

Emerald Fields Expansion

4040 Wyandotte Woods B, Dublin, OH 43017

DATE: August 1, 2017

Bid Document Submittal Site Improvement Package

PROJECT NO. 16038

SHEET INDEX

L0.1	Site Survey
L0.2	Site Reference Plan
L1.0	Demolition and Site Preparation Plan: Tennis Courts
L1.1	Demolition, Site Preparation & Replacement Plan: Sand Volleyball Courts
L2.0	Grading and Drainage Plan: Tennis Courts
L2.1	Grading and Drainage Plan: Sand Volleyball Courts
L3.0	Layout Plan: Tennis Courts
L3.1	Layout Plan: Sand Volleyball Courts
L4.0	Planting Notes
L4.1	Tree Protection and Removal Plan
L4.2	Planting Plan and Schedule: Tennis and Volleyball Courts
L4.3	Replacement Planting Plan and Schedule: Parking Lot
SD1.0	Site Details
SD2.0	Planting Details
E-1	Electrical Site Plan
E-2	Electrical Specification

PREPARED FOR

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

PREPARED BY



Columbus
100 Northwoods Blvd
Suite A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court
Suite 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

VICINITY MAP



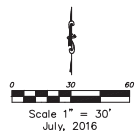
NOT TO SCALE



PROJECT DESCRIPTION:

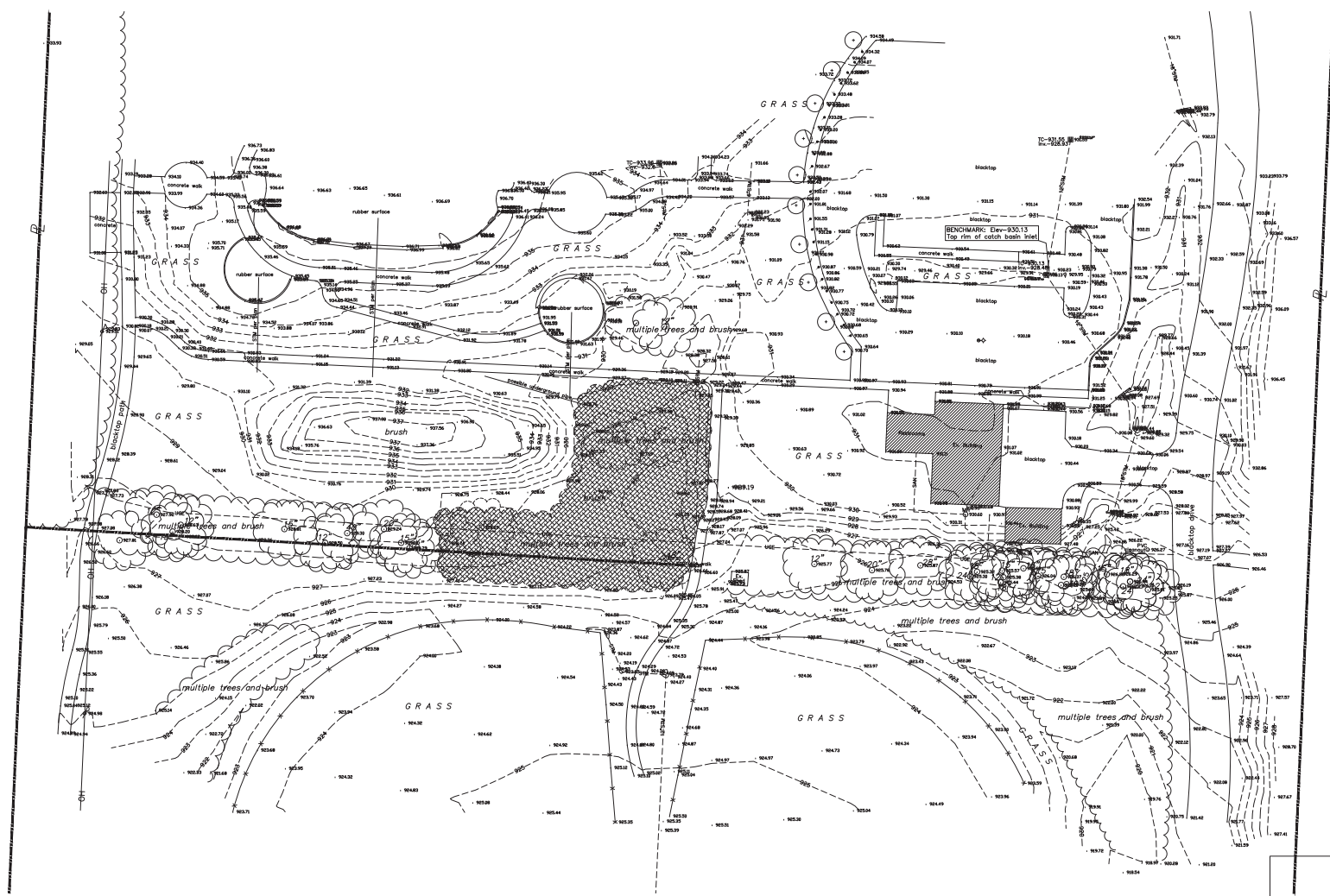
BASE BID:

EMERALD FIELDS ENHANCEMENTS - LUMP SUM BID FOR ALL TRADES, LABOR, EXPERTISE, MATERIALS, SUPPLIES, TOOLS, EQUIPMENT, SHIPPING, SERVICES AND APPURTENANCES NECESSARY TO FURNISH AND CONSTRUCT ALL WORK AS PER PLANS AND SPECIFICATIONS IDENTIFIED AS EMERALD FIELDS OUTDOOR TENNIS COURTS AND SAND VOLLEYBALL COURTS, POURED-IN-PLACE PAVING AND BENCH CONCRETE PADS, BENCH INSTALLATION, GRADING AND DRAINAGE, PLANTING, LIGHTING, AND FENCING.



LEGEND

- Property Lines
- Water Main
- Gas Line
- Sanitary Sewer
- Storm Sewer
- Electric Line
- Telephone Line
- Underground Cables
- Overhead Lines
- Manhole
- Storm Inlet
- Fire Hydrant and Valve
- Utility Pole
- Guy Wire
- Fence
- Yard Light
- Utility Marker
- Deciduous Tree
- Shrub
- SAN
- Man Hole
- Cable Television
- 3" SO Electric Pedestal
- Telephone Pedestal
- CATV Pedestal



The locations of underground utilities as shown herein are based on above ground structures and record drawings provided the surveyor. Locations of underground utilities/structures may vary from locations shown herein. Additional buried utilities/structures may be encountered. No excavations were made during the progress of this survey to locate buried utilities/structures.

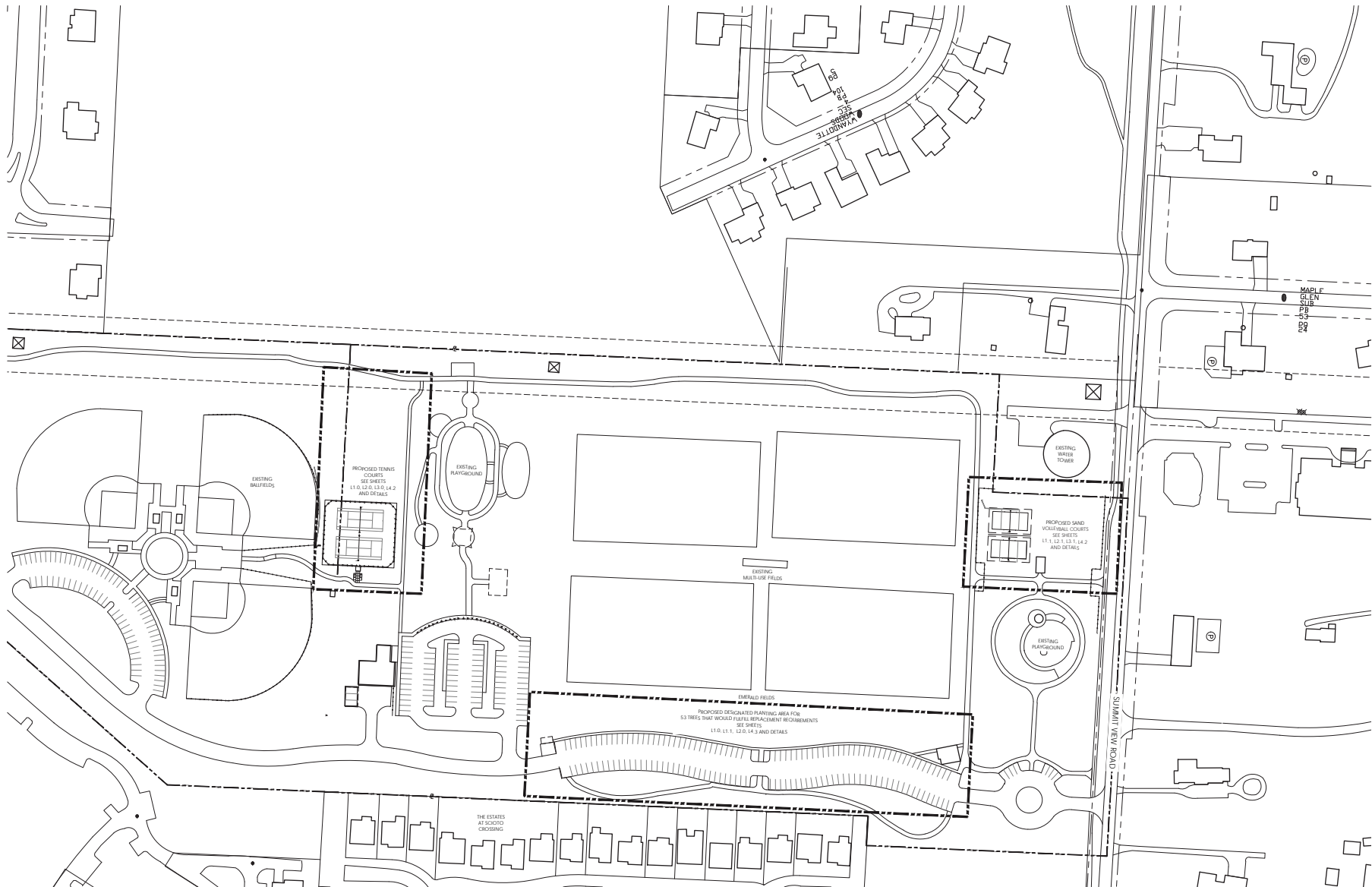
NOTE: Subsurface and environmental conditions were not surveyed or examined as part of this survey. No evidence or statement is made concerning the existence of underground or overhead conditions, conditions or facilities that may affect the use or development of this property.

I hereby certify that I have surveyed the property described in the foregoing title caption, and that the surveying was done with accuracy and correct to the best of my knowledge. Easements, restrictions, utilities, and rights-of-way not located, unless noted.

Professional Surveyor No.

Plat showing partial topography,
at Emerald Fields Park,
City of Dublin,
Franklin County, Ohio

DRAWN BY:	ALB	DATE:	7/4/16
CHECKED BY:	B.P.	DRAWING NO.:	12116
JOB NO.:	12116-16	SHEET	1 OF 1



Site Reference Plan: Tennis Courts and Sand Volleyball Courts
SCALE: 1" = 80'

0 40 80 160



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066
PODdesign.net

Project Name
Emerald Fields Expansion
4040 Wyandotte Woods B
Dublin, Ohio 43017

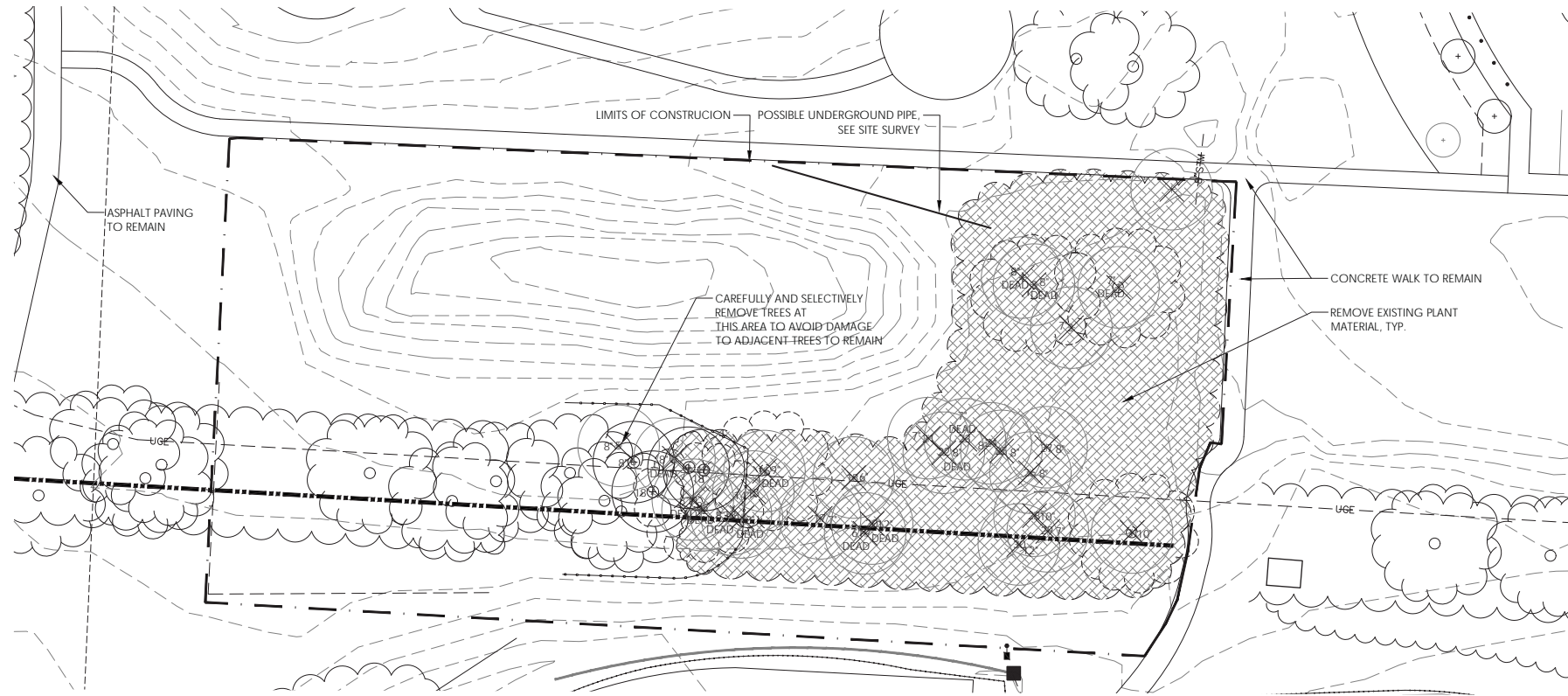
Prepared For
Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info
Project # 16038
Date 08/01/17
By SO/JD
Scale As Noted

Revisions

Sheet Title
**SITE
REFERENCE
PLAN**

Sheet #
L0.2



Demolition and Site Preparation Plan: Tennis Courts
SCALE: 1" = 16'

GENERAL DEMOLITION NOTES

1. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL DEMOLITION WORK WITH OWNER'S REPRESENTATIVE ON A DAILY BASIS.
4. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL CONTACT UTILITY SERVICES TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES.
5. CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ANY DAMAGE, WHETHER INSIDE OR OUTSIDE OF THE PROJECT LIMITS, TO UTILITY SYSTEMS, SURFACE PAVEMENTS, FIXTURES OR STRUCTURES THAT ARE NOT SPECIFICALLY INDICATED TO BE REMOVED OR RELOCATED AS PART OF THE PROJECT CONSTRUCTION.
6. EXISTING STRUCTURES, PLANTS, AND ANY IMPROVEMENTS WHICH ARE NOT NOTED TO BE REMOVED SHALL BE PROPERLY PROTECTED DURING THE CONSTRUCTION PERIOD. EXISTING TREES SHALL BE PROTECTED FROM IMPACT BY ANY EQUIPMENT AS WELL AS COMPACTION OF ROOT ZONE AREAS.
6. ALL TREE PROTECTION ZONE FENCING SHALL BE STAKED AT LEAST 5' BEYOND EXISTING TREE CANOPY CIRCLE.
7. PROVIDE STURDY, UPRIGHT METAL STAKES TO HOLD ALL CONSTRUCTION FENCING MESH AROUND ALL TREES AND STRUCTURES TO BE RETAINED AND PROTECTED.
8. UNDER NO CIRCUMSTANCES SHALL ANY DEBRIS, TRACKING, OR EQUIPMENT GO OVER OR BE SET OVER EXISTING TREE ROOT SYSTEMS.
9. ALL DEBRIS AND ITEMS REMOVED SHALL BE DISPOSED OF LEGALLY OFF-SITE.
10. IF BURIED IRRIGATION EXISTS, THE PIPE MAY BE ABANDONED IN PLACE IF IT WILL NOT INTERFERE WITH ANY NEW WORK, BE EMBEDDED IN NEW PAVED AREAS, OR REMAIN 4" MINIMUM BELOW ALL UNPAVED FINISH GRADES.
11. EXISTING LINES TO BE ABANDONED MAY BE CAPPED OFF AT POINTS WHERE CONSTANT PRESSURE IS TO BE MAINTAINED.
12. EXISTING FOUNDATIONS OF ABANDONED UTILITIES SHALL BE COMPLETELY REMOVED BELOW THE FOOTPRINT OF NEW FOUNDATIONS.
13. ALL DIMENSIONS ON THIS DRAWING ARE IN ARCHITECTURAL FEET UNLESS OTHERWISE STATED.

