

PROJECT TEAM :

The Country Club at Muirfield Village - Jerry McKenna (Owner's Rep)
Email: jmckenna@columbus.rr.com, 614.357.3405

Design Collective - Brent LaCount (Architectural Firm)
Email: blacount@dcollective.com

Verdantas - Eric Koch (Civil Engineering Firm)
Email: ekoch@verdantas.com

Environmental Management Inc. - Cam Ely (Landscaping Designer)
Email: cely@landscapepros.com



THE COUNTRY CLUB
MUIRFIELD VILLAGE

The West Veranda

PROJECT NARRATIVE:

With more than 40 years of tradition, The Country Club at Muirfield Village takes pride in the exceptional services and amenities that they provide to their membership. TCCMV, located at 8715 Muirfield Drive Dublin, OH 43017 is excited to expand their offering even further by providing to the community a new 2,320 SF West Patio Veranda addition.

The West Veranda project will expand on the clubs family-friendly atmosphere and features two indoor/outdoor patios named Veranda A & Veranda B as well as a Covered Porch. TCCMV invites their guests to take advantage of their beautiful golf course views while also providing an indoor/outdoor elevated dining experience to the TCCMV members, wedding/event guests, and the Dublin community!

This Veranda design provides an integrated look between the proposed addition and the existing exterior patio bar structure which continues to be seen in the exterior design of the covered porch canopy. It features a standing seam metal roof with dark stained columns, hardie plank siding, multiple folding glass operable walls for maximum flexibility to open up the space, an exposed structure covered porch, patio string lights, decorative fans, and invites guest to stay awhile on their new outdoor covered patio.

We look forward to your feedback on the exciting project!



EXISTING CONDITIONS



EXISTING OPEN GRASS AREA



OUTDOOR COVERED BAR



EXISTING BUILDING EXTERIOR



GOLF COURSE ENTRY & PERGOLA

OCCUPANCY ANALYSIS

EXISTING POSTED OCCUPANCY (FIRST FLOOR):

Jones Room:	61
Sarazen Room:	61
Nicklaus Room:	86
Muirfield Village:	20
Golden Bear:	33
Concierge:	01
Storage:	01
Founders Room:	71
Founders Bar:	01
Kitchen 1:	01
Pro Shop:	29
Pro Shop Office:	07
Kitchen 2:	10
Kitchen Office:	04
Kitchen Storage:	01
Total (Interior):	387 Occupants
Total (Exterior):	368 Occupants
Total:	755 Occupants

WEST PATIO ADDITION OCCUPANCY:

Veranda A:	54
Veranda B:	54
Total:	108 Occupants

TOTAL OCCUPANTS:

Existing:	755
Addition:	108
Total:	863 Occupants

PLUMBING COUNTS

REQUIRED:	1,820/ 2 = 910 per sex
Men:	WC - 910 @ 1 per 65 = 14 LAV - 910 @ 1 per 200 = 4.55 or 5
Women:	WC - 910 @ 1 per 125 = 7.28 or 8 LAV - 910 @ 1 per 200 = 4.55 or 5
ADA Unisex:	0 - not required
Service Sink:	1
Drinking Fountain:	1,820 @ 1 per 500 = 3.64 or 4

PROVIDED:	
Men:	WC - 14 (6 Urinals) LAV - 8
Women:	WC - 8 LAV - 7
Service Sink:	1
Drinking Fountain:	0 (Water to be provided directly to the customer)

- Urinals shall not be substituted for more than 67% of the total required WC in 'Assembly' use. RRs are compliant.
- Urinals shall not be substituted for more than 50% of the total required WC in 'Business' use. RRs are compliant.

SUMMARY OF RR COUNT REQUIREMENTS

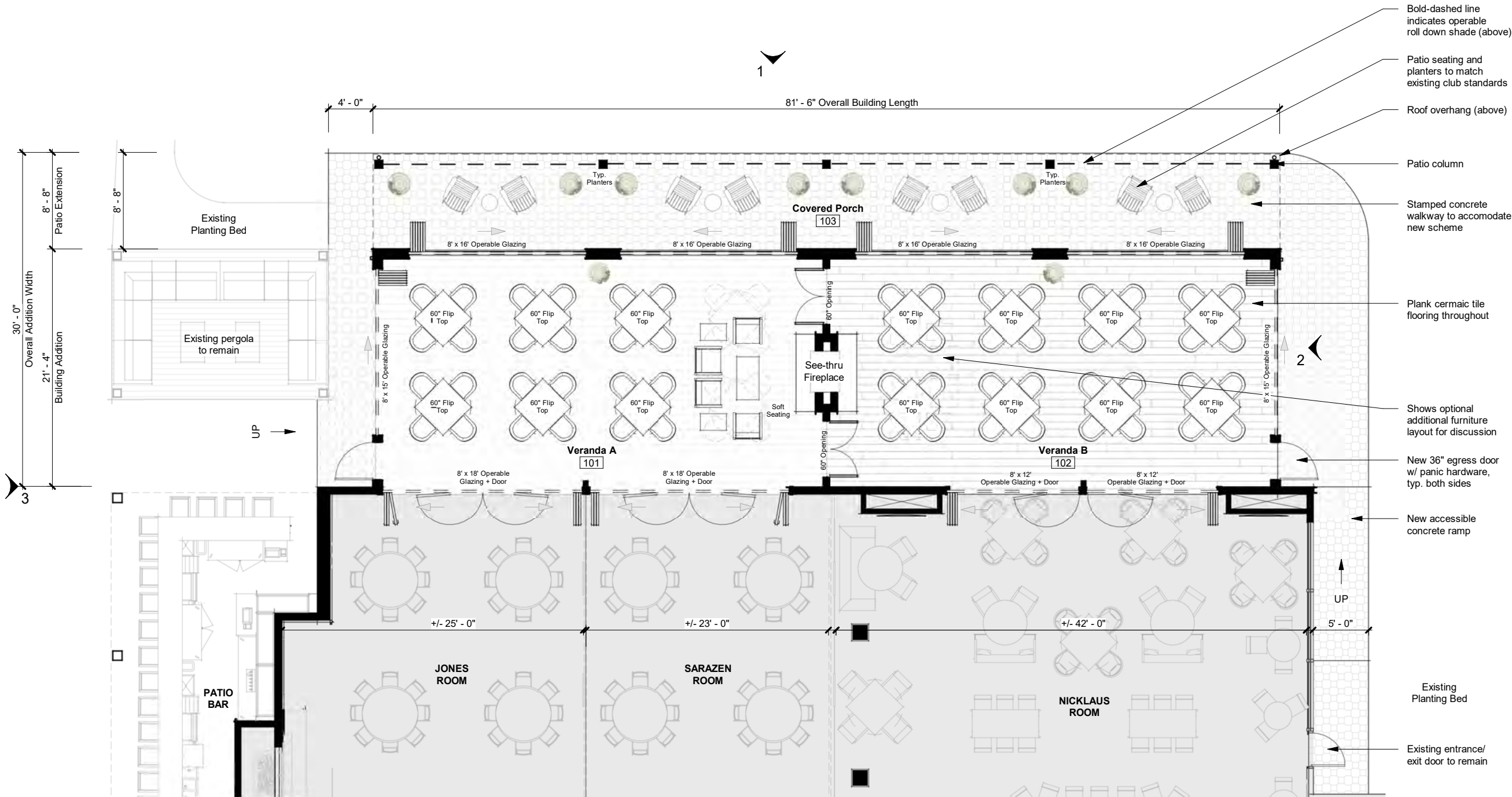
Based on the existing occupancy calculations and existing plumbing fixtures to remain. Additional restroom facilities are **NOT** required to accommodate the West Patio addition.

Per OBC 2902.3.1 Access

The route to the public toilet facilities required by Section 2902.3 shall not pass through kitchens, storage rooms or closets. Access to the required facilities shall be from within the building or from the exterior of the building. Routes shall comply with the accessibility requirements of this code. The public shall have access to the required toilet facilities at all times that the building is occupied. The building owner is permitted to control access to the toilet facilities. Where such access is controlled, a sign shall be posted indicating how access is to be obtained.

Per OBC 3411.6 Alterations:

A building, facility or element that is altered shall comply with the applicable provision in Chapter 11 of this code, unless technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent technically feasible.



- Bold-dashed line indicates operable roll down shade (above)
- Patio seating and planters to match existing club standards
- Roof overhang (above)
- Patio column
- Stamped concrete walkway to accommodate new scheme
- Plank ceramic tile flooring throughout
- Shows optional additional furniture layout for discussion
- New 36" egress door w/ panic hardware, typ. both sides
- New accessible concrete ramp
- Existing Planting Bed
- Existing entrance/exit door to remain

AREA ANALYSIS:

Interior:	
Veranda A:	810 SF
Veranda B:	810 SF
Covered Porch:	700 SF
Total Area:	2,320 SF

OCCUPANT ANALYSIS:

Veranda A:	810 SF / 15 = 54
Veranda B:	810 SF / 15 = 54
Total:	108 Occupants

EGRESS CALCULATIONS:
REQUIRED (Per Section 1005)

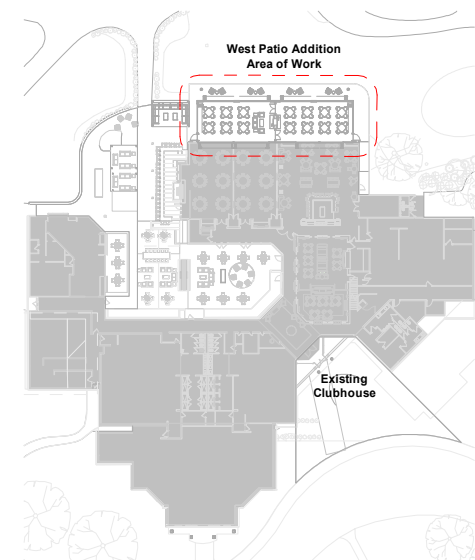
General - 0.2" x 108 Occupants = 21"

PROVIDED:

Total Width :	68"
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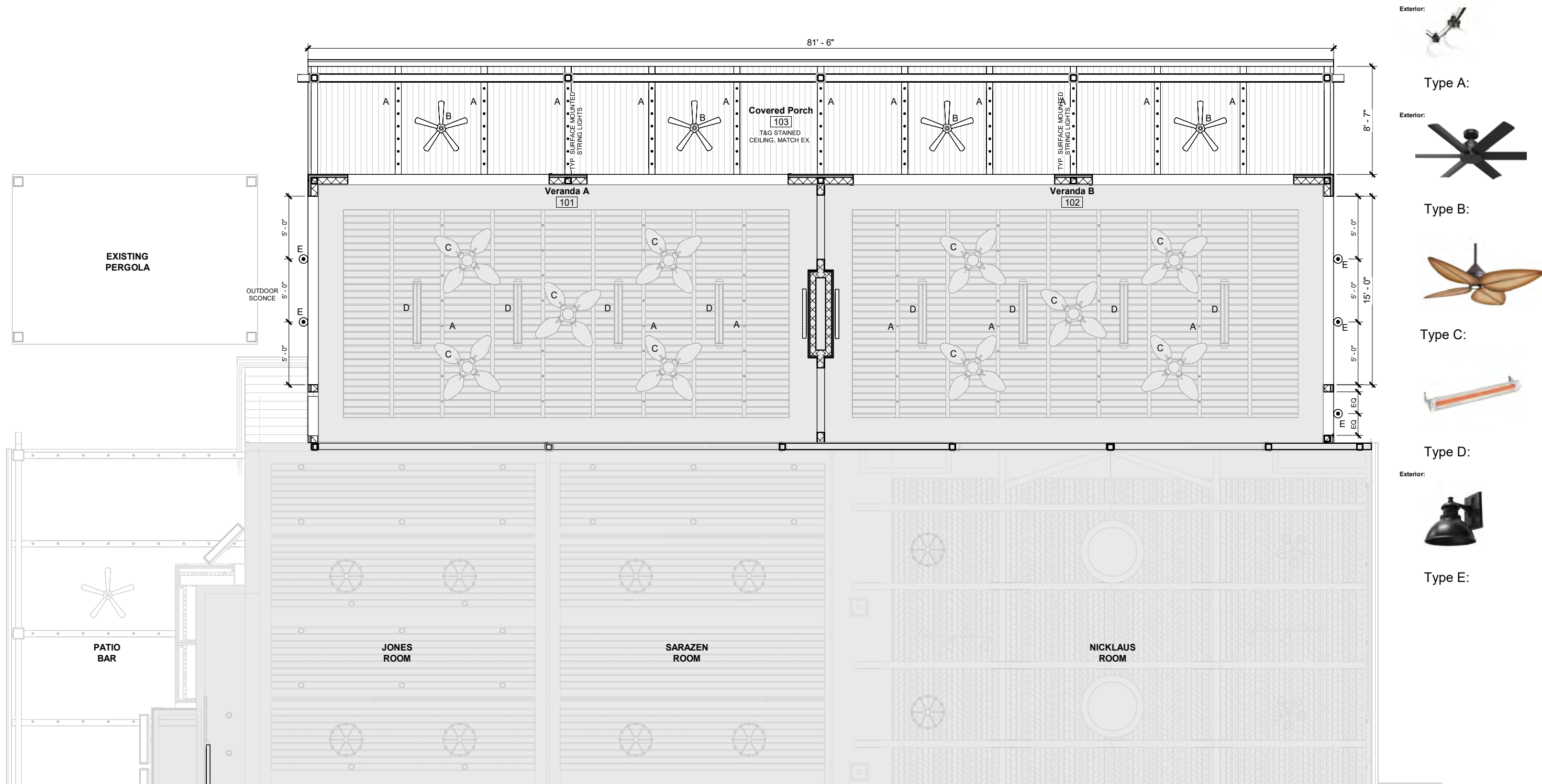
SEATING ANALYSIS:

Veranda A:	28
Veranda B:	32
Total Interior Seating:	60
Covered Porch:	08
Total Seating Capacity:	68



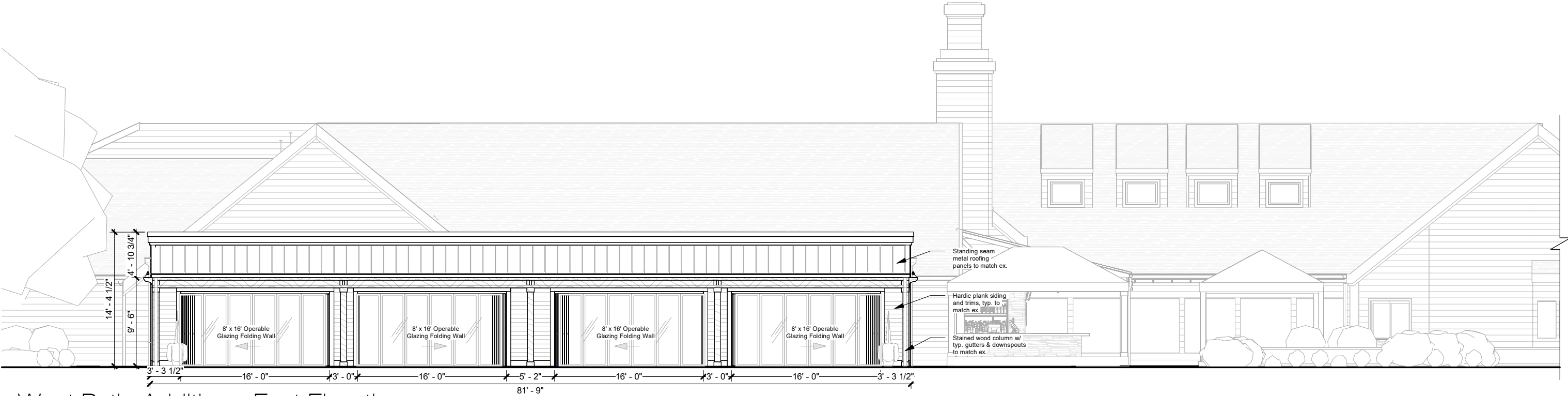
Schematic Plan - West Patio Addition

Scale: 1" = 10'-0"

