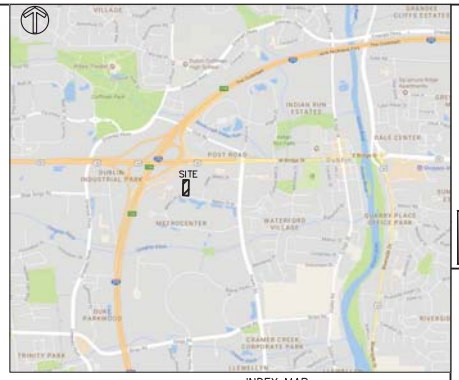
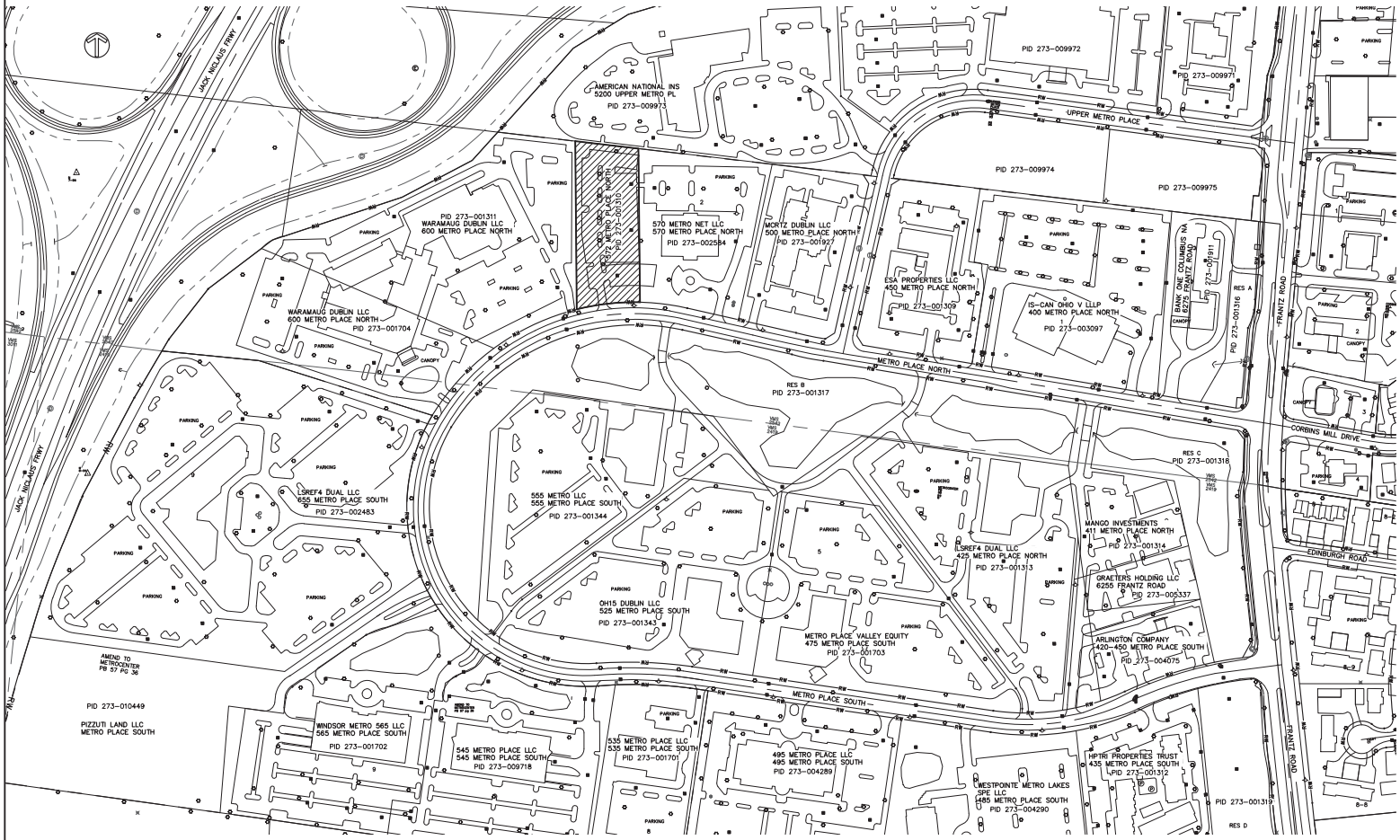
DUBLIN METRO DENTAL
572 METRO PLACE NORTH
DUBLIN, OHIO
FINAL DEVELOPMENT PLAN