GENERAL TREE REPLACEMENT NOTES

1. REFER TO SHEET L4.2 FOR NOTES OF TREE REMOVAL AND REPLACEMENT REQUIREMENTS
2. REFER TO SHEET L4.3 FOR THE REPLACEMENT AND PLANTING PLAN

LEGEND

- LIMIT OF WORK/CONSTRUCTION FENCING PERIMETER
- EXISTING TREE TO REMAIN AND BE PROTECTED
- EXISTING TREE & STUMP TO BE REMOVED
- EXISTING LIGHT POLE TO REMAIN
- EXISTING FENCE TO REMAIN
- EXISTING CONCRETE TO BE REMOVED, SEE PLAN
- EXISTING LANDSCAPE TO BE REMOVED, SEE PLAN
- EXISTING PLANTING TO REMAIN
- TREE PROTECTION FENCING



Columbus
100 Northwoods Blvd., Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion

4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SO/JD
Scale As Noted

Revisions

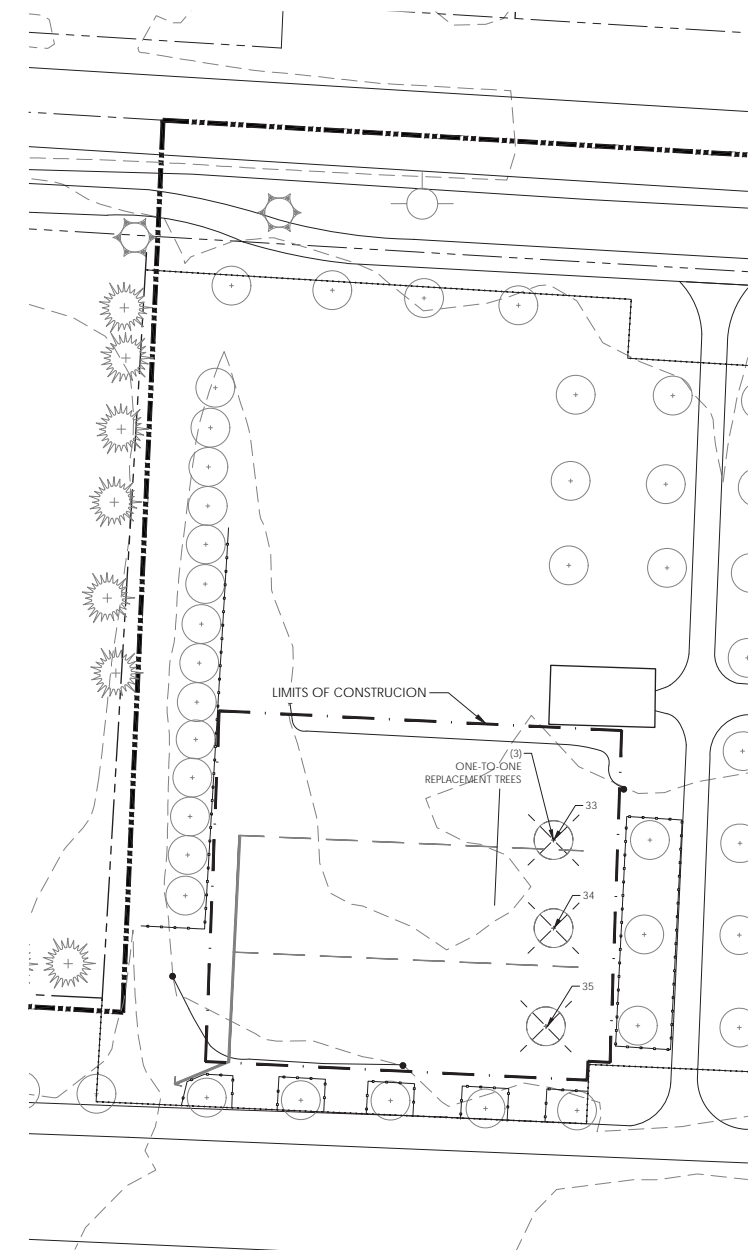
Sheet Title

DEMOLITION & SITE PREPARATION PLAN:

TENNIS COURTS

Sheet #

L1.0



Demolition and Site Preparation: Sand Volleyball Courts
SCALE: 1" = 16'

EXISTING TREE CONDITION AND STATUS KEY

CONDITION	STATUS
EXCELLENT	(A) PRESERVE
GOOD	(A) PRESERVE OR (B) REMOVE
FAIR	(A) PRESERVE OR (B) REMOVE
POOR	(B) REMOVE AS NOTED
DEAD	(B) REMOVE AS NOTED

ONE-TO-ONE TREE REPLACEMENT INFORMATION

NUMBER	LOCATION	SIZE	STATUS	CONDITION
32	TENNIS COURT	2.5 CAL.	B	GOOD
33	SAND VOLLEYBALL COURT	2.5 CAL.	B	GOOD
34	SAND VOLLEYBALL COURT	2.5 CAL.	B	GOOD
35	SAND VOLLEYBALL COURT	2.5 CAL.	B	GOOD

NOTES FOR TREES REMOVED

112 CALIPER INCHES OF TREE WHICH ARE TO BE REMOVED DUE TO THE POOR, FAIR, DEAD, OR EXEMPT CONDITIONS. REPLACEMENT CALIPER SHALL MATCH INCH FOR CALIPER INCH.

DUE TO THE ABOVE CONDITIONS, TOTAL TREES TO BE REMOVED:
CALCULATED TOTAL COMBINED 112 CALIPER INCHES/ 2.5 CALIPER INCHES = 49 TREES

TOTAL ADDITIONAL TREES TO REPLACE EXISTING, MARKED AS "ONE-TO-ONE REPLACEMENT" =
4 TREES (3 AT VOLLEYBALL COURT AREA + 1 IN TENNIS COURT AREA)

TOTAL TREES REQUIRED FOR REPLACEMENT:
49 + 4 = 53

GENERAL TREE REPLACEMENT NOTES

- REFER TO SHEET L4.2 FOR NOTES OF TREE REMOVAL AND REPLACEMENT REQUIREMENTS
- REFER TO SHEET L4.3 FOR THE REPLACEMENT AND PLANTING PLAN

LEGEND

	LIMIT OF WORK/CONSTRUCTION FENCING PERIMETER
	EXISTING TREE TO REMAIN AND BE PROTECTED
	EXISTING TREE & STUMP TO BE REMOVED
	EXISTING LIGHT POLE TO REMAIN
	EXISTING FENCE TO REMAIN
	EXISTING LANDSCAPE TO BE REMOVED, SEE PLAN
	EXISTING PLANTING TO REMAIN
	TREE PROTECTION FENCING

GENERAL DEMOLITION NOTES

- THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL DEMOLITION WORK WITH OWNERS REPRESENTATIVE ON A DAILY BASIS.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL CONTACT UTILITY SERVICES TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES.
- CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ANY DAMAGE, WHETHER INSIDE OR OUTSIDE OF THE PROJECT LIMITS, TO UTILITY SYSTEMS, SURFACE PAVEMENTS, FIXTURES OR STRUCTURES THAT ARE NOT SPECIFICALLY INDICATED TO BE REMOVED OR RELOCATED AS PART OF THE PROJECT CONSTRUCTION.
- EXISTING STRUCTURES, PLANTS, AND ANY IMPROVEMENTS WHICH ARE NOT NOTED TO BE REMOVED SHALL BE PROPERLY PROTECTED DURING THE CONSTRUCTION PERIOD. EXISTING TREES SHALL BE PROTECTED FROM IMPACT BY ANY EQUIPMENT AS WELL AS COMPACTION OF ROOT ZONE AREAS.
- ALL TREE PROTECTION ZONE FENCING SHALL BE STAKED AT LEAST 5' BEYOND EXISTING TREE CANOPY CIRCLE.
- PROVIDE STURDY, UPRIGHT METAL STAKES TO HOLD ALL CONSTRUCTION FENCING MESH AROUND ALL TREES AND STRUCTURES TO BE RETAINED AND PROTECTED.
- UNDER NO CIRCUMSTANCES SHALL ANY DEBRIS, TRACKING, OR EQUIPMENT GO OVER OR BE SET OVER EXISTING TREE ROOT SYSTEMS.
- ALL DEBRIS AND ITEMS REMOVED SHALL BE DISPOSED OF LEGALLY OFF-SITE.
- IF BURIED IRRIGATION EXISTS, THE PIPE MAY BE ABANDONED IN PLACE IF IT WILL NOT INTERFERE WITH ANY NEW WORK. BE EMBEDDED IN NEW PAVED AREAS, OR REMAIN 4" MINIMUM BELOW ALL UNPAVED FINISH GRADES.
- EXISTING LINES TO BE ABANDONED MAY BE CAPPED OFF AT POINTS WHERE CONSTANT PRESSURE IS TO BE MAINTAINED.
- EXISTING FOUNDATIONS OF ABANDONED UTILITIES SHALL BE COMPLETELY REMOVED BELOW THE FOOTPRINT OF NEW FOUNDATIONS.
- ALL DIMENSIONS ON THIS DRAWING ARE IN ARCHITECTURAL FEET UNLESS OTHERWISE STATED.



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion

4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SO/JD
Scale As Noted

Revisions

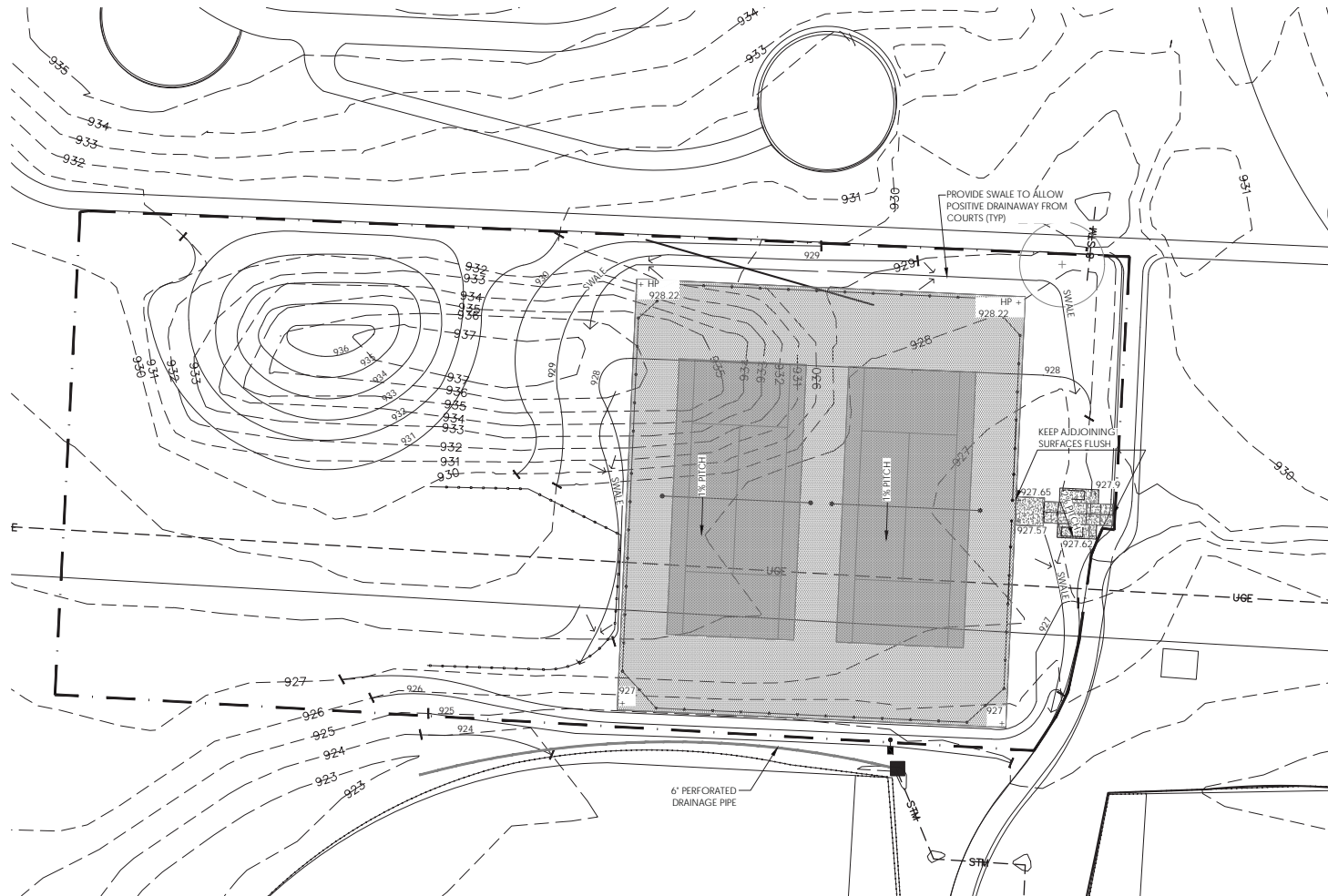
Sheet Title

DEMOLITION, PREPARATION & REPLACEMENT PLAN:

SAND VOLLEYBALL COURTS

Sheet #

L1.1



Grading Plan: Tennis Courts

SCALE: 1/16" = 1'-0"



GRADING NOTES

- CONTRACTOR TO VERIFY WITH THE OWNER'S REPRESENTATIVE AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO START. CALL OHIO UTILITIES PROTECTION SERVICES AT (800)362-2764. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LANDSCAPE INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS. NO WORK SHALL BE DONE IN AREAS WHERE SUCH DISCREPANCIES EXIST.
- CONTRACTOR SHALL COORDINATE ALL WORK AND BE RESPONSIBLE FOR ALL METHODS, MEANS, SEQUENCE, AND PROCEDURES OF THE WORK.
- DO NOT DISTURB AREAS OUTSIDE OF PROJECT LIMITS.
- MAXIMUM SLOPES SHALL NOT EXCEED 3:1 IN LAWN AND PLANTING AREAS, UNLESS OTHERWISE INDICATED ON THE PLANS. MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.
- CROSS SLOPES AT ALL WALKS SHALL NOT EXCEED 2%, UNLESS OTHERWISE INDICATED ON THE PLANS. MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.
- PRESERVE EXISTING FACILITIES DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING FACILITIES RESULTING FROM CONSTRUCTION ACTIVITIES.
- GRADES SHOWN INDICATE FINISH SURFACE OF FINAL PAVEMENT. VERIFY DEPTH OF PAVEMENT SECTION PRIOR TO ROUGH GRADING.
- PROVIDE POSITIVE DRAINAGE FROM ALL PAVEMENT SURFACES TO CURB OR INLETS AS INDICATED (1% MINIMUM). NO PONDING WILL BE PERMITTED.
- PROTECT EXISTING TREES, SHRUBS, AND GROUNDCOVERS FROM ANY TYPE OF CONSTRUCTION TRAFFIC. CARE SHOULD BE TAKEN TO NOT COMPACT SOIL OR ADD SOIL DEPTH WITHIN DRIP LINES OF EXISTING TREES. LIMIT WORK TO DISTURBED AREAS ONLY. PROVIDE TREE PROTECTION FENCING AS INDICATED ON PLAN AND PER TREE PROTECTION DETAIL. COORDINATE WITH OWNER'S REPRESENTATIVE AS REQUIRED.

EXISTING VEGETATION LEGEND

- LIMIT OF WORK/CONSTRUCTION FENCING PERIMETER
- EXISTING TREE TO REMAIN AND BE PROTECTED

GRADING LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- PROPOSED SLOPE
- PROPOSED AREA DRAIN
- EXISTING AREA DRAIN
- EXISTING STORM PIPE
- 4" PERFORATED PIPE
- UNIT PAVEMENT TRENCH DRAIN
- TREE PROTECTION FENCING

GRADING ABBREVIATIONS

- BC = BOTTOM OF CURB
- BS = BOTTOM OF STAIR
- BW = BOTTOM OF WALL
- BP = BREAK POINT
- EP = EDGE OF PAVEMENT
- RIM = RIM ELEVATION
- INV = INVERT
- MEG = MEET EXISTING GRADE
- FFE = FINISH FLOOR ELEVATION
- TC = TOP OF CURB
- TS = TOP OF STAIR
- TW = TOP OF WALL
- HP = HIGH POINT
- LP = LOW POINT
- THP = TRENCH DRAIN HIGH POINT
- TLP = TRENCH DRAIN LOW POINT



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion

4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SO/JD
Scale As Noted

Revisions



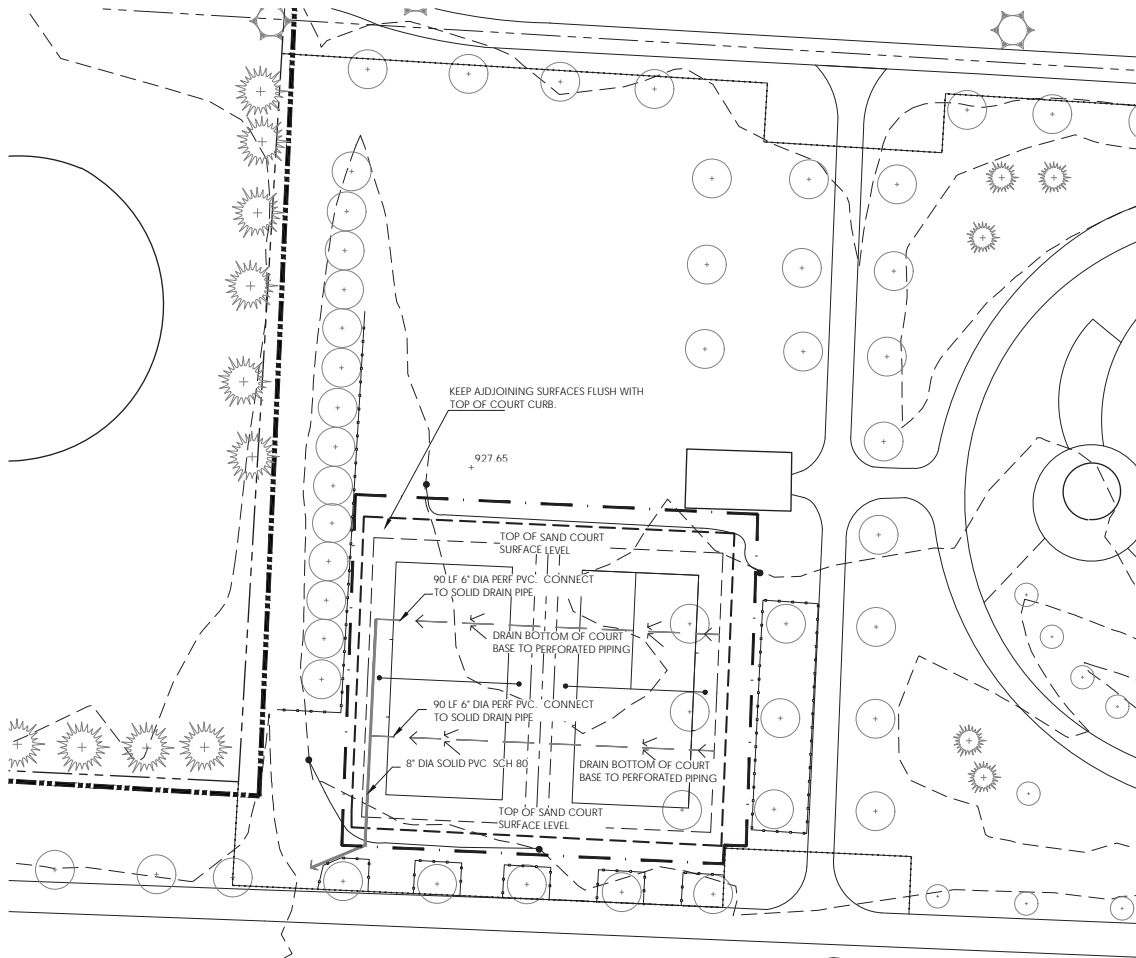
Sheet Title

GRADING & DRAINAGE PLAN:

TENNIS COURTS

Sheet #

L2.0



Grading & Drainage Plan: Sand Volleyball Courts

SCALE: 1/16" = 1'-0"



GRADING NOTES

1. CONTRACTOR TO VERIFY WITH THE OWNER'S REPRESENTATIVE AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO START. CALL OHIO UTILITIES PROTECTION SERVICES AT (800)362-2764. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LANDSCAPE INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
2. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS. NO WORK SHALL BE DONE IN AREAS WHERE SUCH DISCREPANCIES EXIST.
3. CONTRACTOR SHALL COORDINATE ALL WORK AND BE RESPONSIBLE FOR ALL METHODS, MEANS, SEQUENCE, AND PROCEDURES OF THE WORK.
4. DO NOT DISTURB AREAS OUTSIDE OF PROJECT LIMITS.
5. MAXIMUM SLOPES SHALL NOT EXCEED 3:1 IN LAWN AND PLANTING AREAS, UNLESS OTHERWISE INDICATED ON THE PLANS. MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.
6. CROSS SLOPES AT ALL WALKS SHALL NOT EXCEED 2%, UNLESS OTHERWISE INDICATED ON THE PLANS. MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.
7. PRESERVE EXISTING FACILITIES DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING FACILITIES RESULTING FROM CONSTRUCTION ACTIVITIES.
8. GRADES SHOWN INDICATE FINISH SURFACE OF FINAL PAVEMENT. VERIFY DEPTH OF PAVEMENT SECTION PRIOR TO ROUGH GRADING.
9. PROVIDE POSITIVE DRAINAGE FROM ALL PAVEMENT SURFACES TO CURB OR INLETS AS INDICATED (1% MINIMUM). NO PONDING WILL BE PERMITTED.
10. PROTECT EXISTING TREES, SHRUBS, AND GROUNDCOVERS FROM ANY TYPE OF CONSTRUCTION TRAFFIC. CARE SHOULD BE TAKEN TO NOT COMPACT SOIL OR ADD SOIL DEPTH WITHIN DRIP LINES OF EXISTING TREES. LIMIT WORK TO DISTURBED AREAS ONLY. PROVIDE TREE PROTECTION FENCING AS INDICATED ON PLAN AND PER TREE PROTECTION DETAIL. COORDINATE WITH OWNER'S REPRESENTATIVE AS REQUIRED.

DRAINAGE PIPE NOTES

1. LAY OUT TWO PERFORATED DRAINAGE PIPES PER COURT, ONE ON EACH END, WITH THE OPEN END AT THE LOW POINT OF THE COURT. INSTALL DRAINAGE PIPE ON THE STANDARD LEACH SLANT (14 DEGREES). USE 6 INCH SCHEDULE 40 PVC PERFORATED PIPES FOR DRAINAGE. THE PIPES SHALL BE CONNECTED TO THE NEAREST STORM WATER MANHOLE.

EXISTING VEGETATION LEGEND

- — — — — LIMIT OF WORK/CONSTRUCTION FENCING PERIMETER
- ⊕ EXISTING TREE TO REMAIN AND BE PROTECTED

GRADING LEGEND

- — — — — PROPERTY LINE
- - - - - XXXX - - - EXISTING CONTOUR
- XXX — PROPOSED CONTOUR
- × 000.00 EXISTING SPOT ELEVATION
- XXX.XX PROPOSED SPOT ELEVATION
- ← X% PROPOSED SLOPE
- Y.D. PROPOSED AREA DRAIN
- EXISTING AREA DRAIN
- — — — — EXISTING STORM PIPE
- — — — — 4" PERFORATED PIPE
- ===== UNIT PAVEMENT TRENCH DRAIN
- + — — — — TREE PROTECTION FENCING

GRADING ABBREVIATIONS

- BC = BOTTOM OF CURB
- BS = BOTTOM OF STAIR
- BW = BOTTOM OF WALL
- BP = BREAK POINT
- EP = EDGE OF PAVEMENT
- RIM = RIM ELEVATION
- INV = INVERT
- MEG = MEET EXISTING GRADE
- FFE = FINISH FLOOR ELEVATION
- TC = TOP OF CURB
- TS = TOP OF STAIR
- TW = TOP OF WALL
- HP = HIGH POINT
- LP = LOW POINT
- THP = TRENCH DRAIN HIGH POINT
- TLP = TRENCH DRAIN LOW POINT



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion
4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SO/JD
Scale As Noted

Revisions



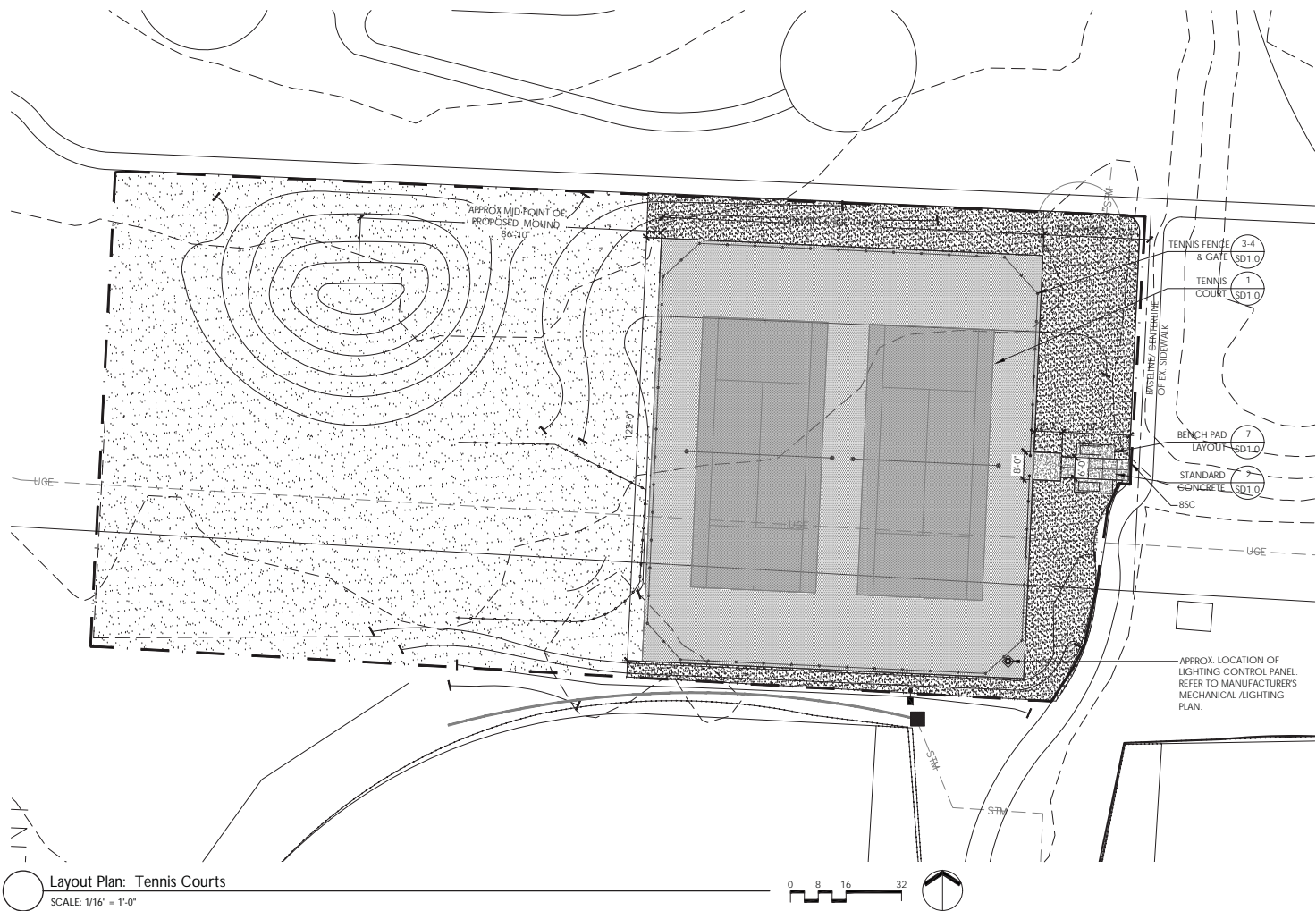
Sheet Title

GRADING & DRAINAGE PLAN:

SAND VOLLEYBALL COURTS

Sheet

L2.1



- LAYOUT LEGEND
- +— LIMIT OF WORK/ CONSTRUCTION FENCE PERIMETER
 - CENTERLINE
 - - - PROPERTY LINE
 - (X/XX) DETAIL CALLOUT
 - 15'-0" LINEAR DIMENSION
 - (PA) PLANT AREA
 - EXISTING UTILITY
 - CONCRETE PAVING
 - COURT SURFACE (SEE DETAILS)
 - COURT GAMES
 - - - EXPANSION JOINT (SEE DETAIL 1, SHEET)
 - APPROXIMATE LOCATION OF LIGHTING / MECHANICAL COMPONENT. VERIFY WITH CITY OF DUBLIN'S REPRESENTATIVE FOR SPECIFICATIONS AND LAYOUT REQUIREMENTS
 - LAWN AREA- SEED OR SOD PER OWNER'S DIRECTION. REPAIR EXISTING DAMAGED DUE TO NEW CONSTRUCTION.
 - PLANTING BED
 - CONCRETE SIDEWALK
 - INTEGRAL CURB
 - CONCRETE CURB
 - - - EXPANSION JOINT (SEE DETAIL 1, SHEET)
 - CONTROL JOINT (SEE DETAIL 1, SHEET)
 - PROPOSED FENCE/GATE
 - BENCH
 - TREE PROTECTION FENCING

NOTES:

CONTACT FOR LIGHTING AND MECHANICAL SPECIFICATIONS:

MUSCO - TOTAL LIGHT CONTROL FOR LED (TLC)
JOHN KAUFMAN - (614) 937-9584
JOHN.KAUFMAN@MUSCO.COM



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name
Emerald Fields Expansion
4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For
Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info
Project # 16038
Date 08/01/17
By SO/JD
Scale As Noted

Revisions

Sheet Title
LAYOUT PLAN:

TENNIS COURTS

Sheet #

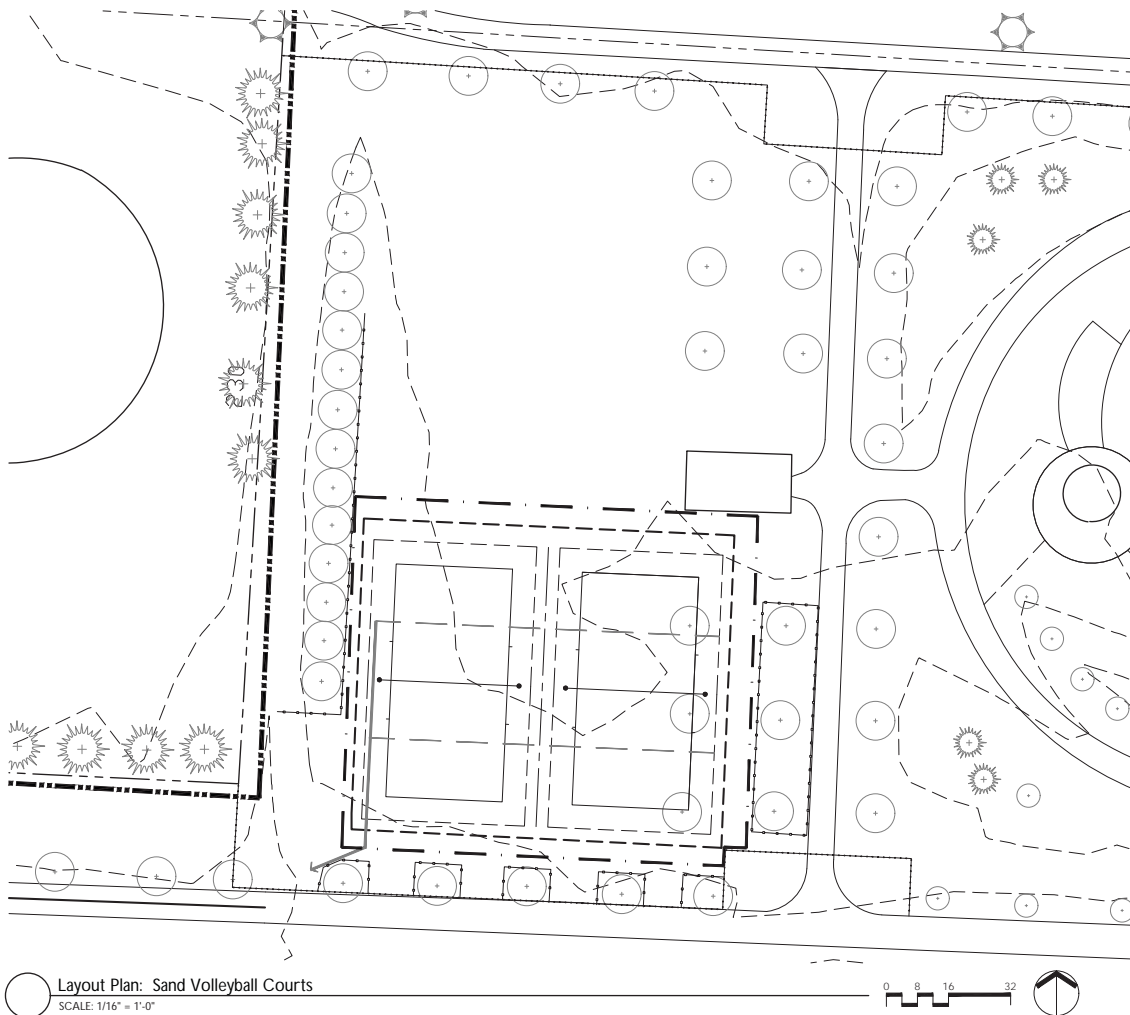
L3.0

GENERAL LAYOUT NOTES

- CONTRACTOR TO VERIFY WITH THE OWNER'S REPRESENTATIVE AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO START. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LANDSCAPE INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS. NO WORK SHALL BE DONE IN AREAS WHERE SUCH DISCREPANCIES EXIST.
- DO NOT SCALE DRAWINGS. UTILIZE DIMENSIONS INDICATED ON THE PLANS. THE CONTRACTOR SHALL COORDINATE ALL WORK AND BE RESPONSIBLE FOR ALL METHODS, MEANS, SEQUENCE, AND PROCEDURES OF THE WORK.
- UNLESS OTHERWISE INDICATED ON THE PLANS, ALL LINE WORK, LAYOUT AND DIMENSIONS ARE PARALLEL AND PERPENDICULAR TO ONE ANOTHER.
- DO NOT DISTURB AREAS OUTSIDE OF PROJECT LIMITS.
- PROTECT EXISTING FACILITIES DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING FACILITIES RESULTING FROM CONSTRUCTION ACTIVITIES.
- NOTIFY OWNER AND OWNER'S REPRESENTATIVE TO REVIEW LAYOUT STAKING AND DIRECT FIELD MODIFICATIONS AS NEEDED PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITIES.

GENREL ELECTRIC NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL ELECTRICAL ORDINANCES. CONSULT WITH THE CITY'S LOCAL ELECTRICIAN OR ENGINEER FOR CONDUIT SIZE, WIRE SIZE, CIRCUIT INFORMATION, AND SWITCHING OPTIONS. PROVIDE NECESSARY PERMITS.
- CONFIRM WITH THE MANUFACTURER'S SPECIFICATIONS AND THE CITY OF DUBLIN CODES ON THE ELECTRICAL SYSTEM, POLES, AND FIXTURE REQUIREMENTS. PROVIDE A SITE VISIT TO CONFIRM THE LOCATION OF THE FOLLOWING COMPONENTS: TRANSFORMER, CONTROL SYSTEM PANEL, TIMER BUTTON SYSTEM, OVERRIDE CONTROLLER.
- PROVIDE THE CITY OF DUBLIN THE PANEL BOARD SCHEDULE SETTINGS
- MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED, ARE TO CENTER LINE OF EQUIPMENT, EXCEPT MOUNTING HEIGHTS OF LIGHTING FIXTURES WHICH IS TO BOTTOM OF FIXTURE.
- CONFIRM WITH THE CITY OF DUBLIN FOR MECHANICAL EQUIPMENT LOCATIONS.
- PROVIDE GROUNDING CONDUCTORS IN ALL BRANCH CIRCUIT RACEWAYS. SEPARATE NEUTRALS SHALL BE PROVIDED FOR EACH RECEPTACLE BRANCH CIRCUIT.
- COORDINATE WITH THE CITY OF DUBLIN'S REPRESENTATIVE ON ALL LIGHTING POST LAYOUT.
- PROVIDE LOCKABLE PANEL AND JUNCTION BOXES IN ACCESSIBLE LOCATIONS, AS PER CITY'S REQUIRED LOCATIONS. PROVIDE FUSES IN DISCONNECT SWITCHES AS RECOMMENDED BY THE MANUFACTURER OF THE CONNECTED EQUIPMENT.
- VERIFY WITH THE OWNER'S REPRESENTATIVE AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO START. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LIGHTING INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
- WE RECOMMEND THAT YOU INSTALL UNDERGROUND WIRING IN CONDUIT BETWEEN POLES AND BACK TO THE POWER SOURCE FOR FUTURE MAINTENANCE ON ALL TENNIS COURT AND SPORT LIGHTING APPLICATIONS. ALWAYS SELECT THE HIGHEST VOLTAGE AVAILABLE TO OPERATE YOUR SYSTEM TO PREVENT VOLTAGE DROP. ALL OUR TENNIS LIGHTING FIXTURES ARE EQUIPPED WITH MULTI-TAP BALLAST THAT OPERATES AT 120, 208, 240, OR 277 VOLTS. MAINTAINING GOOD VOLTAGE WILL PREVENT POOR LIGHTING PERFORMANCE AND IMPROVE ENERGY CONSUMPTION.