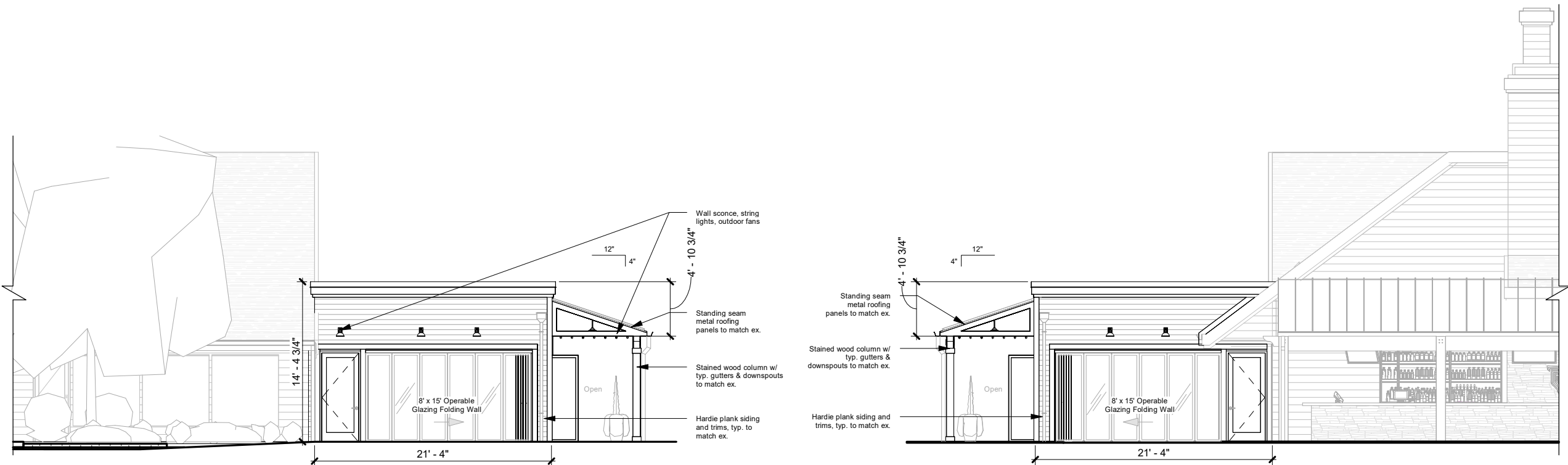


Reflected Ceiling Plan - West Patio Addition

Scale: 1/8" = 1'-0"



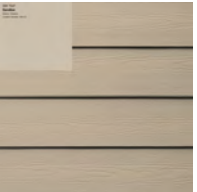

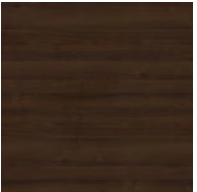
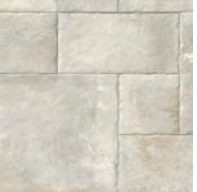




1 West Patio Addition - East Elevation
Scale: 3/32" = 1'-0"



2 West Patio Addition - South Elevation
Scale: 3/32" = 1'-0"

3 West Patio Addition - North Elevation
Scale: 3/32" = 1'-0"

Exterior:

	
Siding: Hardie Plank, SW7547 to Match Clubhouse Standard	Roof: Metal Standing Seam, Drk Bronze
	
Columns & Beams: Dark Stained	Concrete Flooring: Stamped and/or Broomed Finish
	
Interior Floor: Ceramic Plank Tile	Operable Glass Folding Wall: Dark Bronze Finish
	
Lighting: Ceiling Fans, Patio String Lights, Exterior Wall Sconces	



DOORS SHOWN IN OPEN POSITION



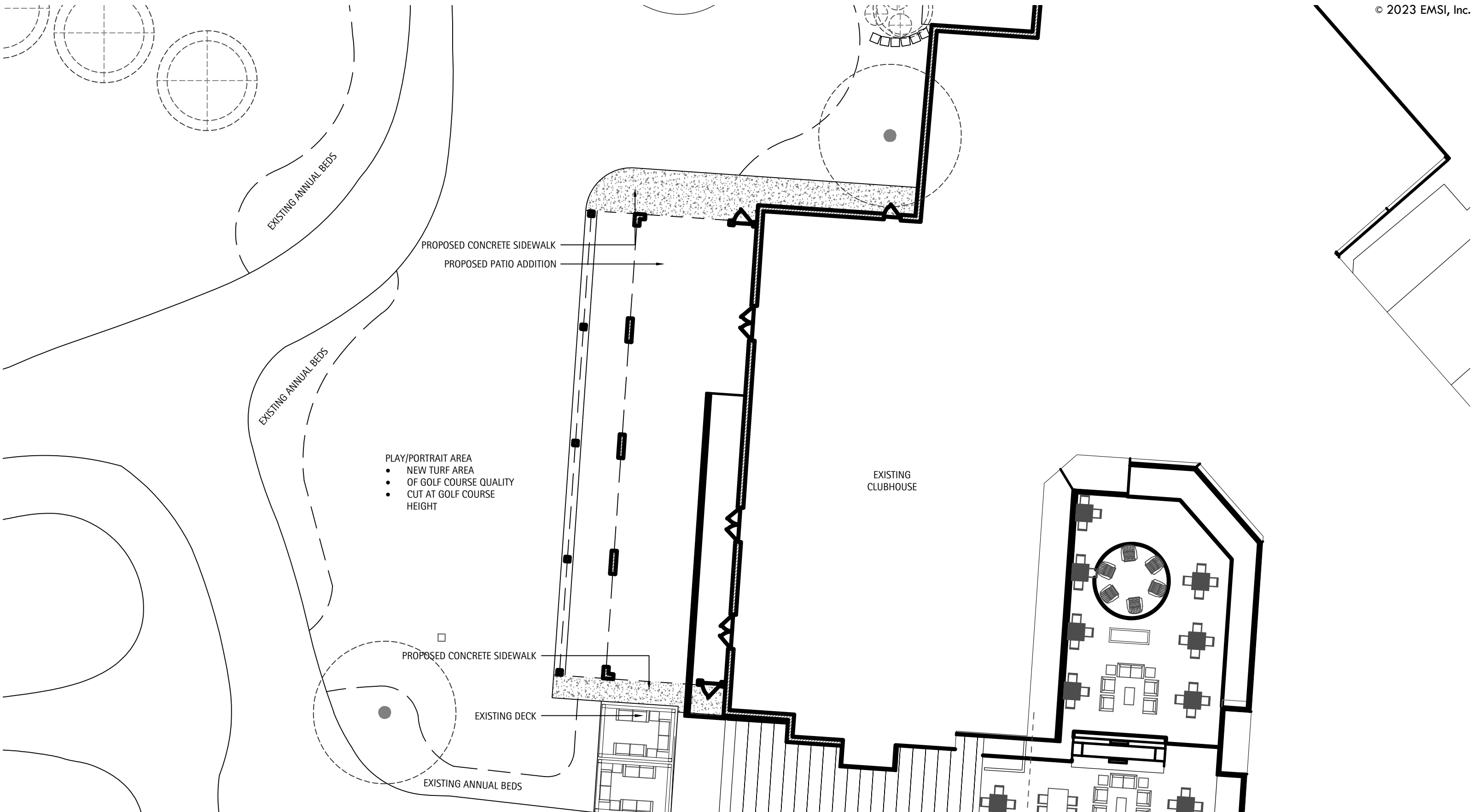


DOORS SHOWN IN CLOSED POSITION



DOORS IN CLOSED POSITION





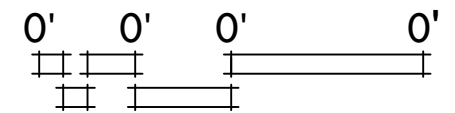
8715 Muirfield Drive

TCCMV Phase 4

Dublin, Ohio

Patio Renovation

March 30, 2023



NOT TO SCALE



NORTH

PRIVATE SITE IMPROVEMENT PLANS FOR: THE COUNTRY CLUB AT MURIFIELD VILLAGE MASTER PHASE PLAN IV - WEST VERANDA

FRANKLIN COUNTY, DUBLIN, OHIO
AUGUST 2023

OWNER:

THE COUNTRY CLUB AT MURIFIELD VILLAGE
8715 MURFIELD DRIVE
DUBLIN, OHIO 43017
PHONE: 614-764-1714

CONTRACTOR:

SHAFFER CONSTRUCTION
3675 TRABUE ROAD
COLUMBUS, OH 43228
PHONE: 614-402-2122

SURVEYOR NOTES:

THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED TO THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES.

DATE OF FIELD WORK: 06/20/2023
EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON.

SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.

BENCHMARKS:

AS PER THE TOPOGRAPHIC SURVEY PREPARED BY VERDANTAS, THE CONTRACTOR AND/OR HIS SURVEYOR SHALL BE RESPONSIBLE TO CROSS CHECK ALL CONTROL POINTS FOR DISTURBANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

CONTROL POINTS LISTED BELOW ARE SUITABLE FOR PROJECT BENCHMARKS.

CONTROL POINTS

BASIS OF BEARING: TRUE NORTH, BASED ON OBSERVATIONS, GPS DATA COLLECTED WITH TRIMBLE R8 UNIT VRS CORRECTION ON OHIO STATE PLANE SOUTH ZONE COORDINATE SYSTEM, NAD 1983, NAVD 1988, GEOID 12A.

POINT #	NORTHING	EASTING	ELEVATION
100	780701.0490	1784998.1330	967.02
101	780514.3300	1785121.3080	963.65
536870913	780737.9010	1785121.3080	960.10

FLOODZONE INFORMATION

THE SITE IS LOCATED IN ZONE X BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY ON FLOOD INSURANCE RATE MAP, MAP NO. 39049C0019K, WITH AN EFFECTIVE DATE OF JUNE 17, 2008 IN FRANKLIN COUNTY, OHIO.

STORM WATER MANAGEMENT

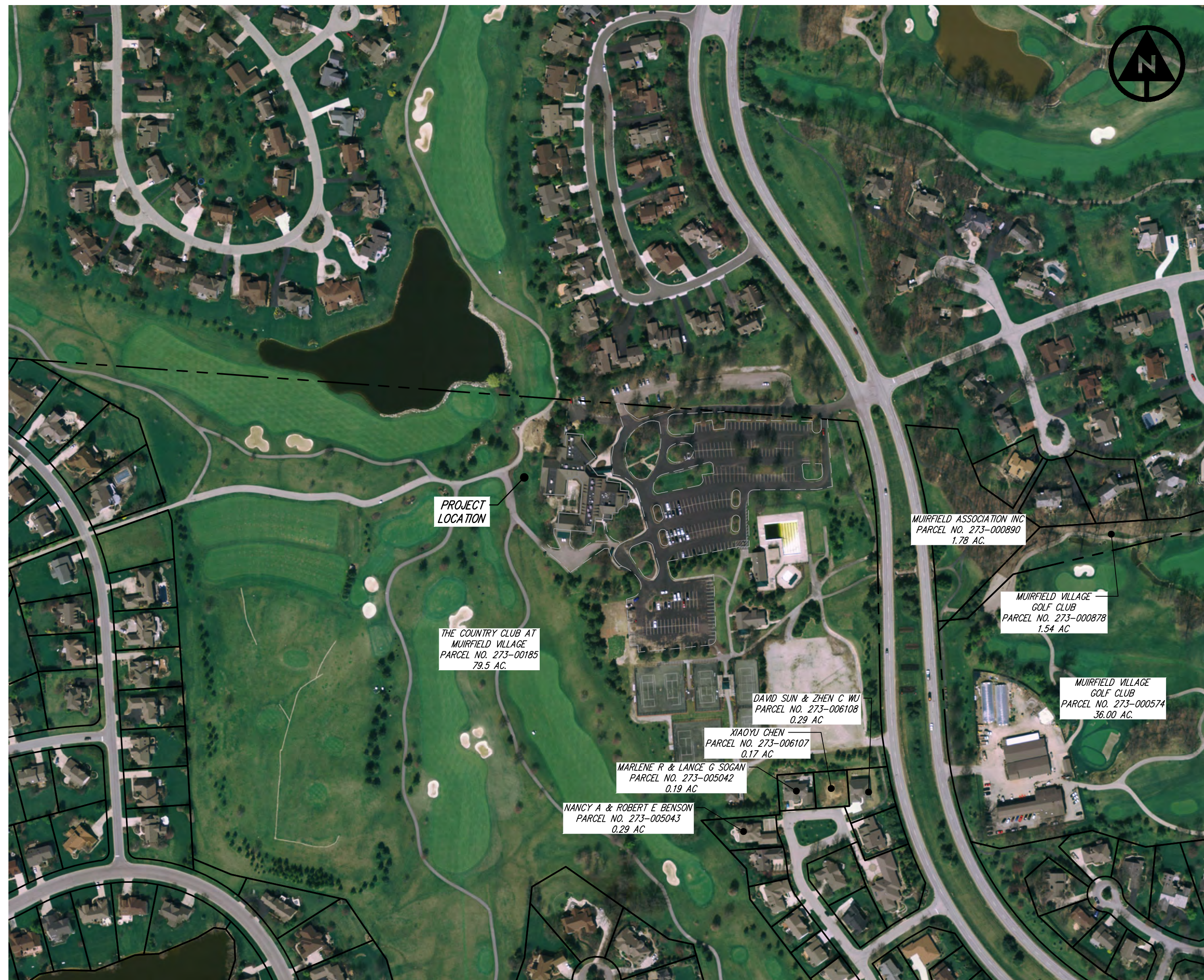
SEE THE STORM WATER MANAGEMENT REPORT FOR ADDITIONAL INFORMATION.

LIMITS OF DISTURBANCE

0.26 AC (SEE SHEET C7.0 FOR LIMITS)

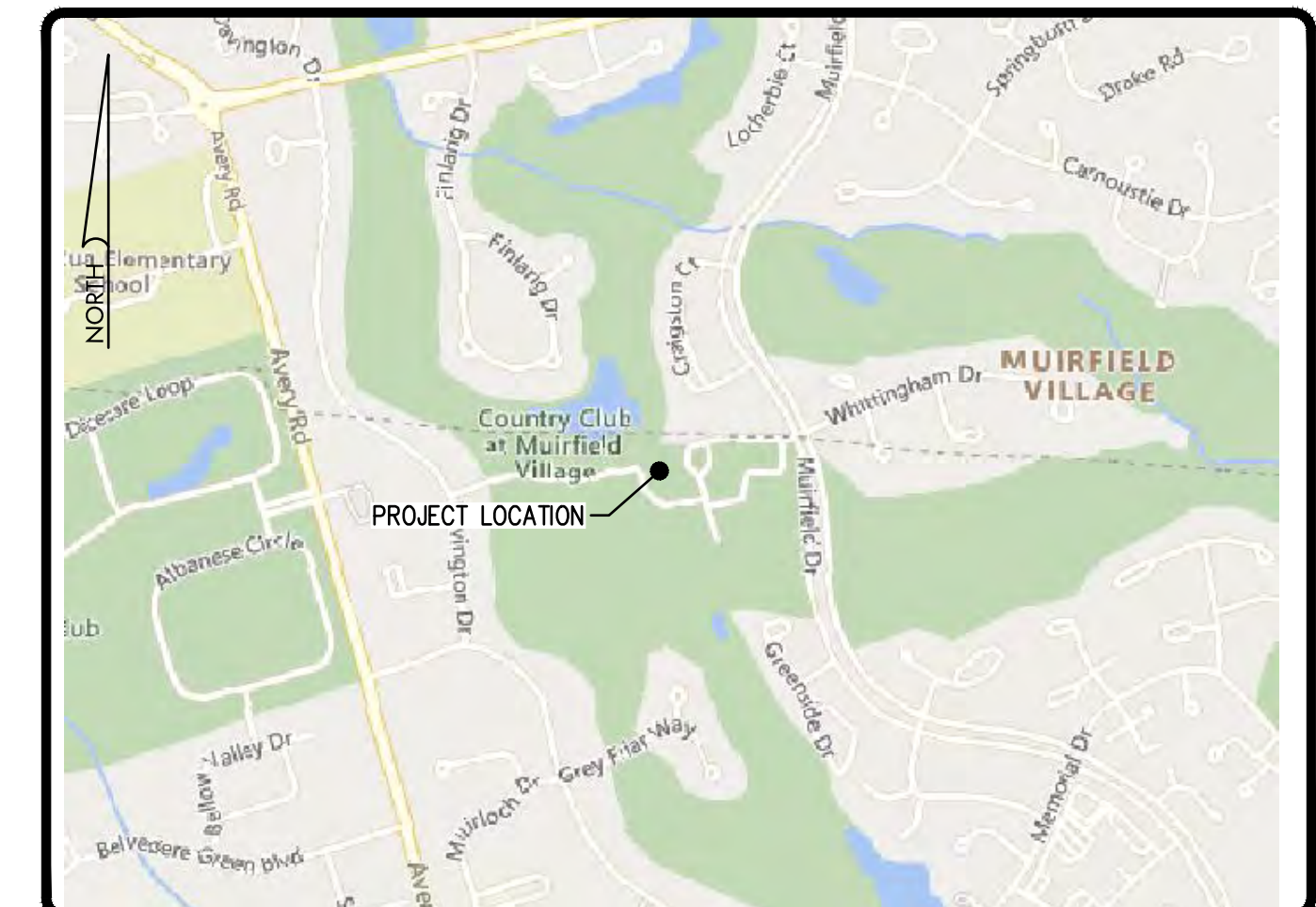
PRE-CONSTRUCTION NOTICE

THE PLANS HAVE BEEN PREPARED USING THE MOST ACCURATE INFORMATION AND DATA AVAILABLE AT THE TIME OF PREPARATION. FIELD CONDITIONS MAY BE ENCOUNTERED DURING CONSTRUCTION WHICH MAY VARY FROM THOSE DEPICTED HEREIN. MODIFICATIONS TO THE DESIGN AS SHOWN MAY BE REQUIRED BASED ON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. IN ANY EVENT, THE ENGINEERING OBJECTIVES OF DESIGN SHALL BE MET. IF FIELD CONDITIONS ARE ENCOUNTERED PRIOR TO CONSTRUCTION OR DURING CONSTRUCTION THAT DIFFER SIGNIFICANTLY FROM THE CONDITIONS SHOWN ON THE PLANS, THE CONTRACTOR MUST STOP WORK AND NOTIFY THE OWNER AND ENGINEER IMMEDIATELY.