INDEX MAP
N.T.S.



VICINITY MAP
SCALE: 1"=150'

SHEET INDEX

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C1.0	VICINITY MAP
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C3.0	DEVELOPMENT PLAN
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C6.0	GRADING PLAN
C7.0	LANSCAPE PLAN
C8.0	SIGN PLAN
C9.0	GENERAL NOTES
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C10.1	STORM PROFILES
C10.2	STORM DETAILS
C10.3	STORM DETAILS
C10.4	STORM WATER MANAGEMENT MAP
ES1.1	SITE ELECTRICAL PLAN
A1.1	ARCHITECTURAL FLOOR PLAN
A1.3	ARCHITECTURAL ROOF PLAN
A2.1	ARCHITECTURAL ELEVATIONS

Engineers Architects
5500 Shawn Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7593

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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

VICINITY MAP

STATE OF OHIO
JOHN P. EVANS
REGISTERED
PROFESSIONAL ENGINEER

Drawn : JPE
Checked : SS
Date : 9.20.2017

Scale : As Noted
Project : 16752
Cadd File : Final Development

Sheet No.
C1.0

BOUNDARY SURVEY & TOPO FOR A 1.670 ACRE TRACT

SITUATE IN THE STATE OF OHIO, COUNTY OF FRANKLIN, CITY OF DUBLIN, BEING PART LOT 2 OF "METROCENTER AS THE PLAT OF SAME IS OF RECORD IN PLAT BOOK 55, PAGES 8 AND 9 AS BEING CONVEYED TO 570 METRO NET SMART, LLC IN INSTRUMENT NO.201206260091180, ALL RECORDS REFERENCED IN THE RECORDER'S OFFICE, FRANKLINCOUNTY, OHIO

P.N. 273-001310-00

BASIS OF BEARINGS

NORTH LINE OF LOT 2 BEING S83° 15'23"E AND WAS DETERMINED THROUGH G.P.S. OBSERVATION UTILIZING THE O.D.O.T V.R.S NETWORK (NAD83) AND SHOULD BE USED TO DENOTE ANGLES ONLY.

REFERENCE:

DEED AS NOTED
COUNTY MAPS
METROCENTER PLAT IN P.B.55, PG.8
PREVIOUS SUVEY BY B.D.& M.
DATED FEB. 28, 1996.

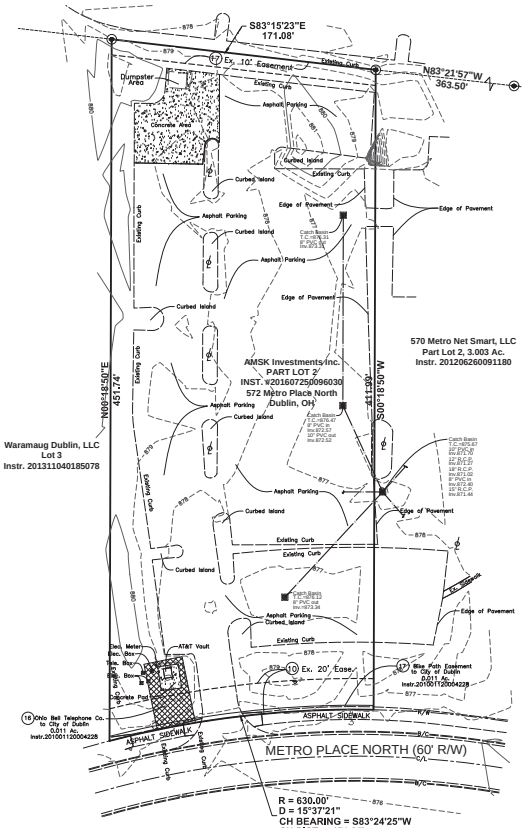
FLOOD ZONE DESIGNATION:

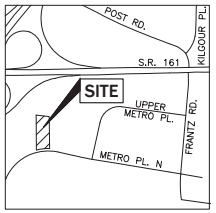
According to the Federal Emergency Management Agency's Flood Insurance Map (dated JUNE 18th, 2010), the subject parcel shown hereon lies within Zone "X" (area determined to be outside 500-year flood plain), Community Panel No. 39097C0100D.

ALL REBARS SET ARE 5/8" X 30" W/YELLOW CAP STAMPED ACKISON SURVEYING

REQUESTED EASEMENTS

(10) Reservations, restrictions, convenants, limitaions, easements, and/or other conditions as shown on recorded plat P.B.55, Pages 8-9. (as shown)
(11) Reservations, restrictions, convenants, limitaions, easements, assessments, and/or other conditions recorded in D.B.3719, Page 656. (blanket)
(12) Reservations, restrictions, convenants, limitaions, easements, assessments, and/or other conditions of record in D.B.3719, Page 323. (not applicable)
(13) Easement granted to Columbia Gas of Ohio, Inc. in O.R.2929, Page E08. (not available)
(14) Easement granted to the Village of Dublin, Ohio in D.B.3511, Page 27. (Not Applicable)
(15) Easement granted to The Ohio Bell Telephone Company in D.B. 3005, Page 126. (Not Applicable)
(16) Easement granted to Ohio Bell Telephone Company in Instrument 199808110113899. (as shown)
(17) Easement Agreement granted to the City of Dublin in Instrument 201001120004228. (as shown)
(18) Minerals of whatsoever kind, subsurface and surface substances, including but not limited to coal, lignite, oil, gas, uranium, clay, rock, sand and gravel in, on, under and that may be produced from the Land, together with all rights, privileges,and immunities relating thereto, whether or not appearing in the Public Records. The Company makes no representation as to the present ownership of any such interest. There may be leases, grants, exceptions or reservations on interests that are not listed. (blanket)





VICINITY MAP
(NOT TO SCALE)

LEGEND

- Catch Basin
- Rebar Set
- Iron Pin Found
- Mag Nail Fnd.
- Mag Nail Set
- Monument Found
- Light Pole
- Sanitary Manhole
- Storm Manhole
- Telephone Manhole
- Power Pole
- Tick
- Pole Anchor
- Traffic Pole
- Phone Vault
- Gas Valve
- Water Meter
- Electric Meter
- Curb Inlet
- Clean Out
- Water Valve
- (D) Deed
- (M) Measure
- Post
- Fire Hydrant
- Sign
- ADA Parking Spot
- Pedestal
- Ballard
- Flood Light

STATE OF OHIO
Steven B. Walton
S-7675
REGISTERED
PROFESSIONAL SURVEYOR

STEVE B. WALTON, NO. S-7675 — AUGUST 24, 2016

SCALE: 1" = 40'	JOB #2617
DRAWN BY: KK/JAF	CHECKED BY: SBW
FIELD WORK BY: BK	
DATE: AUGUST 24, 2016	

DATE	REVISION RECORD

ACKISON SURVEYING
13597 LEEPER PERKINS RD.
MARYSVILLE, OH 43040
Office: 614-766-4000
Cell: 614-207-8214
Email: rackison@ackisonsurveying.com

Engineers Architects
5500 Sterns Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7503