LAYOUT LEGEND	
	LIMIT OF WORK/ CONSTRUCTION FENCE PERIMETER
	CENTERLINE
	PROPERTY LINE
	DETAIL CALLOUT
	15'-0" LINEAR DIMENSION
	PLANT AREA
	EXISTING UTILITY
	CONCRETE PAVING
	COURT SURFACE (SEE DETAILS)
	COURT GAMES
	EXPANSION JOINT (SEE DETAIL 1, SHEET)
	LAWN AREA- SEED OR SOD PER OWNER'S DIRECTION. REPAIR EXISTING DAMAGED DUE TO NEW CONSTRUCTION.
	PLANTING BED
	CONCRETE SIDEWALK
	INTEGRAL CURB
	CONCRETE CURB
	EXPANSION JOINT (SEE DETAIL 1, SHEET)
	CONTROL JOINT (SEE DETAIL 1, SHEET)
	PROPOSED FENCE/GATE
	BENCH
	TREE PROTECTION FENCING

GENERAL LAYOUT NOTES

- CONTRACTOR TO VERIFY WITH THE OWNER'S REPRESENTATIVE AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO START. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LANDSCAPE INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS. NO WORK SHALL BE DONE IN AREAS WHERE SUCH DISCREPANCIES EXIST.
- DO NOT SCALE DRAWINGS. UTILIZE DIMENSIONS INDICATED ON THE PLANS. THE CONTRACTOR SHALL COORDINATE ALL WORK AND BE RESPONSIBLE FOR ALL METHODS, MEANS, SEQUENCE, AND PROCEDURES OF THE WORK.
- UNLESS OTHERWISE INDICATED ON THE PLANS, ALL LINE WORK, LAYOUT AND DIMENSIONS ARE PARALLEL AND PERPENDICULAR TO ONE ANOTHER.
- DO NOT DISTURB AREAS OUTSIDE OF PROJECT LIMITS.
- PROTECT EXISTING FACILITIES DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING FACILITIES RESULTING FROM CONSTRUCTION ACTIVITIES.
- NOTIFY OWNER AND OWNER'S REPRESENTATIVE TO REVIEW LAYOUT STAKING AND DIRECT FIELD MODIFICATIONS AS NEEDED PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITIES.



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name
Emerald Fields Expansion
4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For
Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project #	16038
Date	08/01/17
By	SO/JJD
Scale	As Noted

Revisions

Sheet Title
LAYOUT PLAN:

SAND VOLLEYBALL COURTS

Sheet #
L3.1

PLANT INSTALLATION NOTES

1. REFER TO GENERAL NOTES ON SHEET L1.0.
2. PLANT MATERIAL SHALL BE FURNISHED IN THE QUANTITIES AND LAYOUT AS SHOWN. IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.
3. CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF ALL SITE ELEMENTS AND IMMEDIATELY INFORM THE CITY'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS. NO WORK SHALL BE DONE IN ANY AREA WHERE THERE IS A DISCREPANCY WITHOUT OWNERS REPRESENTATIVE APPROVAL.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADING IN THE PROJECT REQUIRED TO PROVIDE A PROPER SEED AND PLANTING BED.
5. ALL PLANT MATERIAL TO MEET OR EXCEED AMERICAN STANDARD FOR NURSERY STOCK, 1986 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSEYMEN.
6. ALL PLANT MATERIALS SUBJECT TO INSPECTION PRIOR, DURING AND AFTER INSTALLATION. ANY PLANT NOT MEETING THE REQUIREMENTS WILL BE CAUSE FOR REJECTION BY THE OWNERS REPRESENTATIVE. ALL REJECTED PLANTS SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF BY THE CONTRACTOR AND THE REPLACEMENT MATERIAL SHALL BE PROVIDED.
7. ALL SUBSTITUTIONS AND PLAN CHANGES MUST BE APPROVED BY CITY'S REPRESENTATIVE PRIOR TO ANY ACTION TAKEN. TREES SHALL BE PROTECTED AND HANDLED CAREFULLY AT ALL TIMES DURING TRANSPORT & HANDLING TO PREVENT DRYING OF TREE OR ROOT BALL BY WINDS AND TO PREVENT ANY DAMAGE OR BREAKAGE OF THE ROOT BALL. BARK SHALL BE PROTECTED FROM BRUISING OR ABRASION.
8. WATER TREES IMMEDIATELY AFTER PLANTING AND CONTINUE TO WATER UNTIL FINAL ACCEPTANCE BY OWNERS REPRESENTATIVE.
9. PLANT LOCATIONS AND BEDS SHALL BE LOCATED BY CONTRACTOR AND APPROVED BY CITY'S REPRESENTATIVE PRIOR TO PLANT INSTALLATION.
10. MULCH PLANTING BEDS WITH TWO INCHES (2") DEPTH OF DARK, SHREDDED HARDWOOD MULCH. SUBMIT SAMPLE TO OWNER FOR APPROVAL.
11. ALL AREAS OUTSIDE OF PLANTING BEDS SHALL BE SEEDED OR SODDED AS SHOWN ON THE PLANS AND NOTED IN THE TECHNICAL SPECIFICATIONS.
12. FINISHED TURF (SOD OR SEED) TO BE FLUSH WITH TOP OF ADJACENT CURB OR WALK. COORDINATE WITH OWNERS REPRESENTATIVE IN FIELD AS REQUIRED.
13. THE CONTRACTOR SHALL GUARANTEE ALL TREES FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. REPLACE MATERIAL WITHIN SEVEN (7) DAYS OF NOTIFICATION OF THE OWNERS REPRESENTATIVE.
14. PERFORM CLEANING DURING INSTALLATION OF LANDSCAPE WORK AND UPON COMPLETION. REMOVE FROM SITE ALL EXCESS LANDSCAPE RELATED MATERIAL, SOIL DEBRIS AND EQUIPMENT. REPAIR DAMAGE RESULTING FROM LANDSCAPING OPERATIONS. SWEEP AND HOSE DOWN PAVED SURFACES AFFECTED BY LANDSCAPING OPERATIONS. COORDINATE WITH OWNERS REPRESENTATIVE AND OTHER CONTRACTORS FOR FINAL CLEANUP PRIOR TO CLEANNING.

QUALITY ASSURANCE:

1. INSTALLER QUALIFICATIONS: ENGAGE AN EXPERIENCED INSTALLER WHO HAS COMPLETED LANDSCAPING WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL TREE AND SHRUB ESTABLISHMENT.
2. INSTALLERS FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON THE PROJECT SITE DURING TIMES THAT TREE AND SHRUB PLANTING IS IN PROGRESS.
3. PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF TREES INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK."
4. OBSERVATION: LANDSCAPE ARCHITECT RETAINS RIGHT TO OBSERVE PLANTS FURTHER FOR SIZE AND CONDITION OF ROOT BALLS AND ROOT SYSTEMS, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED TREES PLANTS IMMEDIATELY FROM PROJECT SITE.

GENERAL PLANT NOTES

1. EACH TREE THAT IS PLANTED IN TURF SHALL HAVE A 6" DIAMETER MULCH RING.
 2. CONTRACTOR MAY SLIGHTLY FIELD ADJUST PLANT LOCATIONS AS NECESSARY TO AVOID UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE.
 3. BED EDGE SHALL BE SMOOTH, CONSISTENT, HAND TRENCHED 3" TO 4" DEEP AND "Y" SHAPED UNLESS OTHERWISE NOTED. ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE BED EDGE AND PLANTING BED.
 4. ALL PLANTING BED EDGES TO BE SMOOTH FLOWING ARCS OR STRAIGHT LINES AS SHOWN ON PLAN. PLANT LOCATIONS AND LAYOUT OF BEDS SHALL BE LOCATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO PLANTING.
 5. RAISED BEDS, INCLUDING MULCH, SHALL BE NO HIGHER THAN 6 INCHES ABOVE ADJACENT GRADE.
- SEEDING:**
1. DO NOT START FINISH SEEDING WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED AND AFTER ROUGH GRADING, FINISH GRADING AND ANY OTHER WORK AFFECTING GROUND SURFACE IS COMPLETED.
 2. REMOVE STONES, STICKS, CONSTRUCTION DEBRIS, AND OTHER DELETERIOUS DEBRIS.
 3. DELAY TILLING IF THE GROUND IS WET; THE SOIL MUST BE DRY ENOUGH TO BREAK APART WHEN TILLED.
 4. SEED ALL AREAS WITHIN CONTRACT LIMITS THAT ARE NOT COVERED BY PAVING, BUILDINGS OR PLANTING BEDS UNLESS OTHERWISE NOTED. SEEDING SHALL NOT BEGIN UNTIL AREA HAS RECEIVED TOPSOIL AND FINISHED GRADE.
 5. GRADE LAWN AREAS TO A SMOOTH, FREE-DRAINAGE EVEN SURFACE WITH A LOOSE, MODERATELY COARSE TEXTURE. ROLL, AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS AS REQUIRED TO DRAIN. SURFACE SHALL BE GRADED TO SUCH ELEVATION SO THE LAWN SHALL BE FLUSH WITH ANY ADJACENT TURF AREA, PAVEMENT OR CURB.
 6. INSURE THAT SOIL AT ALL PAVEMENT EDGES WHERE LAWN WILL BE ESTABLISHED ARE HAND TAMPED TO MINIMIZE SETTLING.
 7. FOLLOW SUPPLIER'S RECOMMENDED SEEDING APPLICATION RATE AND INSTALLATION PROCEDURES.
 8. RAKE FINISH GRADE LIGHTLY UNTIL SURFACE IS SMOOTH, LOOSE, PULVERIZED.
 9. SPREAD EVENLY SOWING EQUAL QUANTITIES IN 2 DIRECTIONS, AT RIGHT ANGLES TO EACH OTHER.
 10. RAKE OR DRAG SURFACE OF THE SOIL LIGHTLY TO INCORPORATE SEED INTO TOP 1/8" OF SOIL.
 11. IMMEDIATELY AFTER SEEDING, COVER AREAS WITH APPROVED MULCH; EVENLY SPREAD AT A RATE OF 2 ½ TONS PER ACRE. WATERING: FOLLOWING INSTALLATION OF SEEDED LAWNS, ENTIRE AREA WILL BE WATERED BY USE OF LAWN SPRINKLERS. INITIAL WATERING SHALL CONTINUE UNTIL THE EQUIVALENT OF 2" DEPTH OF WATER HAS BEEN APPLIED OVER THE ENTIRE LAWN AREA, AT A RATE, WHICH WILL NOT DISLODGE SEED. WATERING METHODS AND EQUIPMENT WHICH MAY CAUSE EROSION AND / OR COMPACTION OF THE SURFACE WILL NOT BE PERMITTED.

SEEDING SCHEDULE

1. CONFIRM WITH LANDSCAPE ARCHITECT WATERING SCHEDULE REQUIREMENTS DURING AND AFTER INSTALLATION.
2. CONFIRM DIRECTIONS FROM SEED MIX SUPPLIERS FOR TYPICAL LOCAL INSTALLATION SCHEDULING:
SEED OVER TREATED BEDS DURING DECEMBER 15TH - JANUARY 15
FALL SEEDING BETWEEN SEPTEMBER 15 - DECEMBER 15
COVER CROP INSTALLATION NO LATER THAN OCTOBER 15
NO SEEDING BETWEEN JUNE 15TH - SEPTEMBER 15

IMPORTED SOIL AMENDMENTS:

1. UNLESS OTHERWISE STATED, IT IS EXPECTED THAT THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THE WORK DESCRIBED HEREIN IN STRICT ACCORDANCE WITH THE DRAWINGS AND/OR TERMS OF THE CONTRACT.
2. IF SOIL IS NEEDED TO INSURE POSITIVE DRAINAGE, PROVIDE IMPORTED TOPSOIL.
3. PROVIDE TOPSOIL AS PER ASTM D 5268, FERTILE, FRIABLE, NATURALLY LOAMY, PH RANGE OF 5.5 TO 7, 4 PERCENT ORGANIC MATERIAL MINIMUM, FREE OF TREE ROOTS, STUMPS, BUILDING MATERIAL, AND TRASH, AND SHALL BE FREE OF STONES LARGER THAN 1 1/2 INCHES IN ANY DIMENSION. TOPSOIL SHALL BE FREE OF QUACKGRASS RHIZOMES (AGROPYRON REPENS) AND THE NUT-LIKE TUBERS OF NUTSEDGE (CYPERUS ESCULENTUS).
4. SEEDED AND SODDED AREAS: FILL DEPRESSIONS WITH ON-SITE STOCKPILE SOIL.

GRADING:

1. TOPSOIL THAT IS IMPORTED ON SITE SHALL BE UNIFORMLY DISTRIBUTED ON THE DESIGNATED AREAS. SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT PLANTING INSTALLATION CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOP SOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR CROWNS. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION OR WHEN THE SUB-GRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SEEDING, SODDING, AND PLANTING INSTALLATION.
2. ALL PREVIOUSLY ESTABLISHED GRADES SHALL BE MAINTAINED IN CONFORMANCE WITH THE DRAWINGS AND/OR OTHER SPECIFICATIONS.
3. TILLAGE: ANY APPLIED LIME AND FERTILIZER SHALL BE UNIFORMLY MIXED INTO THE TOP FOUR INCHES OF SOIL.
4. ANY UNDULATIONS OR IRREGULARITIES IN THE SURFACE RESULTING FROM FERTILIZING, LIMING, OR OTHER CAUSES SHALL BE LEVELED PRIOR TO TURFGRASS SEED OR SOD INSTALLATION. AREAS DAMAGED BY FLOODING OR EROSION SHALL BE RECONSTRUCTED AND ALL GRADES REESTABLISHED BY THE LANDSCAPE CONTRACTOR IN ACCORDANCE WITH THE DRAWINGS AND/OR OTHER APPLICABLE SPECIFICATIONS.
5. CARE SHOULD BE TAKEN TO KEEP EQUIPMENT OFF PREPARED AREAS AFTER TOPSOIL MIX HAS BEEN PLACED. PARTICULAR CARE SHOULD BE TAKEN TO AVOID "COMPACTION" DURING THE GRADING PROCESS. THE USE OF CLAY SOILS FOR GRADING MATERIAL AND THE UTILIZATION OF HEAVY EQUIPMENT FOR SURFACE PREPARATION WILL CONTRIBUTE TO SOIL COMPACTION.

ACCEPTANCE:

1. ACCEPTANCE SHALL BE GIVEN BY THE OWNER OR HIS OR HER AGENT UPON SATISFACTORY COMPLETION OF EACH SECTION OR AREA INDICATED ON THE DRAWINGS OR AS OTHERWISE SPECIFIED. ACCEPTANCE SHALL BE RECORDED AND SIGNED BY THE OWNER OR AUTHORIZED AGENT.
2. PROVIDE APPROVED EROSION CONTROL MEASURES BEFORE AND AFTER SEEDING, SODDING, AND PLANTING
3. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING UNTIL FINAL ACCEPTANCE

EXCAVATION:

1. PITS AND TRENCHES: EXCAVATE WITH VERTICAL SIDES AND WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO ASSIST DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION.
2. TREES AND SHRUBS: EXCAVATE APPROXIMATELY 3 TIMES AS WIDE AS BALL DIAMETER AND EQUAL TO BALL DEPTH PLUS 9 INCHES SETTING LAYER DEPTH
3. WHERE DRAIN TILE IS SHOWN OR REQUIRED UNDER PLANTED AREAS, EXCAVATE TO TOP OF POROUS BACKFILL OVER TILE.
4. OBSTRUCTIONS: NOTIFY LANDSCAPE ARCHITECT IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS.
5. DRAINAGE: NOTIFY LANDSCAPE ARCHITECT IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PITS.
6. FILL EXCAVATIONS WITH WATER AND ALLOW TO PERCOLATE OUT, BEFORE PLACING SETTING LAYER AND POSITIONING TREES AND SHRUBS.

PLANTING:

1. PLANTS SHOULD BE INSTALLED THE SAME DAY THE HOLES ARE CREATED. SET BALLED AND BURLAPPED STOCK PLUMB AND IN CENTER OF PIT OR TRENCH WITH TOP OF BALL RAISED ABOVE ADJACENT FINISH GRADES AS INDICATED.
 2. PLACE STOCK ON SETTING LAYER OF COMPACTED PLANTING SOIL.
 3. REMOVE BURLAP AND WIRE BASKETS FROM TOPS OF BALLS AND PARTIALLY FROM SIDES, BUT DO NOT REMOVE FROM UNDER BALLS. REMOVE PALLETS, IF ANY, BEFORE SETTING. DO NOT USE PLANTING STOCK IF BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.
 4. DIG HOLES FOR TREES AT LEAST 3X THE WIDTH OF THE CONTAINER OR 8x8.
 5. PLACE BACKFILL AROUND BALL IN LAYERS, TAMPING TO SETTLE BACKFILL AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PIT IS APPROXIMATELY 1/2 BACKFILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE IS ABSORBED. GENEROUSLY SOAK AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF BACKFILL.
 6. BACKFILLING: THOROUGHLY BREAK DOWN THE SOIL THAT HAS BEEN DUG OUT INTO SMALL PIECES AND GRANULES AND MIXED THOROUGHLY WITH SOLID AMENDMENTS AS SPECIFIED AND WITH "ROOTS TRANSPLANT 1 STEP 2-2-2" AND "SIERRABLEN 17-6-10". BACKFILL IS ADDED TO THE HOLE AND TAMPED WITH FEET OR HAND TOOLS AS IT IS PLACED INTO THE PIT. DO NOT USE FROZEN OR MUDDY MIXTURES FOR BACKFILLING. FOR INDIVIDUAL TREES FORM A RING OF SOIL OUTSIDE OF THE BALL EDGE THAT IS APPROXIMATELY 6" WIDE AT THE BASE AND 3" IN HEIGHT TO THE TOP OF THE RING WITH THE EXCESS BACKFILL MIXTURE AS A MEANS TO RETAIN WATER. DO NOT COVER TOP OF THE TREE AND SHRUB ROOT BALL WITH BACKFILL.
 7. DISH AND TAMP TOP OF BACKFILL TO FORM A 3-INCH- HIGH MOUND AROUND THE RIM OF THE PIT. DO NOT COVER TOP OF ROOT BALL WITH BACKFILL.
- SOD: (USE ONLY IF REQUESTED BY OWNER)**
1. TURFGRASS SOD SUPPLIERS: SOD SHALL SUPPLIED BY LOCAL SUPPLIERS, SUCH AS TURPIN FARMS (513)561-2621 OR APPROVED EQUAL.
 2. SOD QUALITY: SOD SHALL BE OF GOOD QUALITY, FREE OF WEEDS, DISEASE AND INSECTS AND OF GOOD COLOR AND DENSITY.
 3. THICKNESS OF CUT: TURF SHALL BE MACHINE-CUT AT A MINIMUM UNIFORM SOIL THICKNESS NECESSARY FOR PLANT VIABILITY DURING THE HARVEST-TRANSPORT-INSTALLATION CYCLE.
 4. PAD SIZE: INDIVIDUAL PIECES OF SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT.
 5. STRENGTH OF SOD SECTIONS: STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY FROM A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
 6. REPLACEMENT: THE POLICY FOR REPLACEMENT OF SOD IS DEPENDENT UPON EACH INDIVIDUAL FARM. MOST REPLACEMENTS EXTEND ONLY TO THE COST OF THE SOD INVOLVED, NOT LABOR OR TRANSPORTATION EXPENSES. NOTIFICATION OF DEFECTIVE SOD MUST BE MADE WITHIN 24 HOURS OF DELIVERY. FAILURE TO NOTIFY THE TURF FARM WITHIN THE SPECIFIED TIME PERIOD CAN RESULT IN THE FARM'S REFUSAL TO REPLACE THE SOD.
 7. NO SOD SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR HERBICIDES UNTIL SUFFICIENT TIME HAS ELAPSED TO PERMIT THE DISSIPATION OF TOXIC MATERIALS. THE LANDSCAPE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY LOSS OR DAMAGE TO SOD ARISING FROM IMPROPER USE OF STERILANTS OR DUE TO HIS OR HER FAILURE TO ALLOW SUFFICIENT TIME TO PERMIT DISSIPATION OF TOXIC MATERIALS, WHETHER OR NOT SUCH STERILANTS ARE SPECIFIED HEREIN.