INDEX MAP

SCALE 1" = 200'



MAP: LOCATION MAP SCALE: 1" = 1000'



INDEX OF SHEETS	
SHEET NO.	SHEET TITLE
C1.0	COVER SHEET
C2.0	GENERAL NOTES
C3.0	GENERAL NOTES
C4.0	EXISTING CONDITIONS
C5.0	STAKING PLAN
C6.0	UTILITY PLAN
C7.0	GRADING PLAN
C8.0	DRAINAGE PROFILES
C9.0	TYPICAL DETAILS
C10.0	TYPICAL DETAILS

ERIC J. KOCH, PE 85707 _____ DATE

APPROVALS

CITY OF DUBLIN SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND THE GENERAL LOCATION OF THE PROJECT AND DO NOT CONSTITUTE ASSURANCE TO OPERATE AS INTENDED. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL CIVIL ENGINEER PREPARING THE PLANS.

PAUL A. HAMMERSMITH, P.E. _____ DATE
DIRECTOR OF ENGINEERING/CITY ENGINEER
CITY OF DUBLIN, OHIO

JENNIFER M. RAUCH, AICP _____ DATE
DIRECTOR OF PLANNING
CITY OF DUBLIN, OHIO

DIRECTOR OF LAND USE _____ DATE
CITY OF DUBLIN, OHIO



6397 EMERALD PKWY, SUITE 200
DUBLIN, OH 43016
TEL 614.793.8777
FAX 614.360.0023

DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT NO.:
EJK	PKW	EJK	18164

PRIVATE SITE IMPROVEMENT PLAN FOR
THE COUNTRY CLUB AT MURIFIELD VILLAGE
PHASE IV SITE IMPROVEMENT
THE WEST VERANDA
FRANKLIN COUNTY, DUBLIN, OHIO
COVER SHEET

APPLICATION NO. _____

DATE: 08/09/2023

SCALE: AS NOTED

SHEET: C1.0

GENERAL NOTES:

- CITY OF COLUMBUS AND OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITIONS, AND ANY SUPPLEMENTS THERETO (HEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS), SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED. IF A CONFLICT BETWEEN SPECIFICATIONS IS FOUND, THE MORE STRICT SPECIFICATION WILL APPLY AS DETERMINED BY THE CITY ENGINEER. ITEM NUMBERS LISTED REFER TO CITY OF COLUMBUS ITEM NUMBERS UNLESS OTHERWISE NOTED.
- THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED HEREIN. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR SAFETY ON THE WORK SITE, OR FOR FAILURE BY THE CONTRACTOR TO PERFORM WORK ACCORDING TO CONTRACT DOCUMENTS.
- THE DEVELOPER OR CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO OHIO EPA PERMITS TO INSTALL (PTI) AND NOTICES OF INTENT (NOI), BUILDING PERMITS, ETC.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF DUBLIN DIVISION OF ENGINEERING IN WRITING AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. THE CONTRACTOR SHALL EXERCISE PRECAUTION ALWAYS FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING THE REQUIREMENTS FOR CONFINED SPACES PER 29 CFR 1910.146.
- FOLLOWING COMPLETION OF CONSTRUCTION OF THE SITE IMPROVEMENTS AND BEFORE REQUESTING OCCUPANCY, A PROOF SURVEY SHALL BE PROVIDED TO THE DIVISION OF ENGINEERING THAT DOCUMENTS "AS_BUILT" ELEVATIONS, DIMENSIONS, SLOPES AND ALIGNMENTS OF ALL ELEMENTS OF THIS PROJECT. THE PROOF SURVEY SHALL BE PREPARED, SIGNED AND SUBMITTED BY THE PROFESSIONAL ENGINEER WHO SEALED THE CONSTRUCTIONS DRAWINGS.
- THE CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO PUBLIC RIGHT-OF-WAY AND AREAS DEFINED AS PERMANENT AND/OR TEMPORARY CONSTRUCTION EASEMENTS, UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS. IN CASES OF WILLFUL OR CARELESS DESTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATIONS. RESETTING OF MARKERS SHALL BE PERFORMED BY AN OHIO PROFESSIONAL SURVEYOR AS APPROVED BY THE CITY ENGINEER.
- NON RUBBER TIERED VEHICLES SHALL NOT BE MOVED ON OR ACROSS PUBLIC STREETS OR HIGHWAYS WITHOUT THE WRITTEN PERMISSION OF THE CITY ENGINEER.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION. DRAINAGE DITCHES OR WATERCOURSES THAT ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THE GRADES AND CROSS SECTIONS THAT EXISTED BEFORE CONSTRUCTION.
- TRACKING OR SPILLING MUD, DIRT OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS OR BIKE PATHS IS PROHIBITED ACCORDING TO SECTION 97.38 OF THE DUBLIN CODE OF ORDINANCES. ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE CITY. IF THE CONTRACTOR FAILS TO REMOVE SAID MUD, DIRT, DEBRIS, OR SPILLAGE, THE CITY RESERVES THE RIGHT TO REMOVE THESE MATERIALS AND CLEAN AFFECTED AREAS, THE COST OF WHICH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- DISPOSAL OF EXCESS EXCAVATION WITHIN SPECIAL FLOOD HAZARD AREAS (100-YEAR FLOODPLAIN) IS NOT PERMITTED.
- ALL SIGNS, LANDSCAPING, STRUCTURES OR OTHER APPURTENANCES WITHIN RIGHT-OF-WAY DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL FIELD TILE BROKEN OR ENCOUNTERED DURING EXCAVATION SHALL BE REPLACED OR REPAIRED AND CONNECTED TO THE PUBLIC STORM SEWER SYSTEM AS DIRECTED BY THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL PRECAST CONCRETE PRODUCTS SHALL BE INSPECTED AT THE LOCATION OF MANUFACTURE. APPROVED PRECAST CONCRETE PRODUCTS WILL BE STAMPED OR HAVE SUCH IDENTIFICATION NOTING THAT INSPECTION HAS BEEN CONDUCTED BY THE CITY OF COLUMBUS. PRECAST CONCRETE PRODUCTS WITHOUT PROOF OF INSPECTION SHALL NOT BE APPROVED FOR INSTALLATION.
- BACKFILL WITHIN A 1:1 INFLUENCE LINE OF EXISTING STRUCTURES (HOUSES, GARAGES, ETC.) OR PUBLIC INFRASTRUCTURE (PAVEMENT, CURBS, SIDEWALKS, BIKE PATHS, ETC.) SHALL BE COMPACTED GRANULAR BACKFILL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS OR FLOWABLE CDF, TYPE II ACCORDING TO ITEM 613. ITEM 911 OF THE STANDARD SPECIFICATIONS SHALL BE USED ELSEWHERE.
- THE CONTRACTOR SHALL SUBMIT A COPY OF THE APPROVED CONSTRUCTION DRAWINGS AND A LIST OF PROPOSED PRECAST CONCRETE PRODUCT MANUFACTURERS TO THE CITY OF COLUMBUS CONSTRUCTION INSPECTION DIVISION BEFORE COMMENCING CONSTRUCTION.

SEND THE INFORMATION TO THE FOLLOWING ADDRESS:

CONSTRUCTION INSPECTION DIVISION
CITY OF COLUMBUS
1800 EAST 17TH AVENUE
COLUMBUS, OHIO 43219

SEND A COPY OF THE TRANSMITTAL LETTER TO THE FOLLOWING ADDRESS:

DIVISION OF ENGINEERING
CITY OF DUBLIN
6555 SHIER RINGS ROAD
DUBLIN, OHIO 43016

- ALL TRENCHES WITHIN PUBLIC RIGHT-OF-WAY SHALL BE BACKFILLED ACCORDING TO THE APPROVED CONSTRUCTION DRAWINGS OR SECURELY PLATED DURING NONWORKING HOURS. TRENCHES OUTSIDE THESE AREAS SHALL BE BACKFILLED OR SHALL BE PROTECTED BY APPROVED TEMPORARY FENCING OR BARRICADES DURING NONWORKING HOURS. CLEAN UP SHALL FOLLOW CLOSELY BEHIND THE TRENCHING OPERATION.
- ALL TREES WITHIN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. TREES TO BE PRESERVED SHALL BE PROTECTED WITH HIGH VISIBILITY FENCING PLACED A MINIMUM 15 FEET FROM THE TREE TRUNK. TREES 6 - INCHES OR GREATER AT DBH (DIAMETER BREAST HEIGHT) MUST BE PROTECTED WITH FENCING PLACED AT THE CRITICAL ROOT ZONE OR 15 FEET, WHICHEVER IS GREATER. TREES NOT INDICATED ON THE APPROVED CONSTRUCTION DRAWINGS FOR REMOVAL MAY NOT BE REMOVED WITHOUT PRIOR APPROVAL OF THE DIVISION OF ENGINEERING.
- CONDUIT MUST BE DIRECTIONALLY BORED ACROSS STREETS INSTEAD OF OPEN CUT, UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER. USE OF PNEUMATIC AIR RAM DEVICES IS NOT PERMITTED. PERMITS TO CONSTRUCT IN THE RIGHT-OF-WAY OF EXISTING STREETS MUST BE OBTAINED FROM THE CITY OF DUBLIN DIVISION OF ENGINEERING BEFORE COMMENCING CONSTRUCTION. SHOULD OPEN CUTTING OF EXISTING PAVEMENT BE PERMITTED, CONTROLLED DENSITY BACKFILL (TYPE II) SHALL BE USED IN PLACE OF COMPACTED GRANULAR BACKFILL, ACCORDING TO ITEM 613 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONDITION OF TRENCHES WITHIN THE RIGHT-OF-WAY AND PUBLIC EASEMENTS FOR A PERIOD OF ONE YEAR FROM THE FINAL ACCEPTANCE OF THE WORK, AND SHALL MAKE ANY NECESSARY REPAIRS AT NO COST TO THE CITY.
- PAVEMENTS SHALL BE CUT IN NEAT, STRAIGHT LINES THE FULL DEPTH OF THE EXISTING PAVEMENT, OR AS REQUIRED BY THE CITY ENGINEER. PAVEMENT REPLACEMENT SHALL BE CONDUCTED ACCORDING TO CITY OF COLUMBUS STANDARD DRAWING 1441 DR. A AND APPLICABLE CITY OF DUBLIN STANDARD DRAWINGS. THE REPLACEMENT OF DRIVEWAYS, HANDICAPPED RAMPS, SIDEWALKS, BIKE PATHS, PARKING LOT PAVEMENT, ETC. SHALL BE PROVIDED ACCORDING TO THE APPROVED CONSTRUCTION DRAWINGS AND CITY OF DUBLIN STANDARD CONSTRUCTION DRAWINGS.
- TREE TRIMMING WITHIN THE CONSTRUCTION ZONE IS TO BE COMPLETED BY A CERTIFIED ARBORIST. AT THE COMPLETION OF THE PROJECT, THE ARBORIST IS TO RETURN AND TRIM ANY BROKEN BRANCHES AS NEEDED.
- ANY MODIFICATION TO THE WORK SHOWN ON DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER, CITY OF DUBLIN.
- ALL INLETS SHALL BE CHANNELIZED.
- PARK AREAS SHALL BE FINE_GRADED AND SEEDED WITH THE FOLLOWING MIXTURE:
IMPROVED KENTUCKY BLUEGRASS: 40% OF WEIGHT (2 VARIETIES IN EQUAL PARTS)
IMPROVED PERENNIAL RYE: 60% OF WEIGHT (2 VARIETIES IN EQUAL PARTS)
GERMINATION RATE: 85%
APPLICATION RATE: 7 LBS PER 1000 SQ FT OR AS DIRECTED BY THE DIVISION OF PARKS AND RECREATION, CITY OF DUBLIN, OHIO.
- TRAFFIC CONTROL AND OTHER REGULATORY SIGNS SHALL BE TYPE S WITH A SQUARE POST ANCHOR BASE INSTALLATION AND MEET ALL REQUIREMENTS OF ODOT TC-41.20 AND APPLICABLE CITY OF DUBLIN SPECIFICATIONS.
- STREET SIGNS SHALL MEET ALL CITY OF DUBLIN SPECIFICATIONS WITH LETTERING COLORED IN WHITE DISPLAYED OVER A BROWN BACKGROUND. SIGN TUBING SHALL BE BROWN IN COLOR AND CONFORM WITH THE TYPE S, SQUARE POST ANCHOR BASE INSTALLATION REQUIREMENTS OF ODOT TC-41.20.

UTILITY NOTES:

THE FOLLOWING UTILITIES ARE KNOWN TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT:

INSIDE LIMITS OF DISTURBANCE:	OUTSIDE LIMITS OF DISTURBANCE:
8" SANITARY SEWER (87-015-RES) CITY OF DUBLIN 614-410-4750	21" STORM DRAIN (73-002-CIP) CITY OF DUBLIN 614-410-4750

- THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO OHIO UTILITIES PROTECTION SERVICE (OUPS) AT 811 OR 800-362-2764, OIL AND GAS PRODUCER'S UNDERGROUND PROTECTION SERVICE (OGPUPS) AT 811 OR 614-715-2984, AND TO OWNERS OF UNDERGROUND UTILITIES THAT ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE. NOTICE SHALL BE GIVEN AT LEAST 2 WORKING DAYS, BUT NOT MORE THAN 10 WORKING DAYS BEFORE THE START OF CONSTRUCTION.
- THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY. THE CITY OF DUBLIN AND THE CITY ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.
- LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS BID ITEMS OF THE CONTRACT.
- WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE CITY ENGINEER OR HIS REPRESENTATIVE.
- PUBLIC STREET LIGHTING MAY BE IN THE VICINITY OF THIS PROJECT. CONTACT THE CITY OF DUBLIN, DIVISION OF ENGINEERING AT 410-4637, TWO DAYS PRIOR TO BEGINNING WORK.