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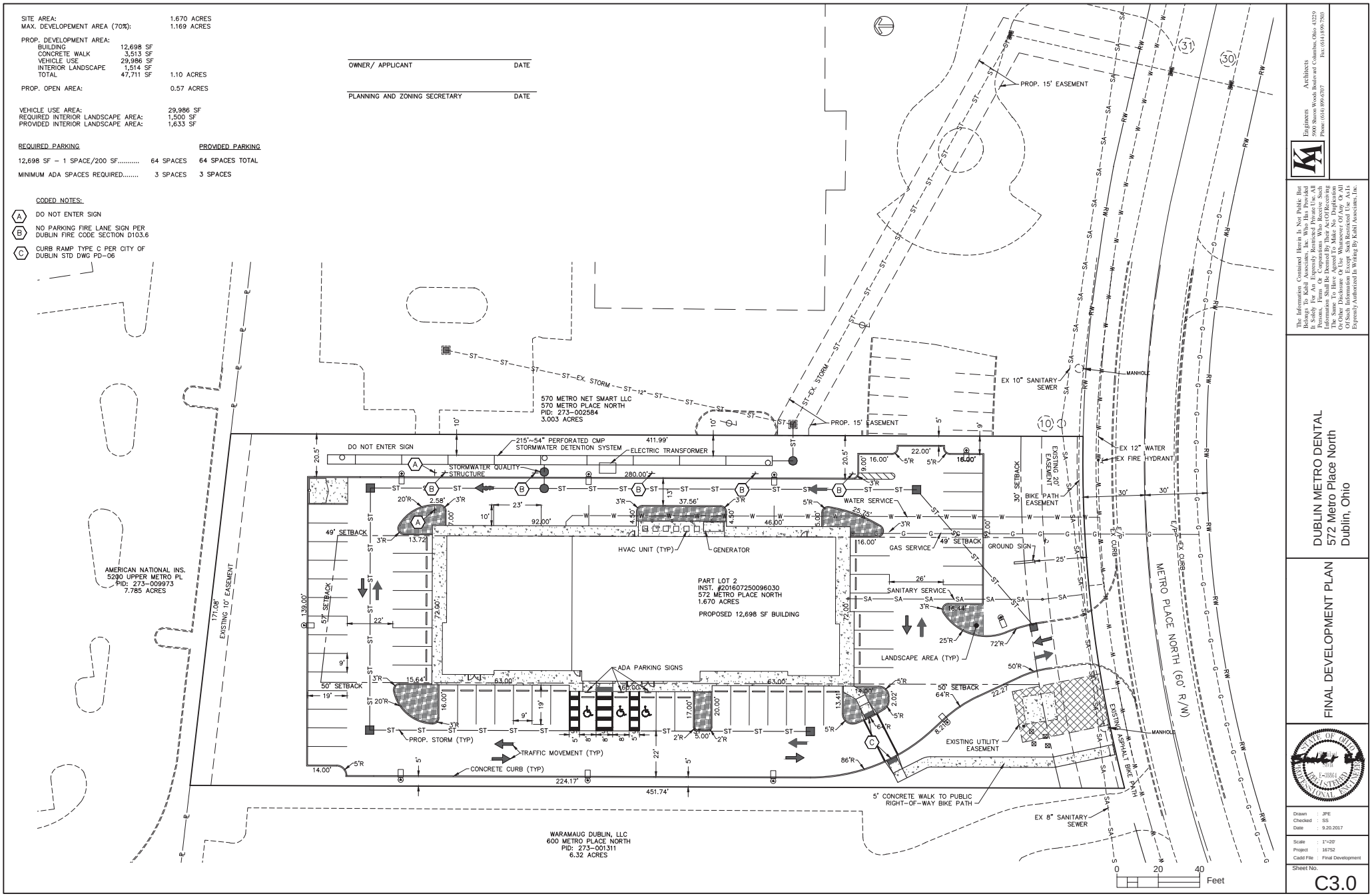
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