SOD INSTALLATION: (USE ONLY IF REQUESTED BY OWNER)
CONFIRM WITH SOD FARM SUPPLIER DIRECTIONS FOR PROPER INSTALLATIONS.

1. MOISTENING THE SOIL: AFTER ALL GRADING HAS BEEN COMPLETED, THE SOIL SHALL BE IRRIGATED WITHIN 12 TO 24 HOURS PRIOR TO LAYING THE SOD. SOD SHOULD NOT BE LAID ON SOIL THAT IS DRY AND POWDERY.
2. STARTER STRIP: THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE, WITH SUBSEQUENT ROWS PLACED PARALLEL TO, AND TIGHTLY AGAINST, EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHALL BE EXERCISED TO INSURE THAT THE TURF IS NOT STRETCHED OR OVERLAPPED, AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE AIR-DRYING OF THE ROOTS.
3. WATERING: THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING SOD IMMEDIATELY DURING AND AFTER INSTALLATION TO PREVENT DRYING. IT SHALL THEN BE THOROUGHLY IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSEDE OF THE NEW SOD PAD AND SOIL IMMEDIATELY BELOW THE SOD ARE THOROUGHLY WET (USUALLY 1 INCH OF WATER IS NEEDED).

DELIVERY, STORAGE, AND HANDLING:

1. DELIVER FRESHLY DUG TREES. DO NOT PRUNE BEFORE DELIVERY, EXCEPT AS APPROVED BY LANDSCAPE ARCHITECT. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING DELIVERY. DO NOT DROP TREES AND SHRUBS DURING DELIVERY.
2. IMMEDIATELY AFTER DELIVERING BARE-ROOT STOCK, PACK ROOT SYSTEM IN WET STRAW, HAY, OR OTHER SUITABLE MATERIAL TO KEEP ROOT SYSTEM MOIST UNTIL PLANTING.
3. HANDLE BALLED AND BURLAPPED STOCK BY THE ROOT BALL.
4. DELIVER PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 4 HOURS AFTER COVERING, SET PLANTS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.
5. HEEL-IN BARE-ROOT STOCK. DO NOT DRY OUT ROOT SYSTEMS.
6. SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER ACCEPTABLE MATERIAL.
7. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
8. WATER ROOT SYSTEMS OF TREES AND SHRUBS STORED ON SITE WITH A FINE MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST CONDITION.

COORDINATION AND SCHEDULING:

1. DO NOT PLANT TREES IN FROZEN GROUND OR IN STANDING WATER.
2. PLANT TREES AFTER FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING LAWNS, UNLESS OTHERWISE ACCEPTABLE TO LANDSCAPE ARCHITECT.
3. WHEN PLANTING TREES AFTER LAWNS, PROTECT LAWN AREAS AND PROMPTLY REPAIR DAMAGE CAUSED BY PLANTING OPERATIONS.
4. DETERMINE LOCATION OF ABOVE GRADE AND UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID DAMAGE. HAND EXCAVATE, AS REQUIRED. MAINTAIN GRADE STAKES UNTIL REMOVAL IS MUTUALLY AGREED UPON BY PARTIES CONCERNED.
5. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY LANDSCAPE ARCHITECT BEFORE PLANTING.
6. IF NOTED ON THE DRAWINGS FOR MATCHING PLANTS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER LABEL TO ASSURE SYMMETRY IN PLANTING.

QUALITY REQUIREMENTS

1. SHADE TREES: SINGLE-STEM TREES WITH STRAIGHT TRUNK, WELL-BALANCED CROWN, AND INTACT LEADER. OF HEIGHT AND CALIPER INDICATED, CONFORMING TO ANSI Z60.1 FOR TYPE OF TREES REQUIRED.
BRANCHING HEIGHT: 1/3 TO 1/2 OF TREE HEIGHT.
2. SMALL TREES: SMALL UPRIGHT OR SPREADING TYPE, BRANCHED OR PRUNED NATURALLY ACCORDING TO SPECIES AND TYPE, AND WITH RELATIONSHIP OF CALIPER, HEIGHT, AND BRANCHING RECOMMENDED BY ANSI Z60.1, AND STEM FORM AS FOLLOWS:
FORM: SINGLE STEM
FORM: MULTISTEM, CLUMP, WITH 3 OR MORE MAIN STEMS.
FORM: MULTISTEM, SHRUB, WITH MULTIPLE STEMS.



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion

4040 Wyandotte Woods B

Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SOJ/DJ
Scale As Noted

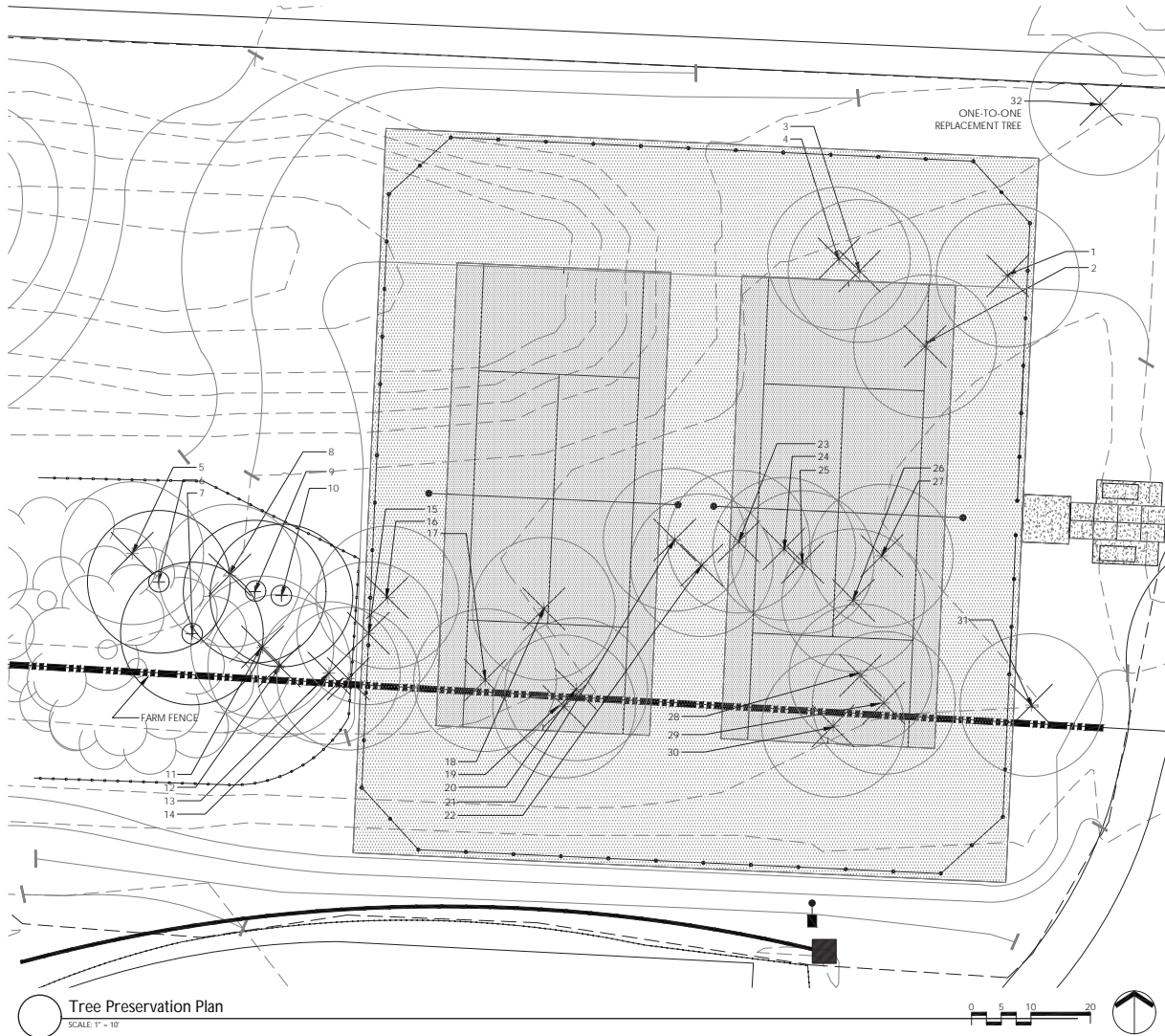
Revisions

Sheet Title

PLANTING NOTES

Sheet #

L4.0



Tree Preservation Plan
SCALE: 1" = 10'

TREE PRESERVATION, REMOVAL, REPLACEMENT NOTES

- ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED. ALL TREE REMOVAL, RELOCATION, AND PRESERVATION WORK SHALL BE SUPERVISED WITH THE INPUT OF A CERTIFIED ARBORIST.
- FENCING SHALL BE INSTALLED AROUND ALL TREES TO BE PRESERVED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION. ANY CHANGES IN THE PROTECTIVE FENCING MUST BE APPROVED BY THE LANDSCAPE INSPECTOR. OWNER SHALL BE RESPONSIBLE FOR THE CONSTRUCTION, ERECTION, AND MAINTENANCE OF PROTECTIVE FENCING. REFER TO TREE PRESERVATION DETAIL.
- PRESERVED TREES REMAINING ARE TO BE FERTILIZED AND PRUNED (IF NEEDED) TWO YEARS AFTER CONSTRUCTION.
- OWNER SHALL MONITOR HEALTH AND VIGOR OF EXISTING TREES THROUGHOUT THE COURSE OF CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO NOTIFY A CERTIFIED ARBORIST IF ANY DECLINE IN HEALTHY TREES IS APPARENT. THE ARBORIST SHALL DETERMINE THE REMEDIAL ACTION, IF ANY, TO BE TAKEN.
- ALL EXISTING TREES NOTED AS FAIR TO POOR HEALTH SHALL BE FERTILIZED YEARLY IN THE SPRING USING A HORTICULTURALLY APPROVED METHOD FOR A PERIOD OF THREE YEARS. AFTER THREE YEARS, THE HEALTH SHOULD BE EVALUATED BY A CERTIFIED ARBORIST AND CONTINUING MAINTENANCE RECOMMENDATIONS SHALL BE MADE.
- ANY TREES REMOVED OR DAMAGED IN TREE PRESERVATION AREAS WILL HAVE TO BE REPLACED PER CODE.
- FAILURE TO ABIDE BY THESE TERMS OR THE TREE PRESERVATION, REMOVAL, AND REPLACEMENT PLAN SHALL BE UNLAWFUL.
- CONTRACTOR SHALL REMOVE METAL FARM FENCE.

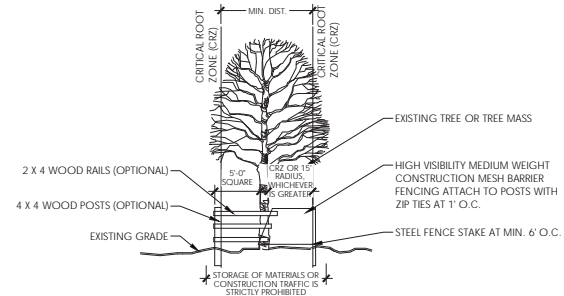
EXISTING TREE CONDITION AND STATUS KEY

CONDITION	STATUS
EXCELLENT	(A) PRESERVE
GOOD	(A) PRESERVE OR (B) REMOVE
FAIR	(A) PRESERVE OR (B) REMOVE
POOR	(B) REMOVE AS NOTED
DEAD	(B) REMOVE AS NOTED

EVALUATION OF EXISTING TREES AT TENNIS COURT

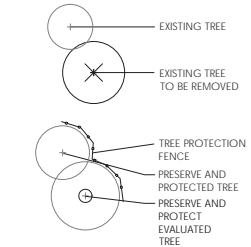
NUMBER	SPECIES	SIZE	STATUS	CONDITION
1	ASH	7" CAL.	B	DEAD
2	ELM	7" CAL.	B	GOOD
3	ASH	8" CAL.	B	DEAD
4	ASH	8" CAL.	B	DEAD
5	BLACK LOCUST	8" CAL.	B	POOR
6	MAPLE	8" CAL.	A	GOOD
7	OAK	18" CAL.	A	GOOD
8	MAPLE	8" CAL.	B	DEAD
9	MAPLE	7" CAL.	A	GOOD
10	OAK	18" CAL.	A	FAIR
11	ASH	8" CAL.	B	DEAD
12	ASH	8" CAL.	B	DEAD
13	ASH	8" CAL.	B	DEAD
14	ASH	9" CAL.	B	DEAD
15	MAPLE	14" CAL.	B	GOOD
16	ASH	9" CAL.	B	DEAD
17	MAPLE	7" CAL.	B	GOOD
18	MAPLE	6" CAL.	B	GOOD
19	ASH	6" CAL.	B	DEAD
20	ASH	12" CAL.	B	DEAD
21	MAPLE	7" CAL.	B	GOOD
22	ASH	8" CAL.	B	DEAD
23	ASH	7" CAL.	B	DEAD
24	MAPLE	8" CAL.	B	GOOD
25	MAPLE	8" CAL.	B	GOOD
26	BLACK LOCUST	8" CAL.	B	FAIR
27	BLACK LOCUST	8" CAL.	B	FAIR
28	HACKBERRY	10" CAL.	B	FAIR
29	HACKBERRY	7" CAL.	B	FAIR
30	ELM	12" CAL.	B	FAIR
31	ELM	10" CAL.	B	FAIR

- NOTES:
- INSPECTION OF INSTALLATION IS REQUIRED CALL (614) 410- 4600
 - THE CITY IS TO BE CONTACTED IF FENCE LOCATION NEEDS TO BE ADJUSTED OR PRIOR TO ANY ENCROACHMENT OF PRESERVATION AREA



Tree Protection Fencing
N.T.S.

PLANT KEY



ONE-TO-ONE TREE REPLACEMENT INFORMATION

NUMBER	LOCATION	SIZE	STATUS	CONDITION
32	TENNIS COURT	2.5 CAL.	B	GOOD
33	SAND VOLLEYBALL COURT	2.5 CAL.	B	GOOD
34	SAND VOLLEYBALL COURT	2.5 CAL.	B	GOOD
35	SAND VOLLEYBALL COURT	2.5 CAL.	B	GOOD

NOTES FOR TREES REMOVED

112 CALIPER INCHES OF TREE WHICH ARE TO BE REMOVED DUE TO THE POOR, FAIR, DEAD, OR EXEMPT CONDITIONS. REPLACEMENT CALIPER SHALL MATCH INCH FOR CALIPER INCH.