SANITARY SEWER NOTES:

- CONNECTIONS TO THE SANITARY SEWER WILL BE PERMITTED UPON RECEIVING AN OEPA PERMIT TO INSTALL (PTI), AND UPON RECEIVING A SATISFACTORY LETTER FROM THE DESIGN ENGINEER STATING THAT THE PROJECT HAS BEEN CONSTRUCTED AS PER THE PLANS, AND ALL OF THE CONDITIONS OF THE PTI HAVE BEEN MET. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL REQUIRED OHIO EPA APPROVALS AND PAYING REVIEW FEES.
- SANITARY SEWAGE COLLECTION SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RULES, REGULATIONS, STANDARDS AND SPECIFICATIONS OF THE CITY OF DUBLIN, OHIO EPA, OHIO DEPARTMENT OF HEALTH AND THE CURRENT EDITION OF THE GREAT LAKES-UPPER MISSISSIPPI RIVER BOARD (TEN STATES) - RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES.
- THE MINIMUM REQUIREMENTS FOR SANITARY SEWER PIPE WITH DIAMETERS 15 INCHES AND SMALLER SHALL BE REINFORCED CONCRETE PIPE ASTM C76 CLASS 3, OR PVC SEWER PIPE ASTM D3034, SDR 35. PIPE FOR 6-INCH DIAMETER HOUSE SERVICE LINES SHALL BE PVC PIPE ASTM D3034, SDR 35. PVC PIPE SHALL NOT BE USED AT DEPTHS GREATER THAN 28 FEET. PIPE MATERIALS AND RELATED STRUCTURES SHALL BE SHOP TESTED IN ACCORDANCE WITH CITY OF COLUMBUS CONSTRUCTION INSPECTION DIVISION QUALITY CONTROL REQUIREMENTS.
- THE MINIMUM REQUIREMENTS FOR SANITARY SEWER PIPES WITH DIAMETERS GREATER THAN 15 INCHES SHALL BE REINFORCED CONCRETE PIPE ASTM C76 WITH CLASS DESIGNATION SPECIFIED IN THE APPROVED CONSTRUCTION DRAWINGS.
- ALL IN-LINE WYE AND TEE CONNECTIONS IN CONCRETE SEWERS, 18-INCH DIAMETER AND LARGER, SHALL BE EITHER KOR-N-TEE OR KOR-N-SEAL CONNECTIONS CONFORMING TO THE MANUFACTURER'S RECOMMENDATIONS.
- GRANULAR BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS OR CONTROLLED DENSITY BACKFILL ACCORDING TO ITEM 613, TYPE II OF THE STANDARD SPECIFICATIONS AS DIRECTED BY THE CITY ENGINEER.
- ALL MANHOLE LIDS SHALL BE PROVIDED WITH CONTINUOUS SELF SEALING GASKETS. THE APPROVED CONSTRUCTION DRAWINGS SHALL SHOW WHERE BOLT DOWN LIDS ARE REQUIRED. SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE OR AS APPROVED BY THE CITY ENGINEER AND CONFORM TO THE CITY OF DUBLIN SANITARY MANHOLE STANDARD DRAWING. MANHOLE LIDS SHALL INCLUDE CITY OF DUBLIN LOGO.
- ALL PVC SEWER PIPES SHALL BE DEFLECTION TESTED NO LESS THAN 60 DAYS AFTER COMPLETION OF BACKFILLING OPERATIONS. ALL OTHER REQUIREMENTS SHALL BE ACCORDING TO ITEM 901.21 OF THE STANDARD SPECIFICATIONS.
- TEMPORARY BULKHEADS SHALL BE PLACED IN PIPES AT LOCATIONS SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AND SHALL REMAIN IN PLACE UNTIL THE PERMIT TO INSTALL (PTI) HAS BEEN ISSUED BY THE OEPA AND THE SEWERS HAVE BEEN APPROVED FOR USE BY THE CITY ENGINEER. THE COST FOR FURNISHING, INSTALLING, MAINTAINING, AND REMOVING BULKHEADS SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE FOR THE VARIOUS SANITARY SEWER ITEMS.
- ALL SANITARY SEWERS INCLUDING SANITARY SEWER SERVICE LINES SHALL BE SUBJECTED TO AND PASS INFILTRATION OR EXFILTRATION TESTS ACCORDING TO ITEM 901 OF THE STANDARD SPECIFICATIONS AND MUST BE APPROVED FOR USE BY THE CITY ENGINEER BEFORE ANY SERVICE CONNECTIONS ARE TAPPED INTO SEWERS.
- FOR SANITARY SEWER INFILTRATION, LEAKAGE THROUGH JOINTS SHALL NOT EXCEED 100 GALLONS PER INCH OF TRIBUTARY SEWER DIAMETER PER 24 HOURS PER MILE OF LENGTH OR THE COMPUTED EQUIVALENT. ALL SANITARY SEWERS SHALL BE TESTED.
- AT THE DETERMINATION OF THE CITY ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO PERFORM A TV INSPECTION OF THE SANITARY SEWER SYSTEM PRIOR TO FINAL ACCEPTANCE BY THE CITY. THIS WORK SHALL BE COMPLETED BY THE CONTRACTOR AT HIS EXPENSE.
- VISIBLE LEAKS OR OTHER DEFECTS OBSERVED OR DISCOVERED DURING TV INSPECTION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.
- ROOF DRAINS, FOUNDATION DRAINS, FIELD TILE OR OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE STRICTLY PROHIBITED ACCORDING TO SECTION 51.23 OF THE DUBLIN CODE OF ORDINANCES.
- ALL WATER LINES SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY, FROM SANITARY SEWERS AND STORM SEWERS, TO THE GREATEST EXTENT PRACTICABLE. WHERE SANITARY SEWERS CROSS WATER MAINS OR OTHER SEWERS OR OTHER UTILITIES, TRENCH BACKFILL SHALL BE PLACED BETWEEN THE PIPES CROSSING AND SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS. IN THE EVENT THAT A WATER LINE MUST CROSS WITHIN 18 INCHES OF A SANITARY SEWER, THE SANITARY SEWER SHALL BE CONCRETE ENCASED OR CONSIST OF DUCTILE IRON PIPE MATERIAL.

SANITARY SEWER NOTES (CONT):

- SERVICE RISERS SHALL BE INSTALLED WHERE THE DEPTH FROM WYES TO PROPOSED GROUND ELEVATION EXCEEDS 10 FEET. TOPS OF RISERS SHALL BE NO LESS THAN 9 FEET BELOW PROPOSED GROUND ELEVATION IF BASEMENT SERVICE IS INTENDED.
- WHERE SERVICE RISERS ARE NOT INSTALLED, A MINIMUM 5 FOOT LENGTH OF SANITARY SEWER SERVICE PIPE OF THE SAME SIZE AS THE WYE OPENING SHALL BE INSTALLED.
- THE CONTRACTOR SHALL FURNISH AND PLACE, AS DIRECTED, APPROVED WYE POLES MADE OF 2 INCHES X 2 INCHES LUMBER AT ALL WYE LOCATIONS, ENDS OF EXTENDED SERVICES, OR AT THE END OF EACH RISER WHERE RISERS ARE REQUIRED. WYE POLES SHALL BE VISIBLE BEFORE ACCEPTANCE BY THE CITY. THE COST OF THESE POLES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS SEWER ITEMS.
- EXISTING SANITARY SEWER FLOWS SHALL BE MAINTAINED AT ALL TIMES. COSTS FOR PUMPING AND BYPASSING SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE BID FOR THE RELATED ITEMS.
- THE CONTRACTOR SHALL FURNISH ALL MATERIAL, EQUIPMENT, AND LABOR TO MAKE CONNECTIONS TO EXISTING MANHOLES. THE SEWER PIPE TO MANHOLE CONNECTIONS FOR ALL SANITARY SEWERS SHALL BE FLEXIBLE AND WATERTIGHT. ALL HOLES SHALL BE NEATLY CORED. THE SEWER PIPE BARREL AT THE SPRINGLINE SHALL NOT EXTEND MORE THAN 1 INCH BEYOND THE INSIDE FACE OF THE MANHOLE. TO MAINTAIN FLEXIBILITY IN THE CONNECTION, A 1 INCH SPACE SHALL BE LEFT BETWEEN THE END OF THE PIPE INSIDE THE MANHOLE AND THE CONCRETE CHANNEL; THIS SPACE SHALL BE FILLED WITH A WATERPROOF FLEXIBLE JOINT FILLER. ANY METAL THAT IS USED SHALL BE TYPE 300 SERIES STAINLESS STEEL. THE CONNECTION MAY BE ANY OF THE FOLLOWING TYPES:
 - RUBBER SLEEVE WITH STAINLESS STEEL BANDING.
 - KOR-N-SEAL AS MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC.
 - LOCK JOINT FLEXIBLE MANHOLE SLEEVE AS MANUFACTURED BY INTERPACE CORPORATION.
 - OR EQUAL AS APPROVED BY THE CITY ENGINEER.
- RUBBER GASKET COMPRESSION.
 - PRESS WEDGE II AS MANUFACTURED BY PRESS_SEAL GASKET CORPORATION.
 - DURA SEAL III AS MANUFACTURED BY DURA TECH, INC.
 - LINK-SEAL AS MANUFACTURED BY THUNDERLINE CORPORATION.
 - OR EQUAL AS APPROVED BY THE CITY ENGINEER.

THE COST FOR THIS WORK ALONG WITH A NEW CHANNELIZED BASE FOR THE MANHOLE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RELATED ITEMS OF WORK.

WATER LINE

- ALL WATER LINE MATERIALS SHALL BE PROVIDED AND INSTALLED ACCORDING TO CURRENT SPECIFICATIONS OF THE CITY OF COLUMBUS DIVISION OF WATER.
- ALL PUBLIC WATER PIPE WITH A DIAMETER 3 INCHES TO 8 INCHES SHALL BE DUCTILE IRON, CLASS 53. PUBLIC WATER PIPE 12 INCHES IN DIAMETER OR LARGER SHALL BE DUCTILE IRON, CLASS 54. PUBLIC WATER PIPE 20 INCHES IN DIAMETER OR LARGER MAY BE PRESTRESSED CONCRETE PIPE. PRIVATE WATER PIPE SHALL MEET THE APPROVAL OF THE CITY OF COLUMBUS DIVISION OF WATER PRIOR TO APPROVAL OF THE CONSTRUCTION DRAWINGS.
- ONLY FIRE HYDRANTS CONFORMING TO CITY OF COLUMBUS STANDARDS WILL BE APPROVED FOR USE.
- PUBLIC WATER LINES SHALL BE DISINFECTED BY THE CITY OF COLUMBUS DIVISION OF WATER. REQUESTS FOR WATER LINE CHLORINATION SHALL BE MADE THROUGH THE CITY OF DUBLIN DIVISION OF ENGINEERING. THE COST FOR CHLORINATION SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL WATER LINES SHALL BE DISINFECTED ACCORDING TO ITEM 801.13 OF THE STANDARD SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF AMERICAN WATER WORKS ASSOCIATION SPECIFICATION C 651, PARTICULARLY FOR FLUSHING (SECTION 5) AND FOR CHLORINATING VALVES AND FIRE HYDRANTS (SECTION 7). PRESSURE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 801.12 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. WHEN WATER LINES ARE READY FOR DISINFECTION, THE CITY OF DUBLIN SHALL SUBMIT TWO (2) SETS OF "AS-BUILT" PLANS, AND A LETTER STATING THAT THE WATER LINES HAVE BEEN PRESSURE TESTED AND NEED TO BE DISINFECTED, TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER LINES CONSTRUCTION PER THIS PLAN. PRESSURE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 801.12 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.
- THE CONTRACTOR SHALL PAINT ALL FIRE HYDRANTS ACCORDING TO CITY OF DUBLIN STANDARDS. THE COST OF PAINTING FIRE HYDRANTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR FIRE HYDRANTS.
- NO WATER TAPS OR SERVICE CONNECTIONS (E.G., TO CURB STOPS OR METER PITS) MAY BE ISSUED UNTIL ADJACENT PUBLIC WATER LINES SERVING THE CONSTRUCTION SITE HAVE BEEN DISINFECTED BY THE CITY OF COLUMBUS DIVISION OF WATER AND HAVE BEEN ACCEPTED BY THE CITY ENGINEER. A TAP PERMIT FOR EACH WATER SERVICE MUST BE OBTAINED FROM THE CITY OF DUBLIN AND THE CITY OF COLUMBUS DIVISION OF WATER BEFORE MAKING ANY TAPS INTO PUBLIC WATER LINES.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS DIVISION OF WATER AT 645 7788 AND THE CITY OF DUBLIN DIVISION OF ENGINEERING AT LEAST 24 HOURS BEFORE TAPPING INTO EXISTING WATER LINES.
- ALL WATER MAIN STATIONING SHALL BE BASED ON STREET CENTERLINE STATIONING.
- ALL BENDS, JOINT DEFLECTIONS AND FITTINGS SHALL BE BACKED WITH CONCRETE PER CITY OF COLUMBUS STANDARDS.
- THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ALL AFFECTED PROPERTY OWNERS AT LEAST 1 WORKING DAY BUT NOT MORE THAN 3 WORKING DAYS PRIOR TO ANY TEMPORARY INTERRUPTION OF WATER SERVICE. INTERRUPTION OF WATER SERVICE SHALL BE MINIMIZED AND MUST BE APPROVED BY THE CITY ENGINEER.
- WATER METERS SHALL BE INSTALLED INSIDE PROPOSED STRUCTURES UNLESS A METER PIT INSTALLATION IS APPROVED BY THE CITY OF COLUMBUS DIVISION OF WATER. METER PITS MUST CONFORM TO STANDARD DRAWINGS L-7103, A&B FOR 5/8" THROUGH 1" METERS OR L-6317, A, B, C&D FOR 1-1/2" OR LARGER METERS.
- WATER LINES TO BE INSTALLED IN EMBANKMENT AREAS SHALL BE PLACED AFTER THE EMBANKMENT HAS BEEN PLACED AND COMPACTED ACCORDING TO THE STANDARD SPECIFICATIONS.
- CURB STOP BOXES SHALL BE LOCATED AT LEAST 1 FOOT INSIDE THE RIGHT_OF_WAY AND SET AT FINISHED GRADE.
- IF THE TOP OF THE OPERATING NUT OF ANY VALVE IS GREATER THAN 36 INCHES BELOW FINISHED GRADE, AN EXTENSION STEM SHALL BE FURNISHED TO BRING THE TOP OF THE OPERATING NUT TO WITHIN 24 INCHES OF FINISHED GRADE ELEVATION.
- ALL WATER LINES SHALL BE PLACED AT A MINIMUM DEPTH OF 4 FEET MEASURED FROM TOP OF FINISHED GRADE TO TOP OF WATER LINE. WATER LINES SHALL BE SET DEEPER AT ALL POINTS WHERE NECESSARY TO CLEAR EXISTING OR PROPOSED UTILITY LINES OR OTHER UNDERGROUND RESTRICTIONS BY A MINIMUM OF 18 INCHES.
- TWO 3/4 INCH TAPS SHALL BE INSTALLED WITHIN 2 FEET OF THE END OF THE LINE ON ALL DEAD-END WATER LINES.



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PRIVATE SITE IMPROVEMENT PLAN FOR
THE COUNTRY CLUB AT MUIRFIELD VILLAGE
PHASE IV SITE IMPROVEMENT
THE WEST VERANA
FRANKLIN COUNTY, DUBLIN, OHIO
GENERAL NOTES

APPLICATION NO.	
DATE:	08/09/2023
SCALE:	
SHEET:	C2.0

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SANITARY SEWER NOTES (CONT):

USE OF FIRE HYDRANTS

1. THE CONTRACTOR SHALL MAKE PROPER ARRANGEMENTS WITH THE DUBLIN SERVICE DEPARTMENT AND THE COLUMBUS DIVISION OF WATER FOR THE USE OF FIRE HYDRANTS WHEN USED FOR WORK PERFORMED UNDER THIS CONTRACT AND PROVIDE THE CITY OF DUBLIN A COPY OF THE HYDRANT USAGE PERMIT OBTAINED FROM THE CITY OF COLUMBUS. THE CONTRACTOR SHALL ALSO SEND A COPIES OF PERMITS OBTAINED FROM DUBLIN AND COLUMBUS TO THE WASHINGTON AND/OR PERRY TOWNSHIP FIRE DEPARTMENT. PERMITS SHALL BE KEPT AT THE CONSTRUCTION SITE AT ALL TIMES.
2. BEFORE THE FINAL ESTIMATE IS PAID, THE CONTRACTOR SHALL SUBMIT A LETTER FROM THE CITY OF COLUMBUS DIVISION OF WATER TO THE CITY ENGINEER STATING THAT THE CONTRACTOR HAS RETURNED THE SIAMESE VALVE TO THE CITY OF COLUMBUS AND HAS PAID ALL COSTS ARISING FROM THE USE OF THE FIRE HYDRANTS.