EXISTING CONDITIONS

STATE OF OHIO
Jason P. Eberle
REGISTERED
PROFESSIONAL ENGINEER

Drawn	JPE
Checked	SS
Date	9.20.2017
Scale	As Noted
Project	16752
Cadd File	Final Development

Sheet No.
C2.0



Engineers Architects
5500 Shier Woods Boulevard Columbus, Ohio 43229
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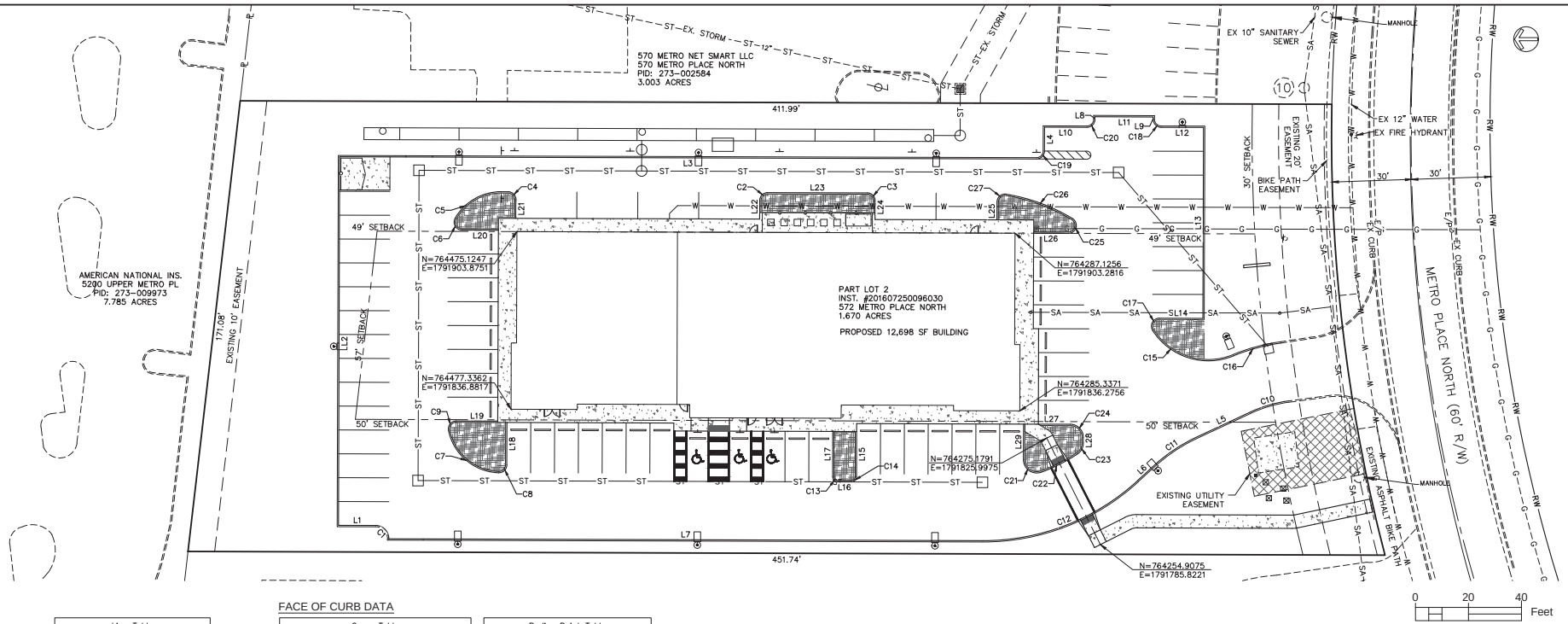
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

FINAL DEVELOPMENT PLAN

Drawn	JPE
Checked	SS
Date	9.20.2017
Scale	1"=20'
Project	16752
Cadd File	Final Development