DUE TO THE ABOVE CONDITIONS, TOTAL TREES TO BE REMOVED: CALCULATED TOTAL COMBINED 112 CALIPER INCHES/ 2.5 CALIPER INCHES = 45 TREES

TOTAL ADDITIONAL TREES TO REPLACE EXISTING, MARKED AS "ONE-TO-ONE REPLACEMENT" = 4 TREES (3 AT VOLLEYBALL COURT AREA + 1 IN TENNIS COURT AREA)

TOTAL TREES REQUIRED FOR REPLACEMENT: 45 + 4 = 49

CRITICAL ROOT ZONE (CRZ)
1 FOOT FOR EVERY INCH OF DIAMETER BREAST HEIGHT (DBH) OVER 6 INCH CALIPER TREE



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion

4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SO/ID
Scale As Noted

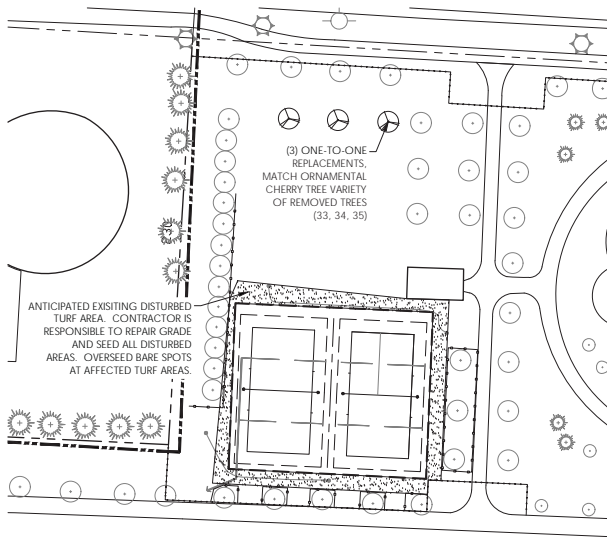
Revisions

Sheet Title

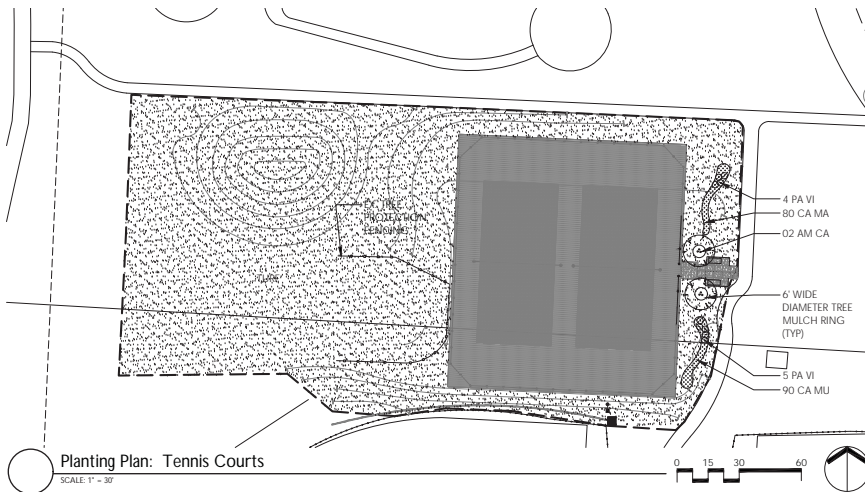
TREE PROTECTION & REMOVAL PLAN

Sheet #

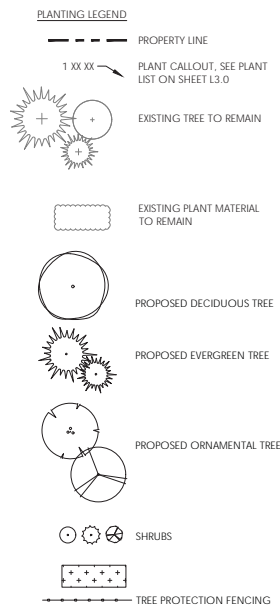
L4.1



Planting Plan: Sand Volleyball Courts
SCALE: 1" = 30'



Planting Plan: Tennis Courts
SCALE: 1" = 30'



PLANT INSTALLATION NOTES (REFER TO SPECIFICATIONS)

- CONTRACTOR SHALL VERIFY WITH THE OWNER AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO STARTING WORK. CALL THE OHIO UTILITIES PROTECTION SERVICE AT (800) 362-2764. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LANDSCAPE INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
- PLANT MATERIAL SHALL BE FURNISHED IN THE QUANTITIES AND/OR SPACING AS SHOWN OR NOTED. IN CASE OF DISCREPANCY BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.
- CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF ALL SITE ELEMENTS AND IMMEDIATELY INFORM THE OWNER AND DESIGN CONSULTANT OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS. NO WORK SHALL BE DONE IN ANY AREA WHERE THERE IS A DISCREPANCY WITHOUT OWNER'S APPROVAL.
- CONTACT THE OWNER TO REQUEST ELECTRONIC FILES FOR LAYOUT AND STAKING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADING IN THE PROJECT REQUIRED TO PROVIDE A PROPER SOD AND PLANTING BED.
- CONTRACTOR SHALL PROVIDE THE FOLLOWING SOIL AMENDMENTS:
SOIL AMENDMENT:
'COM-TIL' ORGANIC COMPOST (OR EQUAL)
7000 STATE ROUTE 104
SOUTH LOCKBOURNE, OHIO 43137
(614) 645-3152
- PERENNIAL BED AREAS:
SPREAD 3" OF 'COM-TIL' OVER NEW LANDSCAPE AREAS AND INCORPORATE INTO THE TOP 8" OF THE SOIL BY MECHANICAL TILLER.
- TREES AND SHRUBS:
MIX 30% 'COM-TIL' TO 70% EXISTING SOIL FROM PLANT PIT EXCAVATION. IF EXCAVATED SOIL IS NOT SUITABLE, SUPPLEMENT WITH IMPORTED TOPSOIL.
- TURF: SEE SPECIFICATIONS FOR TURF MIX AND SOIL PROFILE FOR EVENT TURF. NO SUBSTITUTIONS.
- ALL PLANT MATERIAL TO MEET OR EXCEED AMERICAN STANDARD FOR NURSERY STOCK, 1986 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSEYMEN.
- ALL PLANT MATERIALS SUBJECT TO INSPECTION PRIOR, DURING AND AFTER INSTALLATION. ANY PLANT NOT MEETING THE REQUIREMENTS WILL BE CAUSE FOR REJECTION BY THE OWNER. ALL REJECTED PLANTS SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF BY THE CONTRACTOR AND THE REPLACEMENT MATERIAL SHALL BE PROVIDED.
- BED LINE TO BE 18" FROM BASE OF PLANT MATERIAL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- ALL SHRUB AND BED AREAS TO BE MULCHED WITH TWO INCHES (2") DEPTH MINIMUM SHREDDED HARDWOOD MULCH. SUBMIT SAMPLE TO OWNER FOR APPROVAL.
- ALL AREAS OUTSIDE OF PLANTING BEDS SHALL BE SODDED AS SHOWN AND NOTED.
- FINISHED TURF (SOD) TO BE FLUSH WITH TOP OF ADJACENT CURB OR WALK. COORDINATE WITH OWNER IN FIELD AS REQUIRED.
- THE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS AND GROUND COVERS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. REPLACE MATERIAL WITHIN SEVEN (7) DAYS OF NOTIFICATION OF THE OWNER.
- PERFORM CLEANING DURING INSTALLATION OF LANDSCAPE WORK AND UPON COMPLETION. REMOVE FROM SITE ALL EXCESS LANDSCAPE RELATED MATERIAL, SOIL DEBRIS AND EQUIPMENT. REPAIR DAMAGE RESULTING FROM LANDSCAPING OPERATIONS. SWEEP AND HOSE DOWN PAVED SURFACES AFFECTED BY LANDSCAPING OPERATIONS. COORDINATE WITH OWNER AND OTHER CONTRACTORS FOR FINAL CLEANUP PRIOR TO CLEANING.

PLANT LIST

	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COND.	SPACING
TREES						
	AM CA	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	8'-10' HT.	B&B	As Shown
PERENNIALS, GROUNDCOVERS, & ORNAMENTAL GRASSES						
	CA MA	Carex Muskingumensis	Palm Sedge	#1	Cont.	1.5' O.C.
	PA VI	Panicum 'Northwind'	Northwind Switchgrass	#2	Cont.	3'-0' O.C.



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion

4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SO/ID
Scale As Noted

Revisions

Sheet Title

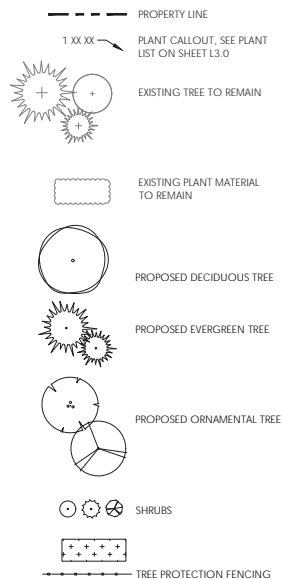
PLANTING PLAN

Sheet #

L4.2



PLANTING LEGEND



PLANT INSTALLATION NOTES (REFER TO SPECIFICATIONS)

- CONTRACTOR SHALL VERIFY WITH THE OWNER AND UTILITY COMPANIES THE LOCATIONS OF THE EXISTING UTILITIES PRIOR TO STARTING WORK. CALL THE OHIO UTILITIES PROTECTION SERVICE AT (800) 362-2764. CONTRACTOR TO REPAIR ALL DAMAGES TO EXISTING UTILITIES, CURBS, PAVEMENTS, ETC. RESULTING FROM LANDSCAPE INSTALLATIONS WHICH OCCUR DURING THE CONSTRUCTION OF THE PROJECT.
- PLANT MATERIAL SHALL BE FURNISHED IN THE QUANTITIES AND/OR SPACING AS SHOWN OR NOTED. IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.
- CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF ALL SITE ELEMENTS AND IMMEDIATELY INFORM THE OWNER AND DESIGN CONSULTANT OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS. NO WORK SHALL BE DONE IN ANY AREA WHERE THERE IS A DISCREPANCY WITHOUT OWNERS APPROVAL.
- CONTACT THE OWNER TO REQUEST ELECTRONIC FILES FOR LAYOUT AND STAKING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADING IN THE PROJECT REQUIRED TO PROVIDE A PROPER SOD AND PLANTING BED.
- CONTRACTOR SHALL PROVIDE THE FOLLOWING SOIL AMENDMENTS:
SOIL AMENDMENT:
'COM-TIL' ORGANIC COMPOST (OR EQUAL)
7000 STATE ROUTE 104
SOUTH LOCKBOURNE, OHIO 43137
(614) 645-3152

PERENNIAL BED AREAS:
SPREAD 3" OF 'COM-TIL' OVER NEW LANDSCAPE AREAS AND INCORPORATE INTO THE TOP 8" OF THE SOIL BY MECHANICAL TILLER.

TREES AND SHRUBS:
MIX 30% 'COM-TIL' TO 70% EXISTING SOIL FROM PLANT PIT EXCAVATION. IF EXCAVATED SOIL IS NOT SUITABLE, SUPPLEMENT WITH IMPORTED TOPSOIL.

TURF: SEE SPECIFICATIONS FOR TURF MIX AND SOIL PROFILE FOR EVENT TURF. NO SUBSTITUTIONS.
- ALL PLANT MATERIAL TO MEET OR EXCEED AMERICAN STANDARD FOR NURSERY STOCK, 1986 EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSEYMEN.
- ALL PLANT MATERIALS SUBJECT TO INSPECTION PRIOR, DURING AND AFTER INSTALLATION. ANY PLANT NOT MEETING THE REQUIREMENTS WILL BE CAUSE FOR REJECTION BY THE OWNER. ALL REJECTED PLANTS SHALL BE IMMEDIATELY REMOVED AND DISPOSED OF BY THE CONTRACTOR AND THE REPLACEMENT MATERIAL SHALL BE PROVIDED.
- BED LINE TO BE 18" FROM BASE OF PLANT MATERIAL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- ALL SHRUB AND BED AREAS TO BE MULCHED WITH TWO INCHES (2") DEPTH MINIMUM SHREDDED HARDWOOD MULCH. SUBMIT SAMPLE TO OWNER FOR APPROVAL.
- ALL AREAS OUTSIDE OF PLANTING BEDS SHALL BE SODDED AS SHOWN AND NOTED.
- FINISHED TURF (SOD) TO BE FLUSH WITH TOP OF ADJACENT CURB OR WALK. COORDINATE WITH OWNER IN FIELD AS REQUIRED.
- THE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS AND GROUND COVERS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. REPLACE MATERIAL WITHIN SEVEN (7) DAYS OF NOTIFICATION OF THE OWNER.
- PERFORM CLEANING DURING INSTALLATION OF LANDSCAPE WORK AND UPON COMPLETION. REMOVE FROM SITE ALL EXCESS LANDSCAPE RELATED MATERIAL, SOIL DEBRIS AND EQUIPMENT. REPAIR DAMAGE RESULTING FROM LANDSCAPING OPERATIONS. SWEEP AND HOSE DOWN PAVED SURFACES AFFECTED BY LANDSCAPING OPERATIONS. COORDINATE WITH OWNER AND OTHER CONTRACTORS FOR FINAL CLEANUP PRIOR TO CLEANING.

PLANT LIST

	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COND.	SPACING
TREES						
	AC	Acer rubrum 'Brandywine'	Brandywine Red Maple	2.5" Cal	B&B	As Shown
	AM CA	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	Multi-stem- 2.5" Cal min. stock	B&B	As Shown
	GL TR	Gleditsia triacanthos f. inermis 'Skyline' SKYLINE	Skyline Honeylocust	2.5" Cal	B&B	As Shown
	QU RU	Quercus rubra	Red Oak	2.5" CAL	B&B	As Shown



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name

Emerald Fields Expansion
4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For

Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info

Project # 16038
Date 08/01/17
By SO/ID
Scale As Noted

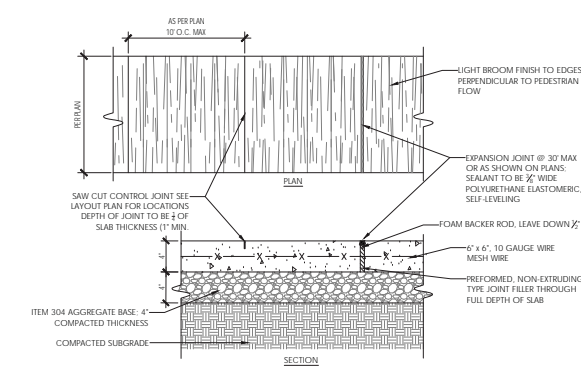
Revisions

Sheet Title

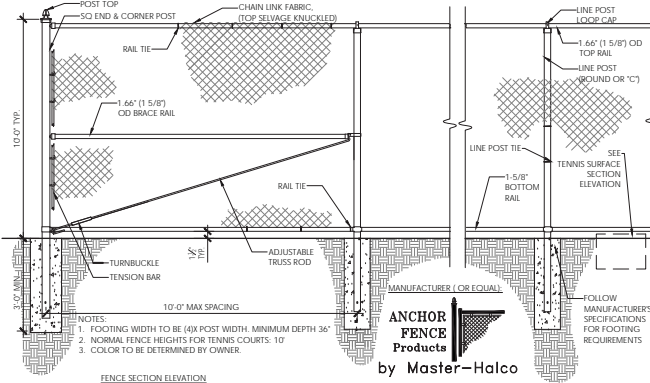
PLANTING PLAN

Sheet

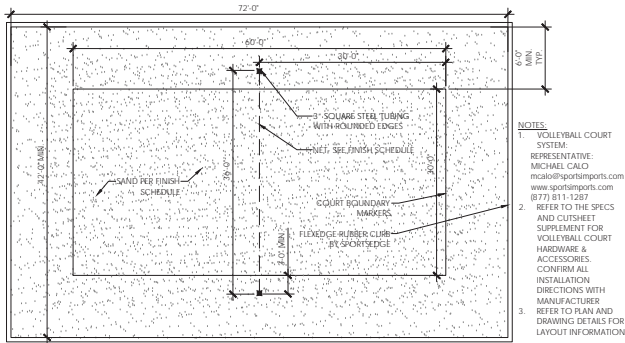
L4.3



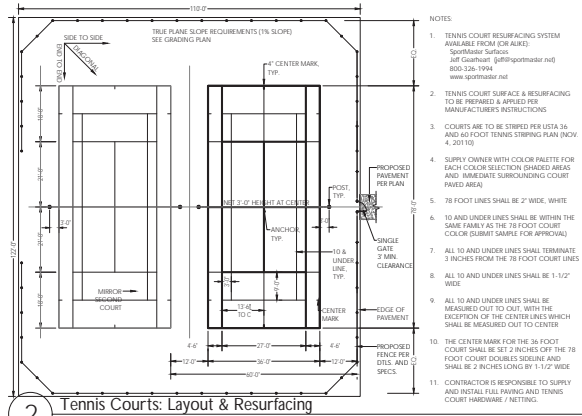
1 Standard Concrete Walk
1/2" = 1'-0"



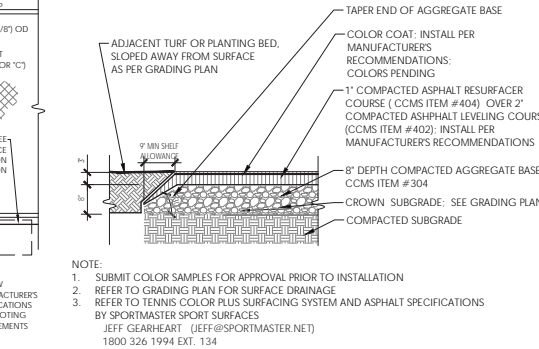
4 Tennis Court Fence 10' Ht.
1/2" = 1'-0"



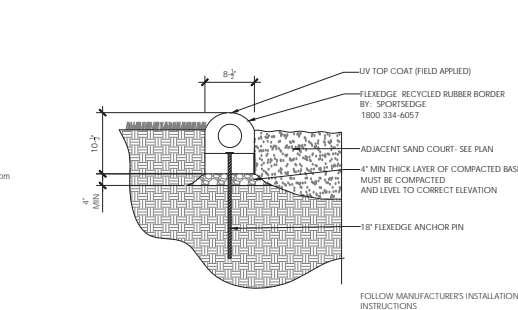
7 Sand Volleyball Court Plan
1" = 10'



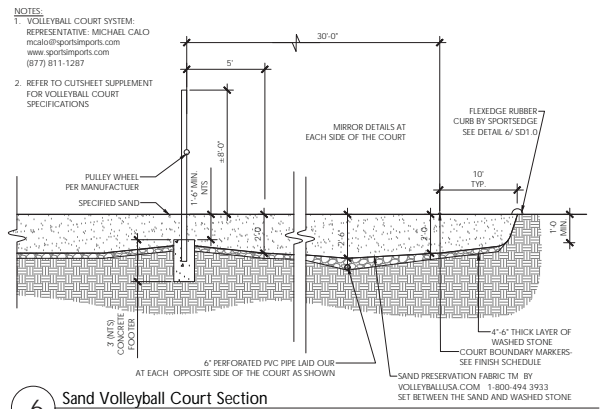
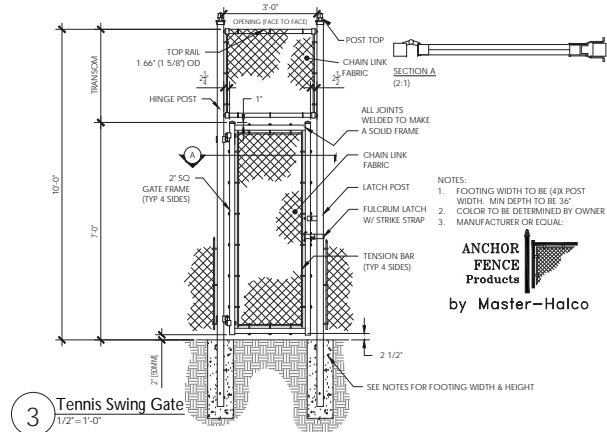
5 Tennis Surface Section Elevation
1" = 1'-0"