STORM SEWER NOTES:

1. ALL STORM WATER DETENTION AND RETENTION AREAS AND MAJOR FLOOD ROUTING SWALES SHALL BE CONSTRUCTED TO FINISH GRADE AND HYDRO-SEEDED AND HYDRO-MULCHED ACCORDING TO ITEMS 203 AND 659 OF THE STANDARD SPECIFICATIONS.
2. WHERE PRIVATE STORM SEWERS CONNECT TO PUBLIC STORM SEWERS, THE LAST RUN OF PRIVATE STORM SEWER CONNECTING TO THE PUBLIC STORM SEWER SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C76, WALL B, CLASS IV FOR PIPE DIAMETERS 12 INCHES TO 15 INCHES, CLASS III FOR 18 INCHES TO 24 INCH PIPES, AND 27 INCHES AND LARGER PIPE SHALL BE CLASS II, UNLESS OTHERWISE SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. INSPECTION IS REQUIRED BY THE CITY OF DUBLIN'S DIVISION OF ENGINEERING.
3. GRANULAR BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS OR CONTROLLED DENSITY BACKFILL ACCORDING TO ITEM 613, TYPE II OF THE STANDARD SPECIFICATIONS AS DIRECTED BY THE CITY ENGINEER.
4. ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C76, WALL B, CLASS IV FOR PIPE DIAMETERS 12 INCHES TO 15 INCHES, CLASS III FOR 18 INCHES TO 24 INCH PIPES, AND 27 INCHES AND LARGER PIPE SHALL BE CLASS II, UNLESS OTHERWISE SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS.
5. HEADWALLS AND ENDWALLS SHALL BE REQUIRED AT ALL STORM SEWER INLETS OR OUTLETS TO AND FROM STORMWATER MANAGEMENT FACILITIES. NATURAL STONE AND/OR BRICK APPROVED BY THE CITY ENGINEER SHALL BE PROVIDED ON ALL VISIBLE HEADWALLS AND/OR ENDWALLS SURFACES.
6. STORM INLETS OR CATCH BASINS SHALL BE CHANNELIZED AND HAVE BICYCLE SAFE GRATES. MANHOLE LIDS SHALL INCLUDE CITY OF DUBLIN LOGO AND ALL CURB INLET AND CATCH BASIN GRATES SHALL INDUCE ENGRAVED LETTERING: "DUMP NO WASTE; DRAINS TO RIVER."
6. STORM SEWER OUTLETS GREATER THAN 18 INCHES IN DIAMETER ACCESSIBLE FROM STORMWATER MANAGEMENT FACILITIES OR WATERCOURSES SHALL BE PROVIDED WITH SAFETY GRATES, AS APPROVED BY THE CITY ENGINEER.

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR OR DEVELOPER IS RESPONSIBLE FOR SUBMITTING A NOTICE OF INTENT (NOI) TO BE REVIEWED AND APPROVED BY THE OHIO EPA. THE NOI MUST BE SUBMITTED TO OEPA 45 DAYS PRIOR TO THE START OF CONSTRUCTION AND MAY ENTITLE COVERAGE UNDER THE OHIO EPA GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. A PROJECT LOCATION MAP MUST BE SUBMITTED WITH THE NOI. A SEDIMENT AND EROSION CONTROL PLAN MUST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL IF A SEDIMENT AND EROSION CONTROL PLAN HAS NOT ALREADY BEEN INCLUDED WITH THE APPROVED CONSTRUCTION DRAWINGS. THIS PLAN MUST BE MADE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE DESIGN OF EROSION CONTROL SYSTEMS SHALL FOLLOW THE REQUIREMENTS OF OHIO EPA, ITEM 207 OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AND THE CITY ENGINEER. AN INDIVIDUAL NPDES STORMWATER DISCHARGE PERMIT MAY BE REQUIRED. THE CONTRACTOR SHALL BE CONSIDERED THE PERMITTEE.
2. THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT ALL POINTS WHERE STORM WATER RUNOFF LEAVES THE PROJECT, INCLUDING WATERWAYS, OVERLAND SHEET FLOW, AND STORM SEWERS.
3. ACCEPTED METHODS OF PROVIDING EROSION/SEDIMENT CONTROL INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT BASINS, SILT FILTER FENCE, AGGREGATE CHECK DAMS, AND TEMPORARY GROUND COVER. HAY OR STRAW BALES ARE NOT PERMITTED.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE OF THE WORK AREA AT ALL TIMES CONSISTENT WITH EROSION CONTROL PRACTICES.
5. DISTURBED AREAS THAT WILL REMAIN UNWORKED FOR 30 DAYS OR MORE SHALL BE SEEDED OR PROTECTED WITHIN SEVEN CALENDAR DAYS OF THE DISTURBANCE. OTHER SEDIMENT CONTROLS THAT ARE INSTALLED SHALL BE MAINTAINED UNTIL VEGETATIVE GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE GROWTH OF PERMANENT GROUND COVER.

TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR ACCORDING TO OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), CURRENT EDITION.
2. ALL TRAFFIC LANES OF PUBLIC ROADWAYS SHALL BE FULLY OPEN TO TRAFFIC FROM 7:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM UNLESS AUTHORIZED DIFFERENTLY BY THE ENGINEER. AT ALL OTHER HOURS THE CONTRACTOR SHALL MAINTAIN MINIMUM ONE-LANE TWO-WAY TRAFFIC.
3. IF THE ENGINEER DETERMINES THAT THE CONTRACTOR IS NOT PROVIDING PROPER PROVISIONS FOR TRAFFIC CONTROL, THE ENGINEER SHALL INITIATE FIELD CHANGES, SUCH AS POLICE CRUISERS, UNIFORMED POLICE OFFICERS, OR OTHER MEASURES FOR PUBLIC SAFETY AT NO COST TO THE CITY.
4. STEADY-BURNING, TYPE "C" LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT.
5. ACCESS FROM PUBLIC ROADWAYS TO ALL ADJOINING PROPERTIES FOR EXISTING RESIDENTS OR BUSINESSES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT FOR MAIL, PUBLIC WATER AND SANITARY SEWER SERVICE, AND EMERGENCY VEHICLES. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN DETAILING THE PROPOSED MAINTENANCE OF TRAFFIC PROCEDURES, INCORPORATING ANY TRAFFIC CONTROL DETAILS CONTAINED HEREIN. THE CONTRACTOR MUST OBTAIN APPROVAL OF THE TRAFFIC CONTROL PLAN BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL REPLACE WITHIN 72 HOURS, ALL TRAFFIC SIGNAL DETECTORS DAMAGED DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL REPLACE WITHIN 24 HOURS, ALL STRIPING REMOVED OR DAMAGED BY CONSTRUCTION WORK.
8. THE CONTRACTOR SHALL COVER EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL AND REMOVE COVERS WHEN TEMPORARY TRAFFIC CONTROL IS REMOVED.
9. THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC CONTROL DEVICES 24 HOURS PER DAY AND 7 DAYS PER WEEK.

TRAFFIC CONTROL NOTES (CONT):

10. A FLASHING ARROW BOARD IS REQUIRED ON ALL ARTERIAL STREET LANE CLOSURES.
11. A MINIMUM OF 10-FOOT WIDE TRAVEL LANES MUST BE MAINTAINED UNLESS OTHERWISE APPROVED BY THE ENGINEER.
12. TRENCHES MUST BE BACK FILLED OR PLATED DURING NON-WORKING HOURS.
13. THE TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON STATE, COUNTY, TOWNSHIP, OR CITY STREETS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

GENERAL CONSTRUCTION SCHEDULE

1. INSTALL ROCK CONSTRUCTION ENTRANCE, IF REQUIRED.
2. INSTALL TEMPORARY SEDIMENT CONTROL DEVICES, SUCH AS FILTER FABRIC FENCE AND CATCH BASIN INLET PROTECTION, AND RELOCATE TEMPORARY SEDIMENT CONTROL DEVICES AS NECESSARY FOR NEW TOPOGRAPHY AND AS DRAINAGE PATTERNS CHANGE THROUGHOUT CONSTRUCTION.
3. REMOVE AND TEMPORARILY STOCKPILE TOPSOIL OR UNSUITABLE MATERIALS IN THE AREAS DESIGNATED BY THE OWNER.
4. PERFORM SITE GRADING FOR THE PROPOSED IMPROVEMENTS.
5. PERFORM SITE STRUCTURAL CONSTRUCTION FOR THE PROPOSED IMPROVEMENTS.
6. INSTALL CONCRETE SURFACE.
7. INSTALL SITE LIGHTING (BY OTHERS).
8. DECOMPACT ACCESS ROUTES AND STAGING AREAS PRIOR TO PERMANENT STABILIZATION.
9. INSTALL LANDSCAPING (BY OTHERS).
10. PERFORM PERMANENT STABILIZATION FOR ALL VEGETATED AREAS.
11. AFTER THE SITE HAS BEEN PERMANENTLY STABILIZED (I.E. 70% GROWTH OVER VEGETATED AREAS), REMOVE TEMPORARY SEDIMENT CONTROLS.

EARTHWORK NOTES:

1. FINAL GRADES SHALL BE IN ACCORDANCE WITH THE GRADING PLAN. AS-BUILT FINAL GRADE ELEVATIONS MAY DIFFER SLIGHTLY FROM THOSE SHOWN ON THE DESIGN PLANS DUE TO FIELD CONDITIONS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. HOWEVER, THE DESIGN INTENT SHALL STILL BE MET.
2. FROZEN MATERIAL SHALL NOT BE UTILIZED FOR ANY GRADING ACTIVITIES, NOR SHALL CONTROLLED FILL MATERIAL BE PLACED ONTO FROZEN SUBGRADE MATERIAL, INSULATION BLANKETS, STRAW, A SACRIFICIAL SOIL LAYER, OR OTHER MEANS SHALL BE USED TO PROTECT SURFACE OR SUBGRADE MATERIAL WHEN FREEZING TEMPERATURES ARE EXPECTED. ALL FROZEN MATERIAL SHALL BE REMOVED AND DISCARDED PRIOR TO ANY GRADING ACTIVITIES.
3. EXCAVATIONS SHALL BE SLOPED OR BRACED AS REQUIRED BY CURRENT OSHA REGULATIONS TO PROVIDE STABILITY AND SAFE WORKING CONDITIONS. EXCAVATIONS SHALL BE SHORED, SLOPED, OR BENCHED AS REQUIRED, TO MAINTAIN STABILITY OF BOTH THE EXCAVATION SIDES AND BOTTOM. ALL EXCAVATIONS SHALL COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS, INCLUDING THE CURRENT OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) EXCAVATION AND TRENCH SAFETY STANDARDS.

DRAINAGE NOTES:

1. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AND PROPER SOIL EROSION CONTROL MEASURES FOR PROTECTION OF ALL ADJACENT ROADS AND LANDS, PER THESE PLANS.
2. THE CONTRACTOR SHALL CONTROL STORMWATER ON THE SITE AND MINIMIZE EROSION AND TRANSPORTATION OF SEDIMENT-LADEN WATER OFF THE SITE IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES DESIGN DETAILS AND SPECIFICATIONS OUTLINED IN THE CURRENT VERSION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) "RAINWATER AND LAND DEVELOPMENT MANUAL"
3. THE CONTRACTOR SHALL CONTINUALLY CONTROL ALL GROUNDWATER AND/OR SURFACE WATER AS NECESSARY TO PERFORM THE CONSTRUCTION ACTIVITIES. THIS WORK INCLUDES CONSTRUCTING THE NECESSARY TEMPORARY DRAINAGE CHANNELS AND DIVERSIONS, AND FURNISHING, INSTALLING AND OPERATING ALL NECESSARY PUMPS, PIPING AND OTHER APPROPRIATE MEASURES NEEDED TO MAINTAIN THE SITE.
4. ALL PUMP DISCHARGES, NOT INTO AN APPROVED BMP, SHALL BE PROTECTED BY SILT BAGS.

SURVEY NOTES:

1. THE CONTRACTOR SHALL REFERENCE ALL IRON PINS AND MONUMENTS BEFORE EXCAVATING AT OR NEAR SAID IRON PINS OR MONUMENTS. IF ANY PINS OR MONUMENTS ARE DESTROYED OR DAMAGED BY THE CONTRACTOR, THEY SHALL BE ACCURATELY REPLACED BY A REGISTERED SURVEYOR IN THE STATE OF OHIO AT THE COMPLETION OF THE PROJECT, AT CONTRACTOR'S COST.
2. HORIZONTAL AND VERTICAL CONTROL SHALL BE ESTABLISHED BY THE CONTRACTOR FOR THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SURVEYS TO COMPLETE THE PROJECT INCLUDING REESTABLISHMENT OF CONTROL POINTS, PROJECT LAYOUT, AND STAKING OF EASEMENTS.
3. THE CONTRACTOR SHALL SUPPLY THE RESOURCES NECESSARY TO LAY OUT AND VERIFY THE LOCATION, ALIGNMENT, ELEVATION, AND GRADE OF THE WORK AS SHOWN, OR DESCRIBED, IN THE DRAWINGS.
4. ALL WORK SHALL BE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. SURPLUS OR UNSUITABLE MATERIALS SHALL BE PLACED ON-SITE AT LOCATIONS APPROVED BY THE OWNER.

RUNOFF, SEDIMENTATION AND EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT THE DISCRETION OF THE OWNER, ENGINEER, AND CITY ENGINEER.
2. THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL USING BMP INSTALLATION OR CONSTRUCTION SEQUENCING TECHNIQUES AT ALL POINTS WHERE PROJECT WATERS LEAVE THE LIMITS OF THE PROJECT, ALL POINTS WHERE PROJECT WATERS ENTER PORTIONS OF EXISTING UNDERGROUND PIPING, AND AROUND ANY AREA DESIGNATED FOR SOIL STOCKPILING OR MATERIAL STAGING.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE STABILIZATION OF PERMANENT EROSION CONTROLS.
4. SEDIMENT CONTROL STRUCTURES AND SETTLING FACILITIES SHALL BE INSTALLED DURING CONSTRUCTION ACTIVITIES AS SHOWN IN THIS PLAN AND AS NEEDED TO PREVENT THE TRANSPORT OF SEDIMENT LADEN STORMWATER OFF THE SITE. IN ACCORDANCE WITH THE GENERAL CONSTRUCTION SCHEDULE ON THIS SHEET, THE SEDIMENT CONTROL STRUCTURES AND SETTLING FACILITIES SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT AND UNTIL FINAL STABILIZATION IS ACHIEVED. SEDIMENT BASINS/TRAPS AND PERIMETER SEDIMENT CONTROLS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN (7) DAYS FROM THE START OF GRUBBING. UPON COMPLETION OF CONSTRUCTION OF BASINS/TRAPS, SEEDING AND MULCHING SHALL IMMEDIATELY FOLLOW TO AID IN THE STABILIZATION AND MINIMIZE EROSION AND SEDIMENT TRANSPORT OF THE SOIL BEFORE WATER LEAVES THE BASINS/TRAPS. ALL EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED TO FUNCTION UNTIL UPLAND AREAS ARE PERMANENTLY STABILIZED.
5. WHERE NOT OTHERWISE NOTED OR SHOWN, ALL EROSION AND SEDIMENT CONTROL PRACTICES SPECIFIED ON THIS PLAN SHALL CONFORM WITH DETAILS AND SPECIFICATIONS OUTLINED IN THE CURRENT VERSION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR) "RAINWATER AND LAND DEVELOPMENT MANUAL".
6. EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS, CONSTRUCTION PHASING, AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH-MOVING ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST RUNOFF, EROSION, AND SEDIMENT CONTROLS ACCORDINGLY.

