" MAX) WITH ASTM C-39 AND BE IN CONFORMANCE WITH ACI 318.

CONCRETE SHALL BE AIR-ENTRAINED (COMPLY WITH ASTM C-260), HAVE A MAXIMUM WATER-CEMENT RATIO, w/c = 0.45 AND HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4,500 PSI (1), T4: 3,000 PSI (REMAINING POLES).

DESIGN SLUMP LIMITS ARE 4" MINIMUM AND 6" MAXIMUM. THE JOB SITE SLUMP MAY BE INCREASED BY THE USE OF A WATER REDUCING AGENT MEETING ASTM C494-92.

REQUIREMENTS FOR T1, T4 ONLY BELOW:

CONCRETE REINFORCEMENT SHALL COMPLY WITH ASTM A615 GRADE 60 AND BE IN CONFORMANCE WITH ACI 318 & 318.

CONCRETE DRILLED PIERS MUST ATTAIN 3,000 PSI STRENGTH PRIOR TO POLE INSTALLATION AND FIXTURE MOUNTING.

THE DEPTH EQUAL TO THE PRECAST BASE EMBEDMENT SHALL BE THOROUGHLY CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACEMENT.

POLE FOUNDATION ELEVATION (ALL EXCEPT T1, T4)

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE: THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1808.2) OR BETTER. COMPACTION 95% FOR COHESIVE SOIL AND 98% FOR A COHESIONLESS SOIL BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

DESIGN NOTES

DESIGN PARAMETERS:
WIND V: 110 MPH, V₅₀ = 85 MPH (EXPOSURE C, RISK CATEGORY II) PER OHIO BUILDING CODE, 2024 EDITION (IBC 2021 / ASCE 7-16). DESIGN WIND PARAMETERS ARE AS NOTED. ACTUAL EXPOSURE MUST BE VERIFIED FOR THE SITE BY THE PROPER GOVERNING OFFICIAL.

GEOTECHNICAL PARAMETERS:
ALLOWABLE END BEARING SOIL PRESSURE: 3,000 PSF
ALLOWABLE LATERAL SOIL BEARING PRESSURE:
0 PSF/FT (GRADE TO -2'-0"), 100 PSF/FT (EXISTING FILL); 200 PSF/FT (NATIVE SOIL) IN ACCORDANCE WITH THE 2024 EDITION OF THE OHIO BUILDING CODE, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE 2012 SOIL BORING LOGS (PROJECT NO. 121023) & 2018-17 GEOTECHNICAL REPORT & BORINGS (PROJECT NO. 181176) BY TIMMERMAN GEOTECHNICAL GROUP, INC., AKRON, OH.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A LICENSED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TRIMMER WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION OR WHEN THE FREE DROP EXCEEDS 9'-0".

GENERAL NOTES:
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN NEAR ANY SLOPES STEEPER THAN 3H:1V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.

POLES T1, T4 FOUNDATION ELEVATION

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE: THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1808.2) OR BETTER. COMPACTION 95% FOR COHESIVE SOIL AND 98% FOR A COHESIONLESS SOIL BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

BROADVIEW HEIGHTS REC CENTER TE PB BB ATHLETIC LIGHTING

STRUCTURAL ENGINEERS, P.C.

114 NICHOLAS DRIVE, MARSHALLTOWN, IOWA 50108
PHONE NUMBER: 641-792-8204
EMAIL: INSL.INFO@SPECFORCZ

COMPONENTS: 10' x 14' AWL WEST (1000) 822-0020

PROJECT NUMBER: 241545
DATE: 24 FEBRUARY 2025
DRAWING NUMBER: C1
OF TWO

POLE FOUNDATION SCHEDULE - T1, T4

POLE DESIGNATION	FORCES (1)			DRILLED PIER			REINFORCING		
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH	CONCRETE BACKFILL YD ³ (2)	CORE DIAMETER INCH (3)	VERTICAL REINFORCING	HORIZONTAL TIES
T1, T4	10,485	420	471	30	14'-0"	2.1	23	10-#6	#4 @ 12"

- ASD LOAD COMBINATION D + 0.6W. VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT).
- MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.
- CORE DIAMETER EQUAL TO INSIDE DIAMETER OF TIES.

PRECAST BASE IDENTIFICATION

PRECAST BASE TYPE	PRECAST BASE WEIGHT	PRECAST BASE LENGTH	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT	OUTSIDE DIAMETER
1B	920 LBS	19'-2"	7'-2"	8'-0"	9.56"

REFERENCE POLE ID TABLE ON SHEET C1 FOR POLE TO PRECAST BASE TYPES

PIER DETAIL

SCALE: NOT TO SCALE

INSTALLATION NOTE (POLES T1, T4 ONLY): CONCRETE TO BE PLACED IN A CONTINUOUS POUR OR A COLD JOINT WILL BE ACCEPTABLE AT THE BOTTOM OF THE PRECAST BASE. TWO POUR WITH THE REINFORCEMENT IN PLACE. THE CONCRETE BELOW THE BOTTOM OF THE PRECAST BASE MAY BE POURED AND ALLOWED TO SET UP LONG ENOUGH TO SUPPORT WEIGHT OF PRECAST BASE. THEN THE PRECAST BASE MAY BE SET IN PLACE AND THE REST OF THE CONCRETE CONCRETE BACKFILL POURED, DEPENDING ON THE DEPTH TO GROUND WATER AT THE TIME OF INSTALLATION, THE TWO POUR METHOD UTILIZING A COLD JOINT MAY NOT BE FEASIBLE.

BROADVIEW HEIGHTS REC CENTER TE PB BB ATHLETIC LIGHTING

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EMAIL: INSL.INFO@SPECFORCZ

COMPONENTS: 10' x 14' AWL WEST (1000) 822-0020

PROJECT NUMBER: 241545
DATE: 24 FEBRUARY 2025
DRAWING NUMBER: C2
OF TWO

HEJDUK-COX AND ASSOCIATES, INC.
CONSULTING ENGINEERS & SURVEYORS
32145 Old South Miles Road
Salon, Ohio 44139
440-248-1330

STADELMAN ASSOCIATES INC.
CONSULTING ENGINEERS
854 HARTMAN ROAD
WADSWORTH, OH 44121
(330) 926-2600

Revisions

PROPOSED TENNIS, PICKLEBALL & BASKETBALL COURTS

BROADVIEW HEIGHTS RECREATION CENTER

9543 BROADVIEW ROAD
BROADVIEW HEIGHTS, OHIO 44147

Seal
STATE OF OHIO
REGISTERED PROFESSIONAL ENGINEER
CHARLES S. PARSONS
E-72549
Project No. 24802
Drawing No. E-3