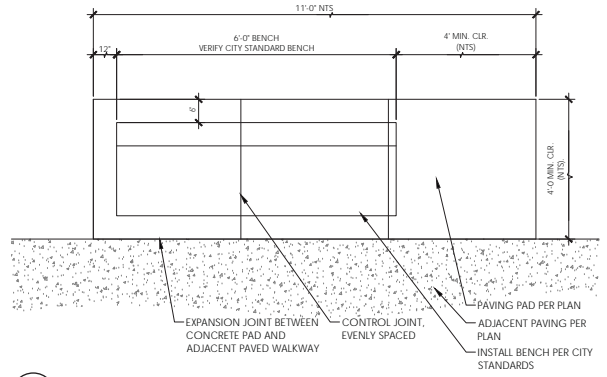
6 Sand Volleyball Court Section
1/4" = 1'-0"



8 Sand Volleyball Court FLEXEDGE® Curb
N.T.S.



9 Companion Seating Layout
3/4" = 1'-0"



9 Companion Seating Layout
3/4" = 1'-0"



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name
Emerald Fields Expansion
4040 Wyandotte Woods B
Dublin, Ohio 43017

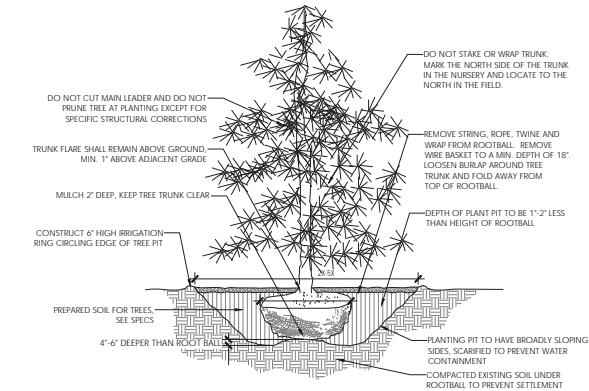
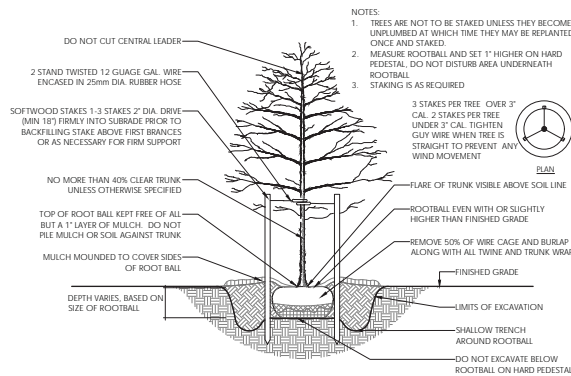
Prepared For
Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info
Project # 16038
Date 08/01/17
By SO/JD
Scale As Noted

Revisions

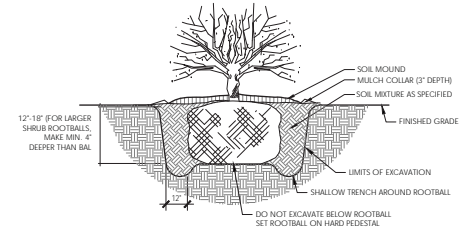
Sheet Title
Site Details

Sheet #
SD1.0



THE AMOUNT OF PRUNING SHALL BE LIMITED TO 1/3 OF THE BRANCHES TO COMPENSATE FOR LOSS OF ROOTS FROM TRANSPANTING. REMOVE DEAD AND INJURED LIMBS. REMOVE BURLAP AND WIRE OR TWINE FROM TOP AND SIDES OF BALL. CENTER SHRUB IN HOLE. SET TOP OF BALL 1'-3" ABOVE FINISH GRADE.

- NOTES:
1. DO NOT PRUNE SHRUBS DURING INSTALLATION
 2. MEASURE ROOTBALL AND SET 1" HIGHER ON HARD PEDESTAL. DO NOT DISTURB AREA UNDERNEATH ROOTBALL



1 Deciduous Tree Planting

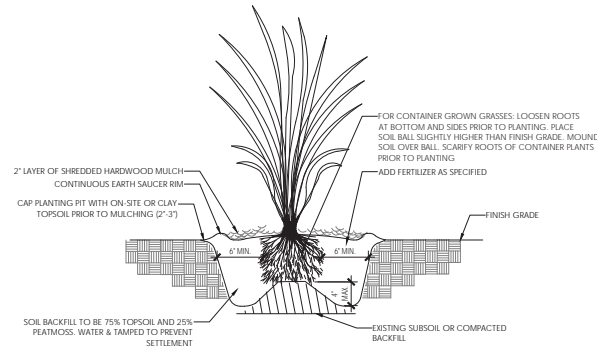
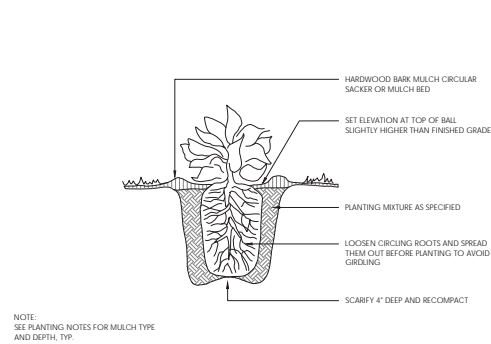
N.T.S.

2 Evergreen Tree Planting

1"=1'-0"

3 Shrub Planting

N.T.S.



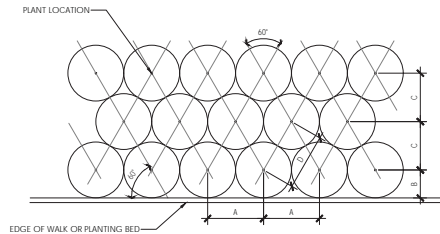
5 Ornamental Grass Planting

1 1/2"=1'-0"

6 Typical Plant Spacing

N.T.S.

SPACING	A	B	C	D	A=	B=	C=	D=
12"	12"	6"	10"	12"	SP/2	SP/2	SP/1.2	SPACING
18"	18"	9"	15"	18"				
24"	24"	10"	20"	24"				
36"	36"	18"	31"	36"				
48"	48"	21"	41"	48"				



4 Perennial Planting

N.T.S.



Columbus
100 Northwoods Blvd, Ste A
Columbus, Ohio 43235
p 614.255.3399

Cincinnati
10816 Millington Court, Ste 118
Cincinnati, Ohio 45242
p 614.360.3066

PODdesign.net

Project Name
Emerald Fields Expansion
4040 Wyandotte Woods B
Dublin, Ohio 43017

Prepared For
Mr. Matt Earman, Director
City of Dublin Parks & Recreation
6555 Shier Rings Road
Dublin, OH 43016

Project Info
Project # 16038
Date 08/01/17
By SO/ID
Scale As Noted

Revisions

Sheet Title
Planting Details

Sheet #

SD2.0



LIGHTING FIXTURE SCHEDULE					
MARK	DESCRIPTION	VOLT	LAMP	HEIGHT	MANUFACTURER
F1	(2) LED FIXTURES ON 40 POLE, 5100K, 75CRI	240	1150W LED	CONCRETE BASE	MUSCO TLC-LED 1150

-
- The site plan for the Music Box Theatre shows the building's footprint, parking lot, and surrounding areas. Key features include:
- Building Footprint:** The main building is labeled "Music Box Theatre" and includes a "MUSICO LIGHTING CONTROLLER" and "PANEL 'T' (NEW)" and "PANEL 'Y' (EXIST)".
 - Parking Lot:** The parking lot is located to the left of the building and includes a "PUSH BUTTON & SPOKE MOUNTED ON FENCE" and "ELECTRIC METER".
 - Surrounding Areas:** The plan shows "GRASS" areas, "concrete walk" paths, and "rubber surface" areas.
 - Other Features:** The plan includes labels for "T-24", "T-35", "T-45", "T-17", "T-18", "T-19", "T-20", "T-21", "T-22", "T-23", "T-24", "T-25", "T-26", "T-27", "T-28", "T-29", "T-30", "T-31", "T-32", "T-33", "T-34", "T-35", "T-36", "T-37", "T-38", "T-39", "T-40", "T-41", "T-42", "T-43", "T-44", "T-45", "T-46", "T-47", "T-48", "T-49", "T-50", "T-51", "T-52", "T-53", "T-54", "T-55", "T-56", "T-57", "T-58", "T-59", "T-60", "T-61", "T-62", "T-63", "T-64", "T-65", "T-66", "T-67", "T-68", "T-69", "T-70", "T-71", "T-72", "T-73", "T-74", "T-75", "T-76", "T-77", "T-78", "T-79", "T-80", "T-81", "T-82", "T-83", "T-84", "T-85", "T-86", "T-87", "T-88", "T-89", "T-90", "T-91", "T-92", "T-93", "T-94", "T-95", "T-96", "T-97", "T-98", "T-99", "T-100".



SCALE: 1" = 30'-0"



E-1



Control System Summary

Project Information

Project #:	186923
Project Name:	Emerald Park Tennis Courts
Date:	06/20/17
Project Engineer:	BTaylor
Sales Representative:	John Kaufman
Control System Type:	Control and Monitoring
Communication Type:	Digital Cellular
Scan:	186923A
Document ID:	186923P1V1-0620095851
Distribution Panel Location or ID:	E1
Total # of Distribution Panel Locations for Project:	1
Design Voltage/Hertz/Phase:	480/60/3
Control Voltage:	120

Project Specific Notes:

This service includes a pushbutton/strobe assembly kit

DESCRIPTION	APPROXIMATE SIZE
1. Control and Monitoring Cabinet	24 X 48

Equipment Listing

1. Control and Monitoring Cabinet	24 X 48
-----------------------------------	---------

Total Contactors 4 QTY 4 SIZE 30 AMP

Total Off/On/Auto Switches: 1

Confirm all Details - voltage, # of distribution panels, etc.

Materials Checklist

Contractor/Customer Supplied:

- ☐ A single control circuit must be supplied per distribution panel location.
 - If the control voltage is NOT available, a control transformer is required.
- ☐ Electrical distribution panel to provide overcurrent protection for circuits
 - Thermal/Magnetic circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- ☐ Wiring:
 - Dedicated control power circuit
 - Power circuit to and from lighting contactors
 - Harnesses for cabinets at remote locations
 - Means of grounding, including lightning ground protection
- ☐ Electrical conduit wireway system
 - Entrance hubs rated NEMA 4: must be die-cast zinc, PVC, or copper-free die-cast aluminum
- ☐ Mounting hardware for cabinets
- ☐ Control circuit lock-on device to prevent unauthorized power interruption to control power
- ☐ Anti-corrosion compound to apply to ends of wire, if necessary

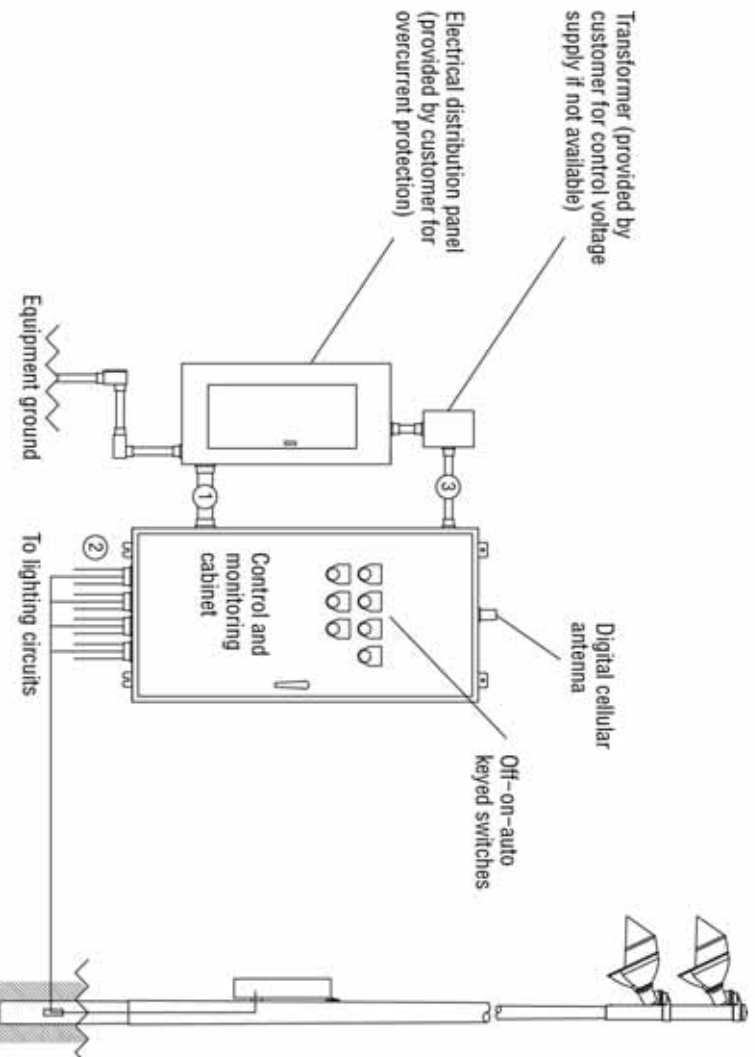
Call Control-Link Central™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation. Note: Activation may take up to 1 1/2 hours

IMPORTANT NOTES

- Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's ballast enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
- In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
- One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are UL 100% rated for the published continuous load. All contactors are 3 pole.
- If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
- A single control circuit must be supplied per control system.
- Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements

Control-Link® Control and Monitoring System



Wire	Description	# of Wires	Typ. Wire Size (AWG)	Max. Wire Length (FT)	Wire from Musco	Notes
1	Line power to contactors, and equipment grounding conductor	Note A	Note B	27	No	A - E
2	Load power to lighting circuits	Note A	Note B	N/A	No	A - D
3	Control power (dedicated, 20A)	3	12	N/A	No	C, D

Notes:

- A. Voltage and phasing per the notes on cover page.
- B. Calculate per load and voltage drop.
- C. All conduit diameters should be per code.
- D. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.
- E. Contact Musco if maximum wire length from circuit breaker to contactor exceeds value in chart.

IMPORTANT: Control (3) wires must be in separate conduit from line and load power wiring (1, 2).

R60-32-00_C



Control System Summary

Emerald Park Tennis Courts / 186923 - 186923A
E1 - Page 3 of 4

SWITCHING SCHEDULE

Field/Zone Description	Zones
Tennis-1	1

CONTROL POWER CONSUMPTION	
120V Single Phase	
V/A loading of Musco Supplied Equipment	INRUSH: 1568.0 SEALED: 194.8

CIRCUIT SUMMARY BY ZONE							
POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
T1	Tennis-1	2	2	5.3	30	C1	1
T2	Tennis-1	2	2	5.3	30	C2	1
T3	Tennis-1	2	2	5.3	30	C3	1
T4	Tennis-1	2	2	5.3	30	C4	1

*Full Load Amps based on amps per driver.



Control System Summary

Emerald Park Tennis Courts / 186923 - 186923A
E1 - Page 4 of 4

PANEL SUMMARY						
CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole T1	5.25		
1	1	C2	Pole T2	5.25		
1	1	C3	Pole T3	5.25		
1	1	C4	Pole T4	5.25		

ZONE SCHEDULE				
			CIRCUIT DESCRIPTION	
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	POLE ID	CONTACTOR ID
Zone 1	1	Tennis-1	T1 T2 T3 T4	C1 C2 C3 C4

Emerald Park Tennis Courts

Dublin, OH

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Group
T1-T4	40'	40'	2	TLC-LED-1150	2.30 kW	A
4			8		9.20 kW	

Group Summary			
Group	Description	Load	Fixture Qty
A	Tennis	9.2 kW	8

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1150	LED 5700K - 75 CRI	1150W	121,000	>51,000	>51,000	>51,000	8

Light Level Summary

Calculation Grid Summary							
Grid Name	Calculation Metric	Illumination				Groups	Fixture Qty
		Ave	Min	Max	Max/Min		
Tennis-1 Spill	Horizontal Illuminance	0	0	0	0.00	A	8
Tennis-1 Spill	Max Candela Metric	42.3	0	337	0.00	A	8
Tennis-1 Spill	Max Vertical Illuminance Metric	0	0	0.01	0.00	A	8
Tennis-1	Horizontal Illuminance	57.9	53	63	1.20	A	8

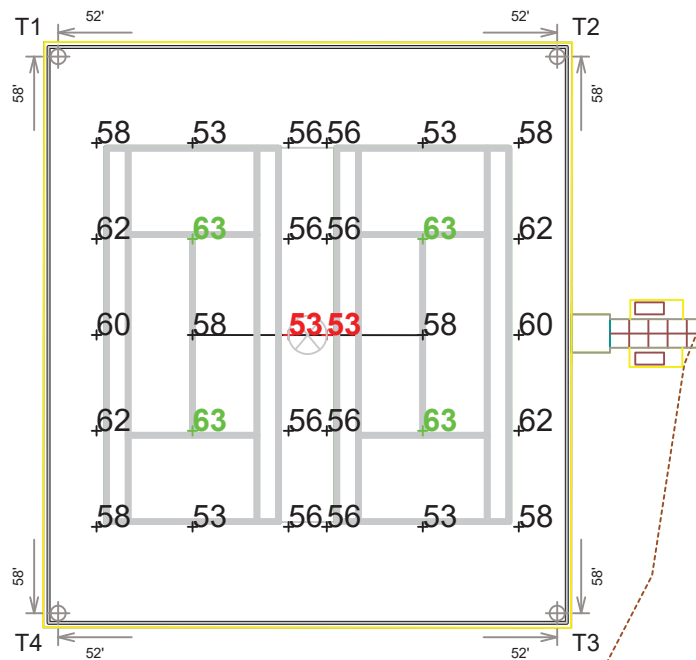
From Hometown to Professional



We Make It Happen.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	T1-T4	40'	-	40'	TLC-LED-1150	2	2	0
4	TOTALS					8	8	0



SCALE IN FEET 1 : 40



ENGINEERED DESIGN By: B.Taylor • File #186923A • 20-Jun-17

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

Emerald Park Tennis Courts

Dublin,OH

GRID SUMMARY

Name: Tennis-1
Size: 2 Court - 12' Spacing
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid
Guaranteed Average: 50
 Scan Average: 57.85
 Maximum: 63
 Minimum: 53
 Avg / Min: 1.10
Guaranteed Max / Min: 2
 Max / Min: 1.20
 UG (adjacent pts): 0.00
 CU: 0.87
 No. of Points: 30