INSPECTION & MAINTENANCE NOTES:

1. THE CONTRACTOR WILL BE RESPONSIBLE FOR KEEPING ROADWAYS CLEAN BY REMOVING ALL SOIL FROM THE ROADWAY. TRACKING OF SEDIMENT ONTO ROADWAYS BY VEHICLES SHALL BE MINIMIZED BY UTILIZING A STABILIZED CONSTRUCTION ENTRANCE AS THE ONLY ENTRANCE FOR VEHICLES. THIS ENTRANCE SHALL BE MAINTAINED WITH STONE AS NEEDED TO PREVENT DIRT AND MUD FROM TRACKING ONTO THE ROADWAY.
2. THE CONTRACTOR SHALL INSPECT RUNOFF, EROSION, AND SEDIMENT CONTROLS DURING CONSTRUCTION OPERATIONS, AFTER RAIN EVENTS, AND ON A WEEKLY BASIS TO IDENTIFY MAINTENANCE ITEMS.
3. THE CONTRACTOR SHALL PERFORM PROPER MAINTENANCE AND INSPECTIONS OF RUNOFF, SEDIMENTATION AND EROSION CONTROLS PER THE PROCEDURES AND FREQUENCY OUTLINED ON THIS SHEET. REGULAR INSPECTIONS AND MAINTENANCE BY THE CONTRACTOR SHALL BE PROVIDED FOR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTION ACTIVITIES SHALL BE KEPT ON-SITE THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE AT A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24-HOUR PERIOD. PROVIDE NAME OF INSPECTOR, DATE OF INSPECTION, MAJOR OBSERVATIONS (IDENTIFY TYPE AND LOCATION OF EACH SEPARATE BEST MANAGEMENT PRACTICE (BMP) REQUIRING ATTENTION, DESCRIBE CONDITION OF DAMAGED BMP, SPECIFY TYPE OF REMEDIAL ACTION REQUIRED, ETC.), AND SPECIFIC CORRECTIVE MEASURES TAKEN SINCE THE TIME OF THE PREVIOUS INSPECTION TO ACHIEVE COMPLIANCE WITH THE REQUIREMENTS OF THIS PLAN. ALL CORRECTIVE MEASURES SHALL BE MADE TO PROTECT AGAINST FURTHER FAILURES AS SOON AS POSSIBLE.

MAINTENANCE AND/OR REPAIR SHALL OCCUR AS DETAILED BELOW:

CORRECTIVE MEASURES SHALL BE MADE TO PROTECTED AGAINST FURTHER FAILURE AS SOON AS POSSIBLE.

- a. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE, IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT BASIN, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE (3) DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN TEN (10) DAYS OF THE INSPECTION.
 - b. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION, IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THIS PLAN MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN TEN (TEN) DAYS OF THE INSPECTION.
 - c. WHEN PRACTICES DEPICTED ON THIS PLAN ARE NOT INSTALLED, IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE, THE CONTROL PRACTICE MUST BE IMPLEMENTED WITHIN TEN (10) 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.
5. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM ALL CONTROLS BEFORE SEDIMENT OVERTOPS THE BARRIER. IT SHOULD TYPICALLY BE REMOVED WHEN THE SEDIMENT REACHES ONE-HALF THE BARRIER HEIGHT OR WHEN IT CAUSES THE BARRIER TO BULGE.
 6. SEEDED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE SITE REACHES FINAL STABILIZATION. FINAL STABILIZATION MEANS THE VEGETATION HAS ESTABLISHED UNIFORM PERENNIAL VEGETATIVE COVER (E.G., EVENLY DISTRIBUTED, WITHOUT LARGE BARE AREAS) WITH A DENSITY OF AT LEAST 70 PERCENT GRASS COVER FOR A PERIOD OF 1 YEAR FROM THE TIME OF PLANTING. ONCE FINAL STABILIZATION HAS BEEN ACHIEVED, THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES.

STORMWATER MANAGEMENT:

STORMWATER MANAGEMENT OF THE PROPOSED PLATFORM TENNIS COURTS AND AQUATICS AREA AND SITE REDEVELOPMENT HAS BEEN EVALUATED AS ONE COMPLETE PROJECT IN TERMS OF CUMULATIVE EFFECTS RATHER THAN TWO SEPARATE PROJECTS. THE EXISTING STORMWATER NETWORK CONSISTS OF MULTIPLE PRIVATE AND PUBLIC CATCH BASIN INLETS AND STORM SEWERS WHICH ALL ROUTE TO AN EXISTING STRUCTURE EAST OF MUIRFIELD DRIVE APPROXIMATELY 315 FEET EAST OF THE PROJECT (DUBSCOVERY FACILITY ID 11213, 73-002-CIP). AS SUCH, BOTH THE PLATFORM TENNIS COURTS AND AQUATICS AREA ARE LOCATED WITHIN THE SAME TRIBUTARY AREA AND HAVE BEEN EVALUATED ACCORDINGLY.

THE PROJECT PROPOSES AN UNCOMPACTED ODOT NO. 57 GRAVEL LAYER BENEATH THE PLATFORM TENNIS COURTS. THE UNCOMPACTED GRAVEL LAYER WILL PROVIDE STORAGE DURING THE INITIAL STAGES OF A PRECIPITATION EVENT AND FOR THAT REASON WE HAVE ASSUMED THIS MATERIAL TO BE MORE PERVIOUS THAN A TRADITIONAL COMPACTED GRAVEL ROAD LAYER. ADDITIONALLY, THE PROJECT PROPOSES TO RESTORE 6,603 SQUARE FEET OF EXISTING ASPHALT TO VEGETATION COVER. THE CONVERTED AREA INCLUDES THE TENNIS PARKING LOT AND AN ELIMINATED ASPHALT PATH EAST OF THE AQUATICS AREA. THESE DESIGN MEASURES RESULT IN A CUMULATIVE NET DECREASE OF 640 SQUARE FEET OF IMPERVIOUS AREA FOR THE PROJECT.

A FEASIBILITY ASSESSMENT WAS PERFORMED PER TABLE 2-3 AND TABLE D-2 OF THE STORMWATER MANAGEMENT DESIGN MANUAL. THE USE OF A POROUS NO. 57 GRAVEL LAYER BENEATH THE PLATFORM TENNIS COURTS HAS BEEN SPECIFIED TO PROVIDE BOTH STORAGE AND FILTRATION TO ADDRESS WATER QUANTITY AND IMPROVE WATER QUALITY WHEN COMPARED TO AN ALTERNATIVE DESIGN OF ASPHALT BASE BELOW THE COURTS.

ADDITIONAL DESIGN, TREATMENT AND CONTROL MEASURES WERE DETERMINED TO BE INFEASIBLE BASED ON REASONING ALLOWED IN APPENDIX D, TABLE D-3 OF THE STORMWATER MANAGEMENT DESIGN MANUAL, E.G., SITE RE-GRADING TO THE POINT OF PERMANENT INTERFERENCE WITH THE EXISTING USE OF THE SITE, MECHANICAL ROUTING OF STORMWATER, AND REMOVAL OF MATURE TREES.



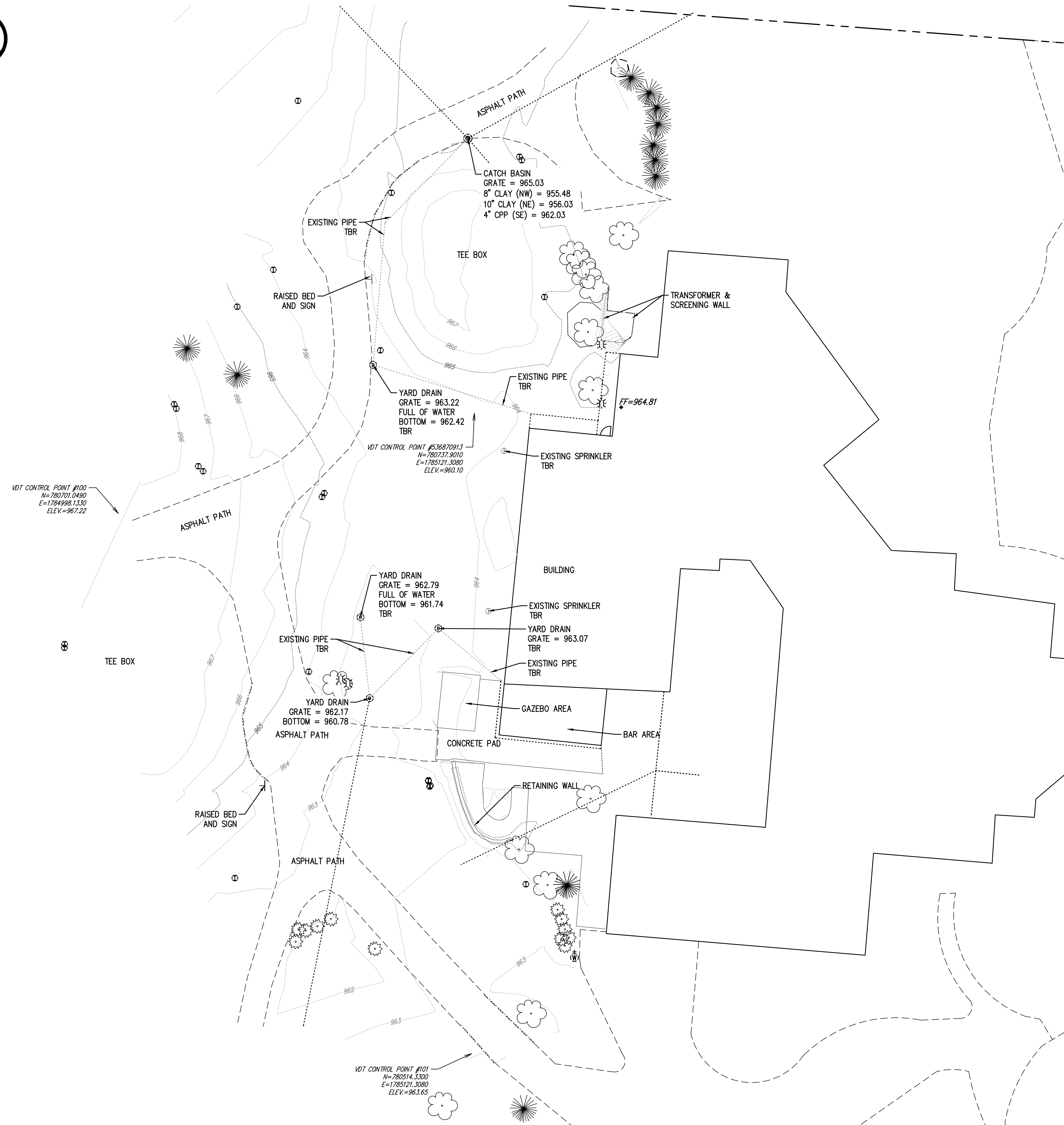
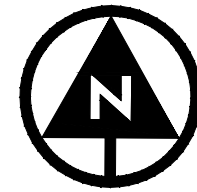
6397 EMERALD PKWY, SUITE 200
DUBLIN, OH 43016
TEL 614.793.8777
FAX 614.360.0023

DESIGNED BY: EIK	DRAWN BY: JPK	CHECKED BY: EIK	PROJECT NO.: 18164
CHND BY: DATE			
REVISION			
No			

PRIVATE SITE IMPROVEMENT PLAN FOR
THE COUNTRY CLUB AT MUIRFIELD VILLAGE
PHASE IV SITE IMPROVEMENT
THE WEST VERANA
FRANKLIN COUNTY, DUBLIN, OHIO
GENERAL NOTES

APPLICATION NO.	
DATE:	08/09/2023
SCALE:	
SHEET:	C3.0

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SURVEYOR NOTES:
 THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED TO THE SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES.

DATE OF FIELD WORK: 06/20/2023
 EVERY DOCUMENT OF RECORD REVIEWED AND CONSIDERED AS A PART OF THIS SURVEY IS NOTED HEREON.

SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.

BASIS OF BEARINGS:
 THE BEARINGS SHOWN HEREIN ARE BASED ON OHIO STATE PLANE COORDINATE SYSTEM. NORTH SYSTEM, NAD83, GEOID12A.

CONTROL & BENCHMARKS:
 AS PER THE TOPOGRAPHIC SURVEY PERPARED BY VERDANTAS, THE CONTRACTOR AND/OR HIS SURVEYOR SHALL BE RESPONSIBLE TO CROSS CHECK ALL CONTROL POINTS FOR DISTURBANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

BASIS OF BEARING: TRUE NORTH, BASED ON OBSERVATIONS, GPS DATA COLLECTED WITH TRIMBLE R8 UNIT VRS CORRECTION ON OHIO STATE PLANE SOUTH ZONE COORDINATE SYSTEM, NAD 1983, NAVD 1988, GEOID 12A.

POINT #	NORTHING	EASTING	ELEVATION
100	780701.0490	1784998.1330	967.02
101	780514.3300	1785121.3080	963.65
536870913	780737.9010	1785121.3080	960.10

FIRM COMMUNITY PANEL No.: 39049C0019K
 FLOOD ZONE: X
 EFFECTIVE DATE: 06/17/2008

LEGEND

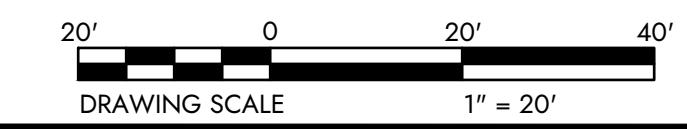
- | | | |
|-----------------------|-----------------------|-----------------------|
| AC UNIT | POWER/TELEPHONE POLE | DRILL HOLE FND. |
| CABLE TV PEDESTAL | SANITARY CLEANOUT | GOV. DISK FND. |
| CATCH BASIN | SANITARY MANHOLE | I.P.F. IRON PIN FND. |
| CURB INLET | SIGN | I.P.S. IRON PIN SET |
| ELECTRIC BOX | STORM MANHOLE | R.F. IRON PIPE FND. |
| ELECTRIC METER | TELEPHONE MANHOLE | R.S. IRON PIPE SET |
| FIRE DEPT. CONNECTION | TELEPHONE PEDESTAL | M.N.F. MAG NAIL FND. |
| FIRE HYDRANT | TELEPHONE POLE | CONC. MON. FND. |
| GAS LINE MARKER | WATER METER | MON. BOX FND. |
| GAS METER | WATER VALVE (MAIN) | MINE SPIKE FND. |
| GAS VALVE (MAIN) | WATER VALVE (SERVICE) | P.K.F. P.K. NAIL FND. |
| GAS VALVE (SERVICE) | TEL UTILITY MARKER | P.K.S. P.K. NAIL SET |
| GUY WIRE | WYE POLE | RR SPIKE FND. |
| LIGHT POLE | YARD DRAIN | SECTION COR. FND. |
| POWER POLE | YARD LIGHT | STONE FND. |
| POWER/LIGHT POLE | SPRINKLER HEAD | T.B.F. T-BAR FND. |
| | | MONITORING WELL |

- | | |
|-----------------------------|--|
| -CATV- UGND. CABLE | -ExA- EX. AERIAL ESMT. |
| -T- UGND. COMMUN. | -ExCh- EX. CHANNEL ESMT. |
| -E- UGND. ELECTRIC | -ExC- EX. CONSERVATION ESMT. |
| -FO- UGND. FIBER OPTIC | -ExDr- EX. DRAINAGE ESMT. |
| -G- UGND. GAS | -ExFL- EX. FLOWAGE ESMT. |
| -SAN- UGND. SANITARY SEWER | -ExLA- EX. LIMITED ACCESS ESMT. |
| -SS- UGND. SANITARY SERVICE | -ExRR- EX. RAILROAD ESMT. |
| UGND. STORM SEWER | -ExSH- EX. STD. HIGHWAY ESMT. |
| -W- UGND. WATER | -ExSL- EX. SLOPE ESMT. |
| -WS- UGND. WATER SERVICE | -ExU- EX. UTILITY ESMT. |
| -OH- OVERHEAD LINES | -R/W- EX. RIGHT-OF-WAY |
| -X- FENCE | -LA-R/W- EX. LIMITED ACCESS RIGHT-OF-WAY |
| -P- PROPERTY LINE | |

DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT NO.:
EJK	JRW	EJK	18164

PRIVATE SITE IMPROVEMENT PLAN FOR
 THE COUNTRY CLUB AT MUIRFIELD VILLAGE
 PHASE IV SITE IMPROVEMENT
 THE WEST VERANA
 FRANKLIN COUNTY, DUBLIN, OHIO
 EXISTING CONDITIONS

APPLICATION NO.	
DATE:	08/09/2023
SCALE:	1"=20'
SHEET:	C4.0



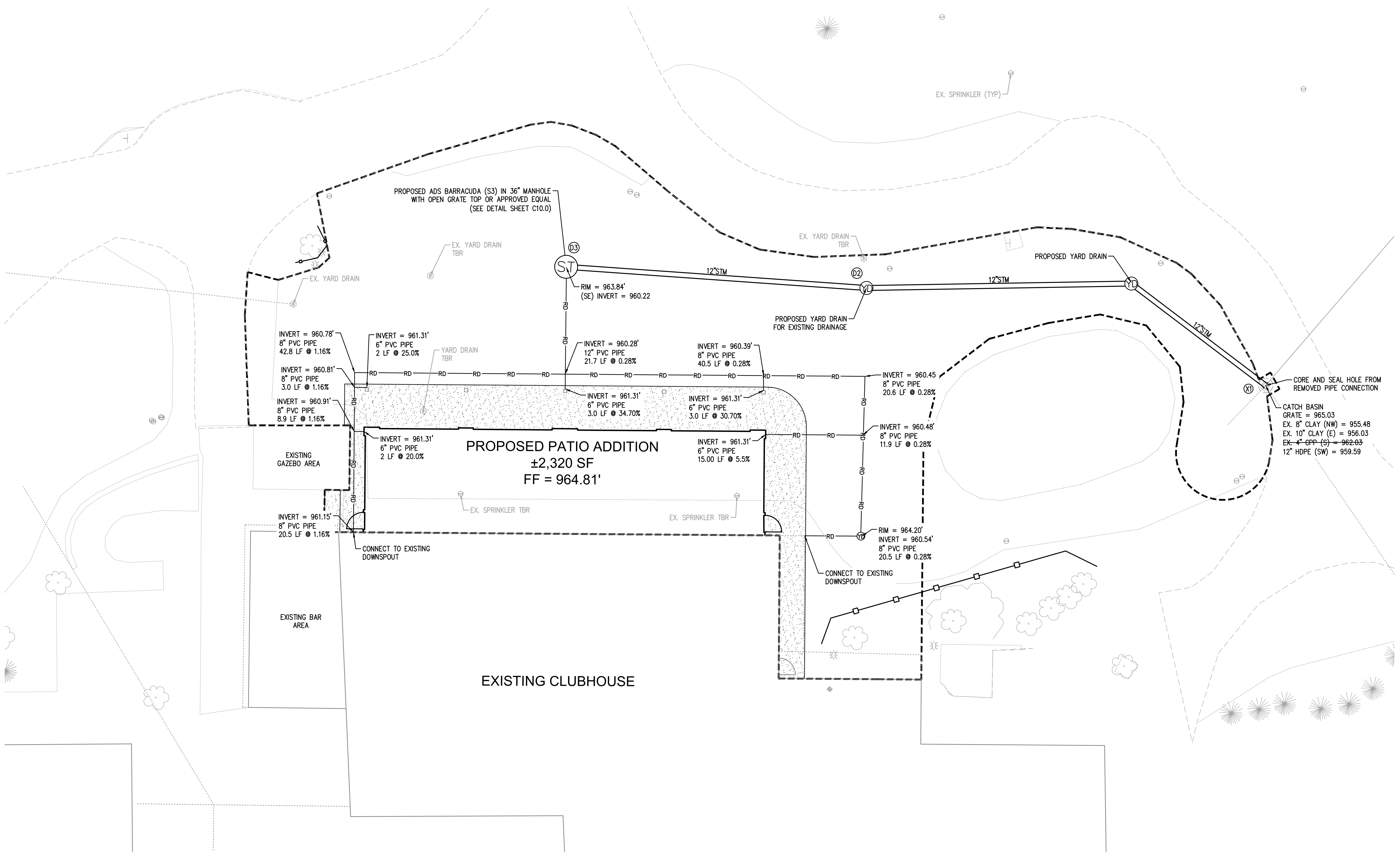
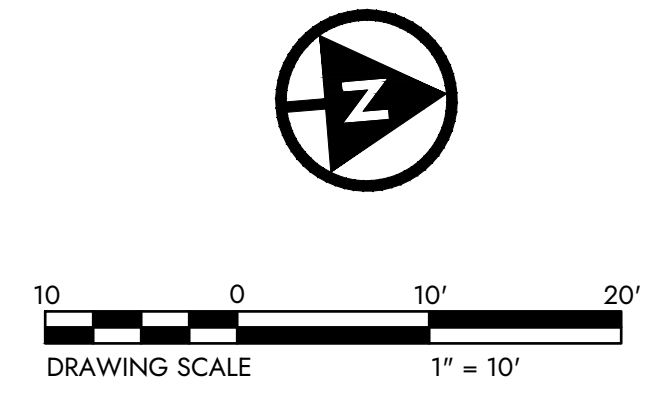
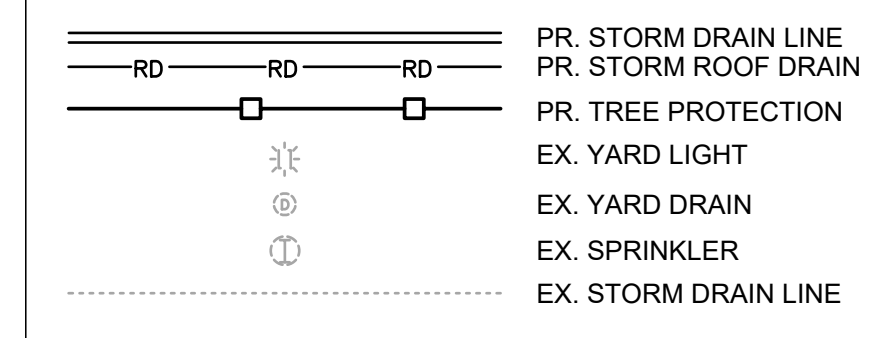
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NOTES:

1. ALL CONNECTIONS TO EXISTING PUBLIC INFRASTRUCTURE SHALL BE CORE DRILLED.
2. ALL CONNECTIONS TO EXISTING UTILITIES REQUIRE CITY OF DUBLIN INSPECTION.
3. CONTRACTOR TO CORE & SEAL STRUCTURE CONNECTIONS FROM REMOVED EXISTING STORM PIPE.

LEGEND

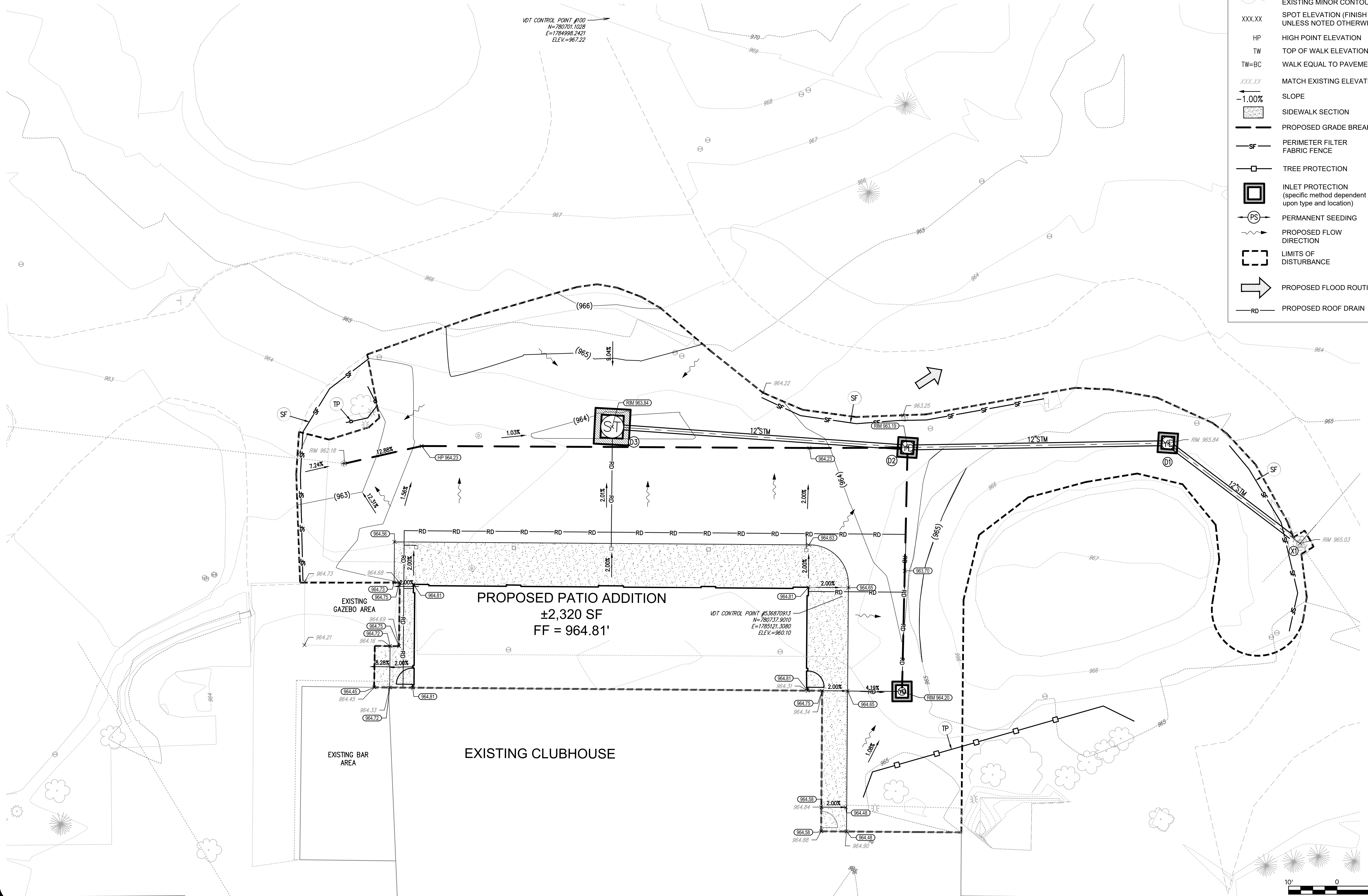
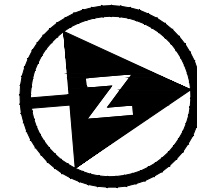


CHK'D BY	DATE	REVISION	No.

DESIGNED BY: EIK
 DRAWN BY: JPK
 CHECKED BY: EIK
 PROJECT NO.: 18164

APPLICATION NO.
 DATE: 08/09/2023
 SCALE: 1"=10'
 SHEET: C6.0

PRIVATE SITE IMPROVEMENT PLAN FOR
 THE COUNTRY CLUB AT MUIRFIELD VILLAGE
 PHASE IV SITE IMPROVEMENT
 THE WEST VERANA
 FRANKLIN COUNTY, DUBLIN, OHIO
 UTILITY PLAN



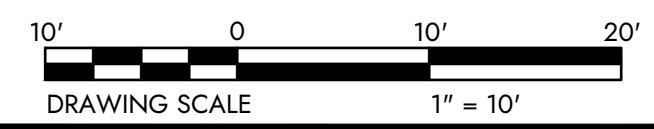
LEGEND	
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
XXX.XX	SPOT ELEVATION (FINISH PAVEMENT UNLESS NOTED OTHERWISE)
HP	HIGH POINT ELEVATION
TW	TOP OF WALK ELEVATION
TW=BC	WALK EQUAL TO PAVEMENT
XXXX.XX	MATCH EXISTING ELEVATION
-1.00%	SLOPE
	SIDEWALK SECTION
	PROPOSED GRADE BREAK
	PERIMETER FILTER FABRIC FENCE
	TREE PROTECTION
	INLET PROTECTION (specific method dependent upon type and location)
	PERMANENT SEEDING
	PROPOSED FLOW DIRECTION
	LIMITS OF DISTURBANCE
	PROPOSED FLOOD ROUTING
	PROPOSED ROOF DRAIN

DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT NO.:
EJK	JPK	EJK	18164

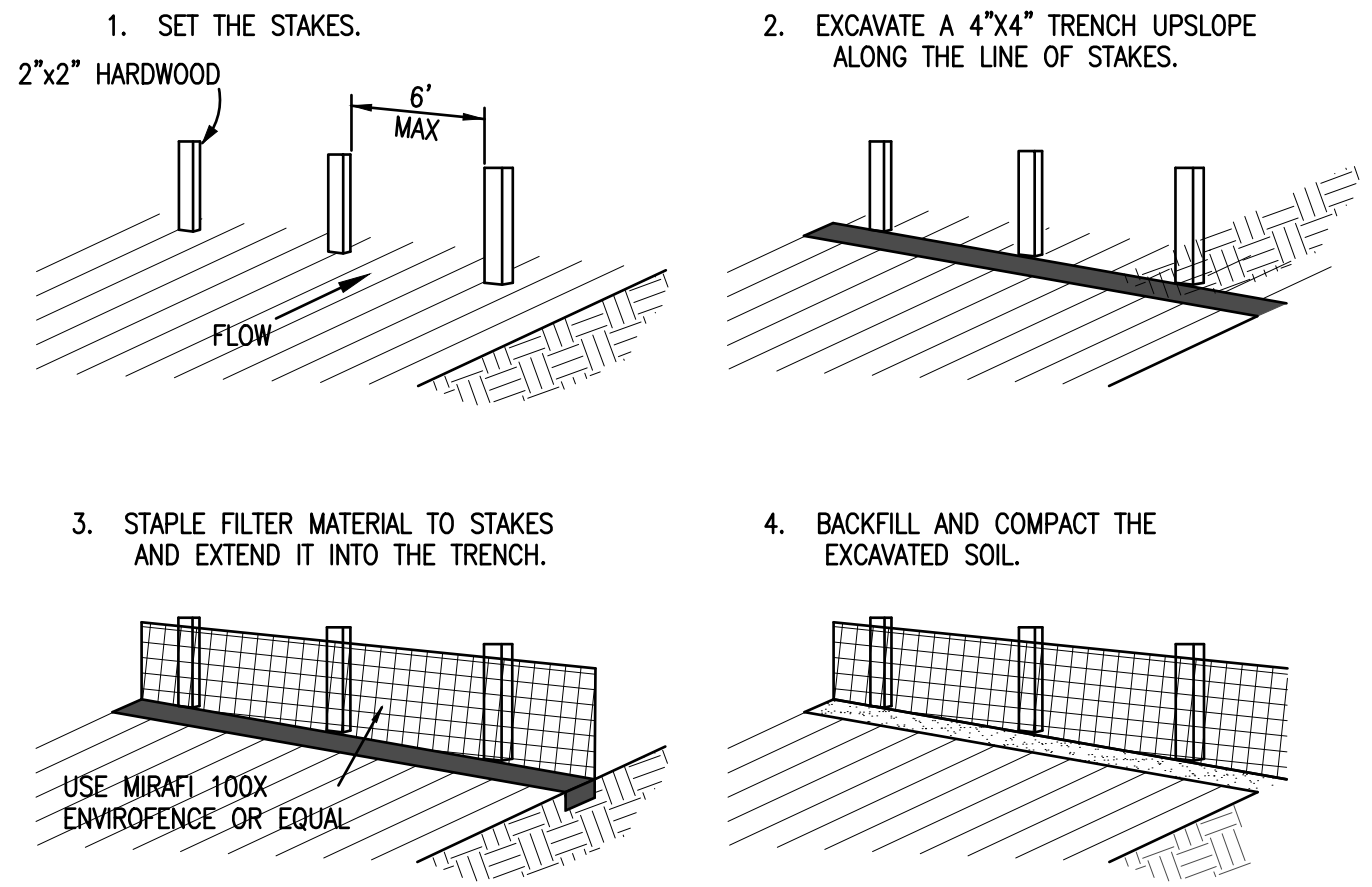
CHK'D BY:	DATE:	REVISION:	No.:

PRIVATE SITE IMPROVEMENT PLAN FOR
THE COUNTRY CLUB AT MUIRFIELD VILLAGE
PHASE IV SITE IMPROVEMENT
THE WEST VERANA
FRANKLIN COUNTY, DUBLIN, OHIO
GRADING PLAN

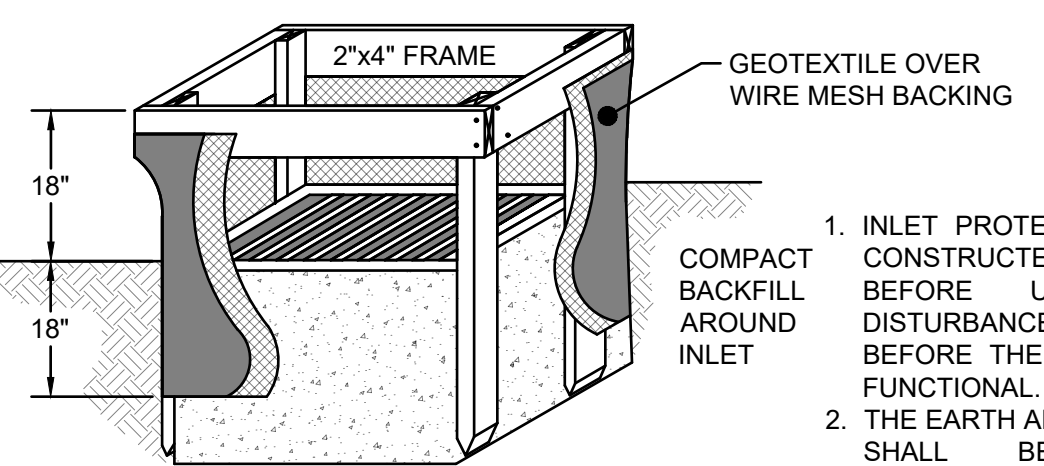
APPLICATION NO.:	
DATE:	08/09/2023
SCALE:	1"=10'
SHEET:	C7.0



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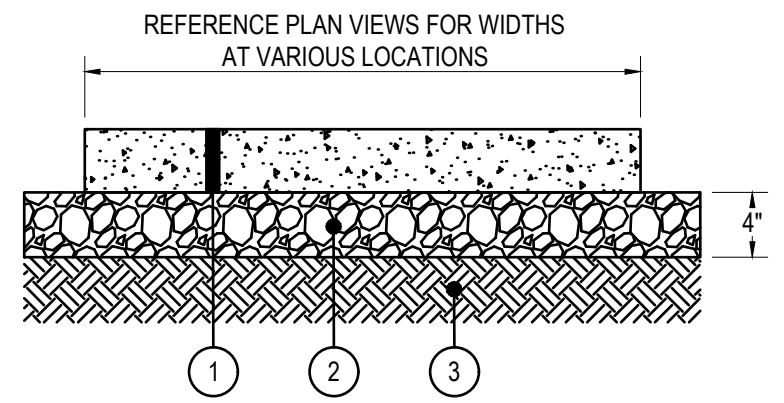


SF PERIMETER FILTER FABRIC FENCE
NOT TO SCALE



1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE INLET BECOMES FUNCTIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-INCH BY 4-INCH CONSTRUCTION GRADE LUMBER. THE 2-INCH BY 4-INCH POSTS SHALL BE DRIVEN ONE (1) FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-INCH BY 4-INCH FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WILL POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE MATERIAL SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-INCH LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
7. A COMPACTED EARTH DIKE OR CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION. THE TOP OF THE DIKE SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

IP GEOTEXTILE INLET PROTECTION
FOR USE OUTSIDE OF PAVEMENT (Rainwater and Land Development rev.6-24-09)



1. ITEM 608 - 4" CONCRETE WALK, CLASS QC1
2. ITEM 304 - 6" CRUSHED AGGREGATE BASE
3. ITEM 204 - SUBGRADE COMPACTION

P1 CONCRETE SIDEWALK SECTION
NOT TO SCALE

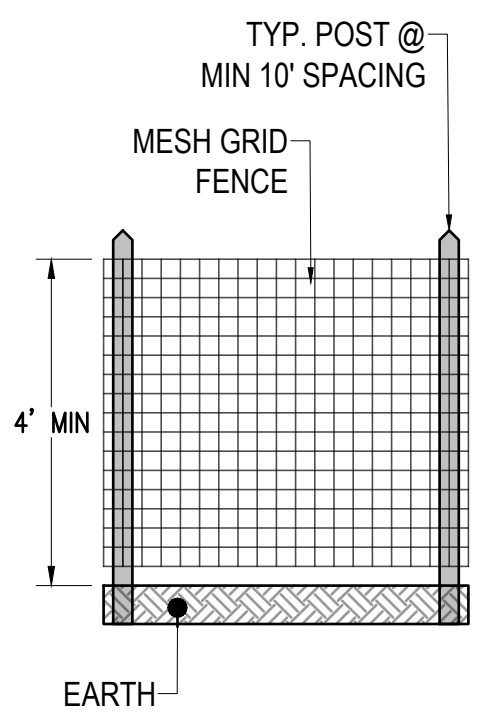
SEEDING DATES	SPECIES	Lb. / 1000 ft ²	Lb. / Acre
March 1 to August 15	Oats	3	128 (4 bushel)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Perennial Ryegrass	1	40
	Tall Fescue	1	40
	Annual Ryegrass	1	40
August 16 to November	Annual Ryegrass	1.25	55
	Perennial Ryegrass	3.25	142
	Creeping Red Fescue	0.4	17
	Kentucky Bluegrass	0.4	17
	Oats	3	128 (3 bushel)
	Tall Fescue	1	40
November 1 to Feb. 29	annual ryegrass	1	40
	Rye	3	112 (2 bushel)
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Wheat	3	120 (2 bushel)
	Tall Fescue	1	40
November 1 to Feb. 29	Annual Ryegrass	1	40
	Perennial Rye	1	40
	Tall Fescue	1	40
	Annual Ryegrass	1	40
	Perennial Ryegrass	1.25	40
	Creeping Red Fescue	0.4	40
November 1 to Feb. 29	Kentucky Bluegrass	0.4	40
	Use mulch only or dormant seeding.		

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

MULCHING TEMPORARY SEEDING:

1. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH, WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES ON FAVORABLE, VERY FLAT SOIL CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION. TEMPORARY VEGETATION OR MULCHING SHALL BE EMPLOYED TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT. THESE MEASURES SHALL BE INSTALLED WITHIN 48 HOURS OF INITIAL DISTURBANCE. CRITICAL AREAS, AS THEY PERTAIN TO EROSION CONTROL MEASURES, ARE DEFINED IN APPENDIX XIV BY THE LICKING COUNTY ENGINEER OR LICKING COUNTY SOIL AND WATER CONSERVATION SERVICE.
2. MATERIALS:
 - HYDROSEEDERS-IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2000 LBS./ AC. OR 46 LB./ 1,000-SQ.-FT.
3. MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS:
 - WOOD-CELLULOSE FIBER-WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WT. OF 750 LB./AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. / 100 GAL.

TS TEMPORARY SEEDING



- NOTES:
1. FENCING SHALL BE HIGH VIABILITY EXTRUDED POLYMERIC MESH GRID FENCING.
 2. POSTS SHALL BE WOOD, PLASTIC, OR METAL POSTS.
 3. FASTEN FENCING TO POST USING ZIP OR WIRE TIES.
 4. FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION.

TP TREE PROTECTION FENCE
Scale: NTS

1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.
2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDDED WITHIN 48 HOURS AFTER GRADING.
3. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
4. SOIL AMENDMENTS-TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME AND FERTILIZER SHALL BE USED.
5. SEEDING METHOD-SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

SEED MIX	SEEDING RATE		NOTES:
	LBS. / AC	LBS. / 1,000 SF.	
GENERAL USE			
Creeping Red Fescue	20-40	1/2 - 1	FOR CLOSE MOWING & WATERWAYS W/ <2 FT/SEC
Domestic Ryegrass	10-20	1/4 - 1/2	
Kentucky Bluegrass	20-40	1/2 - 1	
Tall Fescue	40-50	1 - 1 1/2	
Turf-type (dwarf) Fescue	90	2 1/2	
STEEP BANKS OR CUT SLOPES			
Tall Fescue	40-50	1 - 1 1/2	
Tall Fescue	20-30	1/2 - 3/4	Do not seed later than August
Flat Pea	20-25	1/2 - 3/4	Do not seed later than August
Tall Fescue	20-30	1/2 - 3/4	
ROAD DITCHES AND SWALES			
Tall Fescue	40-50	1 - 1 1/2	
Turf-type (dwarf) Fescue	90	2 1/2	
Kentucky Bluegrass	5	0.1	
LAWNS			
Kentucky Bluegrass	100-120	2	
Perennial Ryegrass	100-120	2	
Creeping Red Fescue	100-120	2	For shaded areas.

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

- SITE PREPARATION:**
1. 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.
 2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
 3. TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

- SEEDBED PREPARATION:**
1. 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.
 2. 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.

3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

SEEDING DATES AND SOIL CONDITIONS:

1. 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.
2. PERMANENT VEGETATION AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICAL BUT NO LATER THAN 48 HOURS AFTER FINAL GRADING. THIS INCLUDES SOD OR OTHER METHODS OF RETAINING SEEDING MATERIAL PRIOR TO MATURATION IN THE LOWER 1/2 OF ANY DRAINAGE DITCHES.
3. LAND WHICH HAS BEEN CLEARED FOR DEVELOPMENT, AND UPON WHICH CONSTRUCTION HAS NOT COMMENCED WITHIN FOURTEEN (14) DAYS OF THIS INITIAL CLEARING SHALL BE PROTECTED FROM EROSION AND CONSEQUENT SEDIMENTATION BY APPROPRIATE VEGETATION AND LAND COVERING TECHNIQUES SUCH AS SEEDING, SODDING, MULCHING GROUND COVER INSTALLATION OR OTHER VEGETATION OR EARTH COVERING TECHNIQUES.

DORMANT SEEDINGS:

1. 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.
2. THE FOLLOWING METHODS MAY BE USED FOR DORMANT SEEDING:
 - FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR. AFTER NOVEMBER 20, AND BEFORE MARCH 15, BROADCAST THE SELECTED SEED MIXTURE. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
 - FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING.
 - APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO-SEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED.
 - WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHERE FEASIBLE.

MULCHING:

1. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. DORMANT SEEDING SHALL BE HYDROSEEDED. 100% OF THE GROUND SURFACE SHALL BE COVERED WITH AN APPROVED MATERIAL.
2. MATERIALS:
 - HYDROSEEDERS-IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE APPLIED AT 2,000 LB./AC. OR 46 LB./1,000 SQ. FT.
 - OTHER-OTHER ACCEPTABLE MULCHES INCLUDE ROLLED EROSION CONTROL MATTINGS OR BLANKETS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS PER ACRE.
3. MULCH ANCHORING METHODS:
 - MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.
 - 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.

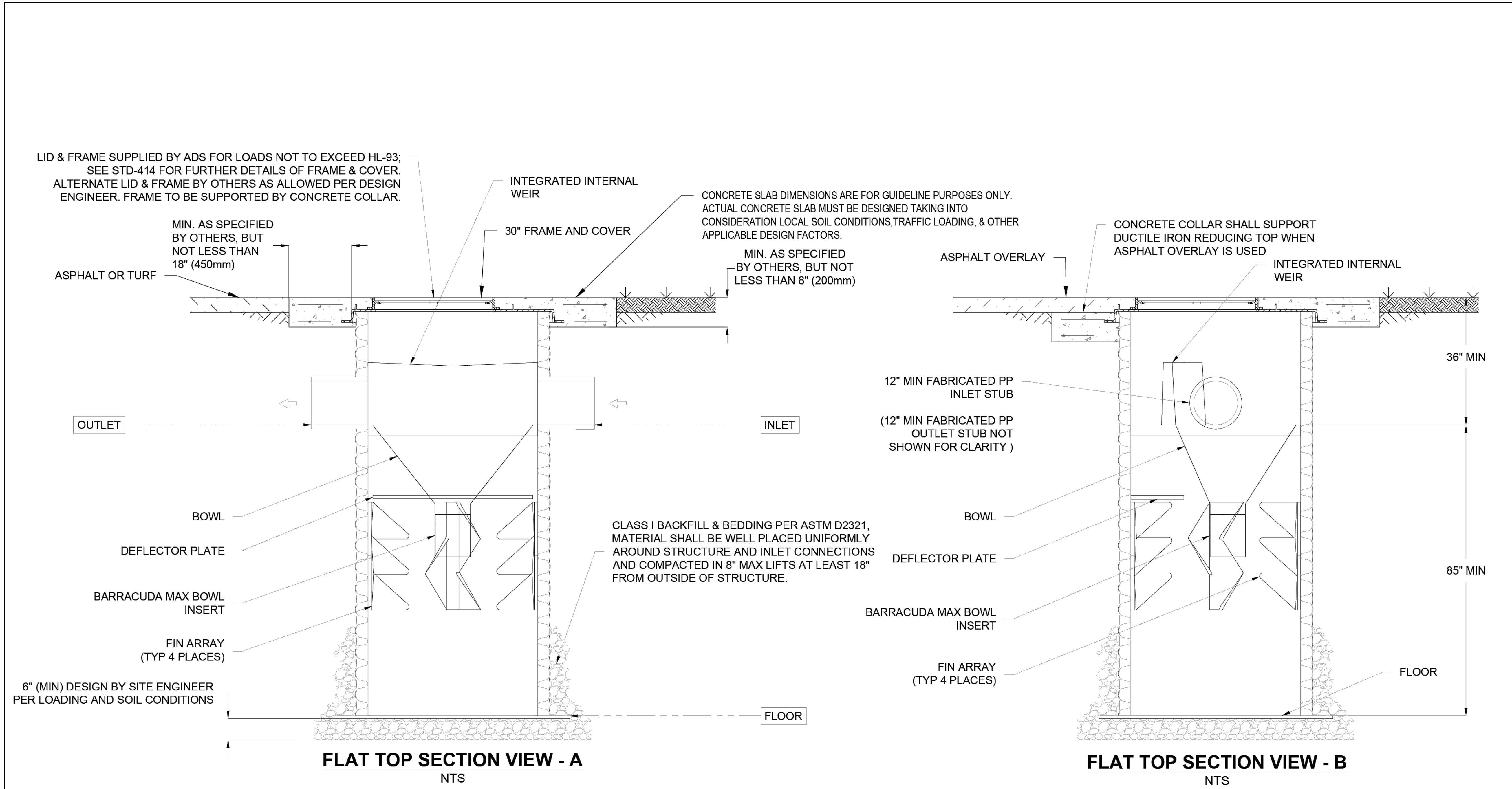
PS PERMANENT SEEDING

DESIGNED BY: EIK	DRAWN BY: PKW	CHECKED BY: EIK	PROJECT NO.: 18164
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CHND BY DATE	REVISION
No.	

PRIVATE SITE IMPROVEMENT PLAN FOR
THE COUNTRY CLUB AT MUIRFIELD VILLAGE
PHASE IV SITE IMPROVEMENT
THE WEST VERANA
FRANKLIN COUNTY, DUBLIN, OHIO
TYPICAL DETAILS

APPLICATION NO.
DATE: 08/09/2023
SCALE: 1"=10'
SHEET: C9.0



ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

STANDARD DETAIL
BARRACUDA MAX
FLAT TOP INSTALLATION
DRAWING NUMBER STD-520

ADS 4640 TRUEMAN BLVD
HILLIARD, OH 43026

DRAWN BY: NMH
DATE: 9/13/22
OK'S BY:
SCALE: NTS
SHEET: 1 OF 1

DESIGNED BY: EIK	DRAWN BY: JRW	CHECKED BY: EIK	PROJECT NO. 18164
CHK'D BY: DATE			
REVISION			
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PRIVATE SITE IMPROVEMENT PLAN FOR
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DATE: 08/09/2023
SCALE: 1"=10'
SHEET: C10.0