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 lumens
No. of Luminaires: 8
Total Load: 9.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

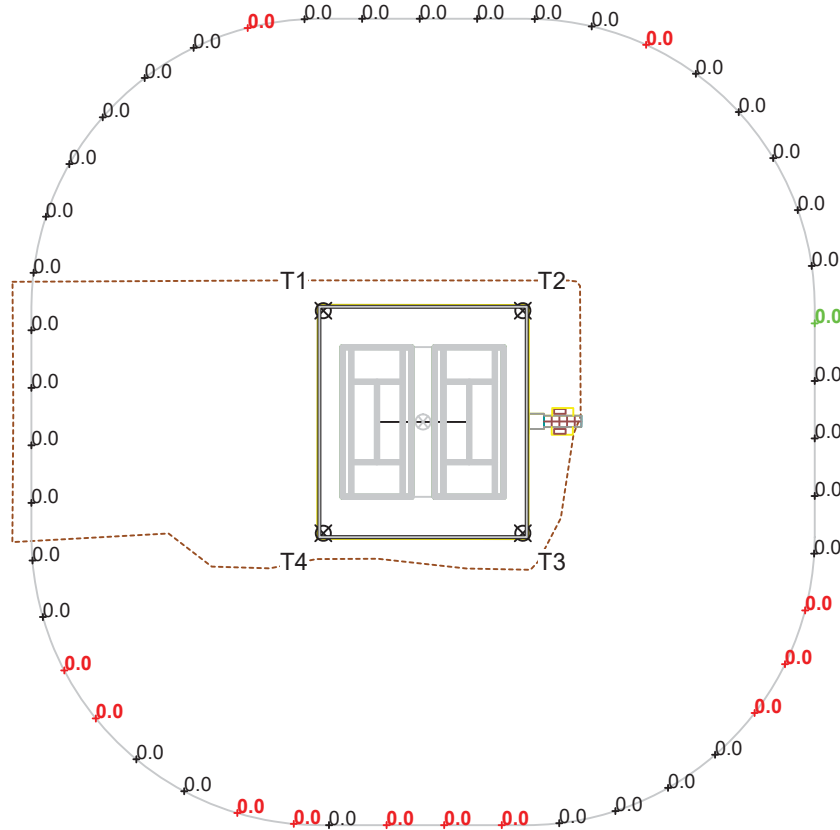


Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	T1-T4	40'	-	40'	TLC-LED-1150	2	2	0
4	TOTALS					8	8	0



SCALE IN FEET 1 : 100



ENGINEERED DESIGN By: B.Taylor • File #186923A • 20-Jun-17

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

Emerald Park Tennis Courts

Dublin,OH

GRID SUMMARY

Name: Tennis-1 Spill
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid
Scan Average: 0.0001
Maximum: 0.00
Minimum: 0.00
No. of Points: 47

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 lumens
No. of Luminaires: 8
Total Load: 9.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



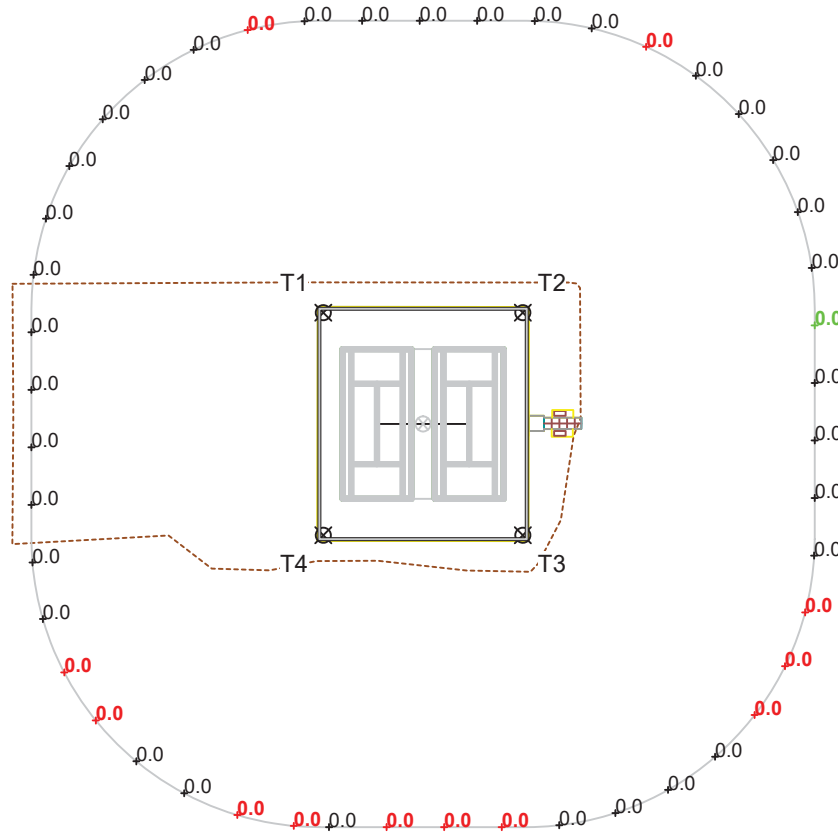
We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	T1-T4	40'	-	40'	TLC-LED-1150	2	2	0
4	TOTALS					8	8	0



SCALE IN FEET 1 : 100



ENGINEERED DESIGN By: B.Taylor • File #186923A • 20-Jun-17

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

Emerald Park Tennis Courts

Dublin,OH

GRID SUMMARY

Name: Tennis-1 Spill
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED MAX VERTICAL FOOTCANDLES

Entire Grid
Scan Average: 0.0006
Maximum: 0.01
Minimum: 0.00
No. of Points: 47

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 lumens
No. of Luminaires: 8
Total Load: 9.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

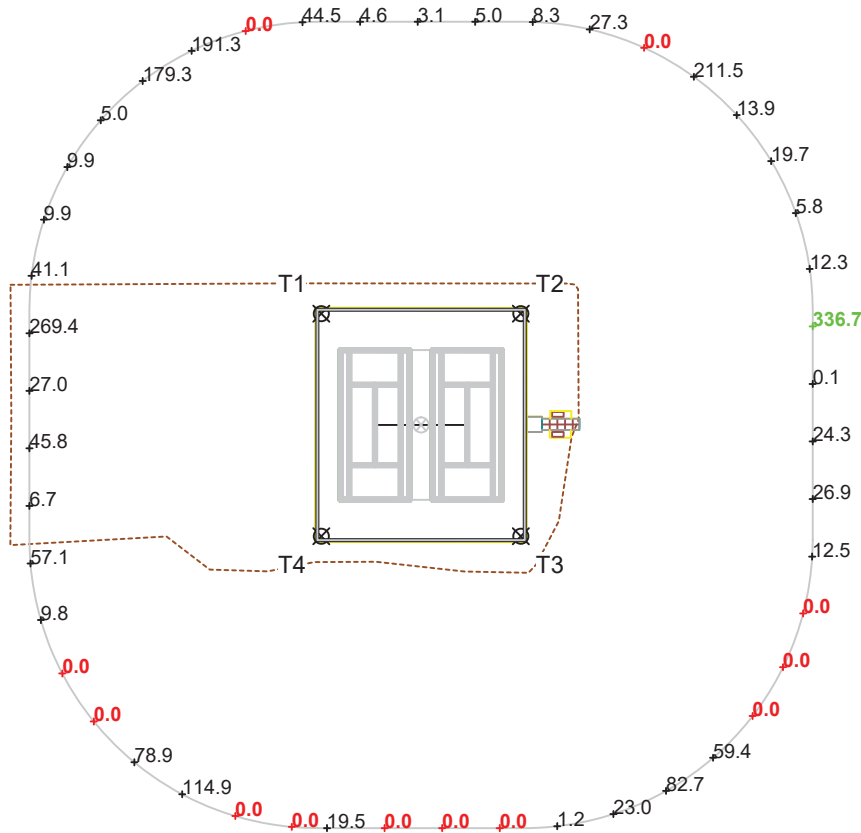


Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
4	T1-T4	40'	-	40'	TLC-LED-1150	2	2	0
4	TOTALS					8	8	0



Emerald Park Tennis Courts

Dublin,OH

GRID SUMMARY

Name: Tennis-1 Spill
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED CANDELA (PER FIXTURE)

Entire Grid
Scan Average: 42.3106
Maximum: 336.66
Minimum: 0.00
No. of Points: 47

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 lumens
No. of Luminaires: 8
Total Load: 9.2 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY



SCALE IN FEET 1 : 100



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

Emerald Park Tennis Courts

Dublin, OH

EQUIPMENT LAYOUT

INCLUDES:

· Tennis-1

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

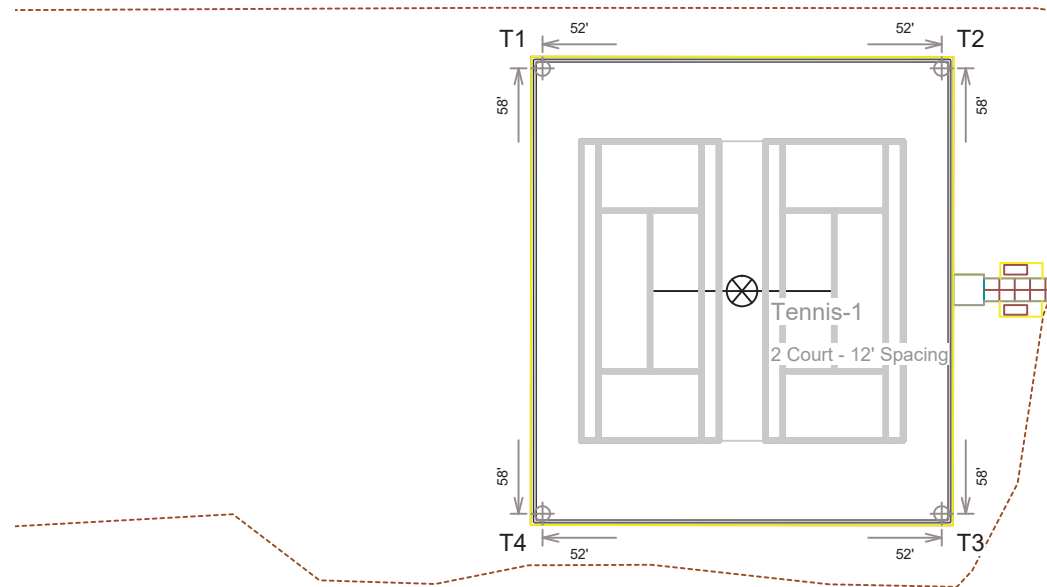
Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
4	T1-T4	40'	-	40'	TLC-LED-1150	2
4	TOTALS					8

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1150	7.0	6.6	6.1	5.2	4.2	3.8	3.0



SCALE IN FEET 1 : 50



Pole location(s) dimensions are relative to 0,0 reference point(s)

ENGINEERED DESIGN By: B.Taylor • File #186923A • 20-Jun-17



Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 Musco Sports Lighting, LLC.

EQUIPMENT LAYOUT

Emerald Park Tennis Courts
Dublin, OH

GLARE IMPACT

Summary

Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

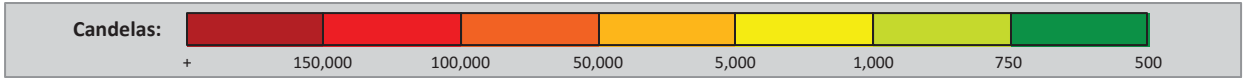
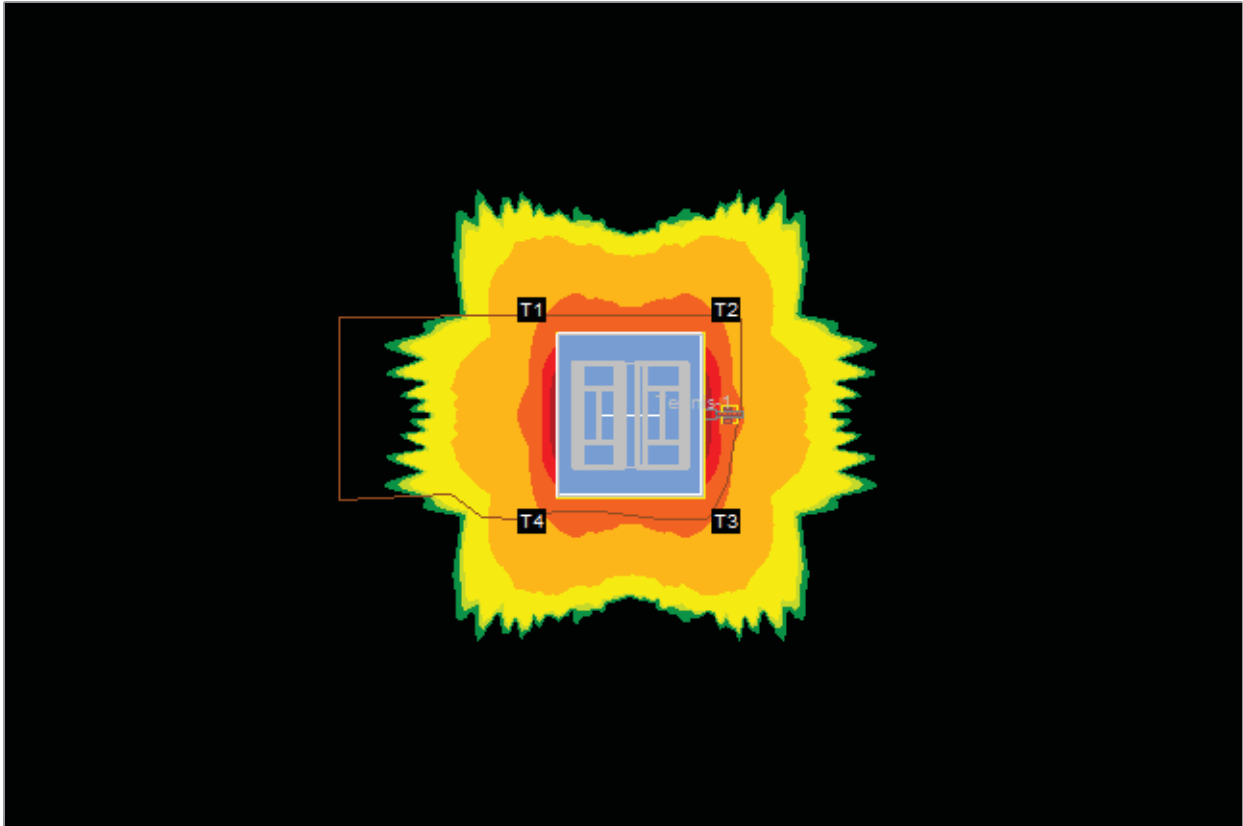
GLARE

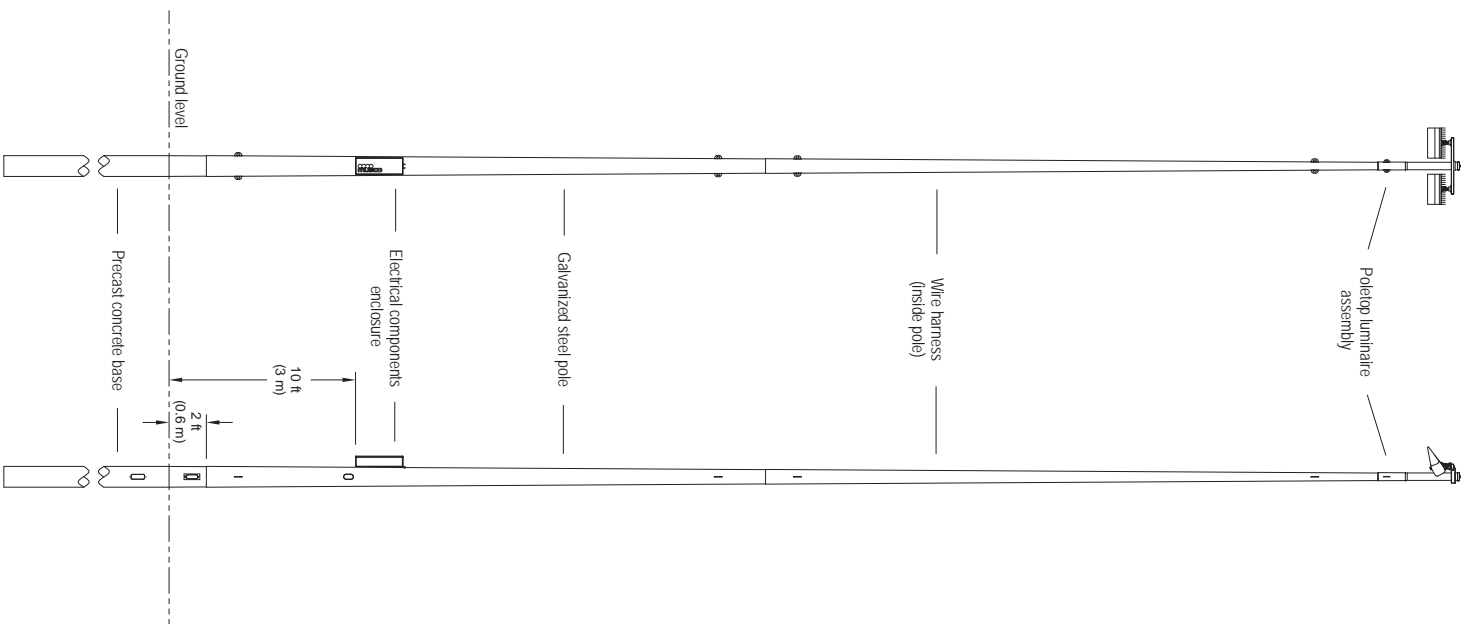
Candela Levels

High Glare: 150,000 or more candela
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

Significant Glare: 25,000 to 75,000 candela
Equivalent to high beam headlights of a car.

Minimal to No Glare: 500 or less candela
Equivalent to 100W incandescent light bulb.





Light-Structure System™ typical configuration
TLC-LED-1150 Luminaires

PRELIMINARY

CONFIGURATION:	02
DRAWN BY:	RWS
APPROVED BY:	TDM
SCALE:	Not to scale
DATE:	08/25/16
DRAWING NUMBER:	M-2151-e-h04-1.02



CORPORATE OFFICE:
P.O. Box 808
1700 West Highway 100
Olathe, Kansas 66061
+1-800-825-6020
+1-641-673-0411