Sheet No.
C3.0



Line Table		
Line #	Length	Direction
L1	14.00'	S00° 10' 51.13"W
L2	139.00'	N89° 49' 08.87"W
L3	263.00'	N00° 10' 51.13"E
L4	9.00'	N89° 49' 08.87"W
L5	22.27'	N24° 55' 36.80"W
L6	8.21'	N42° 33' 11.00"W
L7	224.17'	N00° 10' 51.13"E
L8	0.99'	N89° 49' 08.87"W
L9	0.90'	S89° 49' 08.87"E
L10	16.00'	S00° 10' 51.13"W
L11	22.00'	S00° 10' 51.13"W
L12	16.00'	S00° 10' 51.13"W
L13	72.00'	N89° 49' 08.87"W
L14	16.44'	N00° 10' 51.13"E
L15	17.00'	N89° 49' 08.87"W
L16	5.00'	N00° 10' 51.13"E
L17	17.00'	S89° 49' 08.87"E
L18	16.00'	N89° 49' 08.87"W
L19	15.64'	S00° 10' 51.13"W
L20	13.72'	N00° 10' 51.13"E
L21	7.00'	N89° 49' 08.87"W
L22	4.50'	S89° 49' 08.87"E
L23	37.56'	S00° 10' 51.13"W
L24	4.50'	N89° 49' 08.87"W
L25	6.69'	S89° 49' 08.87"E
L26	13.08'	N00° 10' 51.13"E
L27	14.00'	S00° 10' 51.13"W
L28	2.02'	N89° 49' 08.87"W
L29	13.41'	S89° 49' 08.87"E

FACE OF CURB DATA

Curve Table			
Curve #	Length (ft)	Radius (ft)	Delta (°)
C1	7.85	5.00	90.00
C2	4.71	3.00	90.00
C3	4.71	3.00	90.00
C4	4.71	3.00	90.00
C5	20.95	20.00	60.02
C6	6.28	3.00	119.98
C7	26.61	20.00	76.22
C8	4.81	3.00	91.90
C9	5.33	3.00	101.88
C10	15.12	50.00	17.32
C11	19.69	64.00	17.63
C12	64.14	86.00	42.73
C13	3.14	2.00	90.00
C14	3.14	2.00	90.00
C15	34.69	25.00	79.51
C16	18.57	72.00	14.77
C17	6.44	3.00	123.06
C18	4.71	3.00	90.00
C19	4.71	3.00	90.00
C20	4.71	3.00	90.00
C21	9.61	5.00	110.10
C22	15.32	64.00	13.72
C23	4.90	5.00	56.18
C24	7.85	5.00	90.00
C25	7.81	3.00	149.08
C26	26.77	70.00	21.91
C27	5.18	3.00	99.01

Radius Point Table		
Point #	Northing	Easting
1	764177.2651	1791790.4551
2	764191.5636	1791768.3716
3	764299.0546	1791873.3152
4	764528.4906	1791788.0490
5	764279.0313	1791934.2601
6	764259.9935	1791946.2001
7	764231.9933	1791946.2052
8	764232.6751	1791868.2069
9	764214.1983	1791880.1487
10	764177.2651	1791790.4551
11	764266.3688	1791826.2157
12	764266.3752	1791824.1923
13	764299.0546	1791873.3152
14	764278.9578	1791817.8434
15	764348.9782	1791811.4725
16	764353.9782	1791811.4883
17	764481.9648	1791815.9055
18	764481.3488	1791832.8944
19	764497.9955	1791829.4469
20	764495.8382	1791907.4405
21	764481.1404	1791898.8979
22	764478.5034	1791915.8897
23	764380.5039	1791915.5803
24	764342.9457	1791915.4618
25	764290.9469	1791914.9899
26	764301.6531	1791848.8508
27	764267.0412	1791906.2182

Engineers Architects
5500 Stoneridge Drive, Suite 200
Dublin, Ohio 43017
Phone: (614) 899-0707
Fax: (614) 899-7303

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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

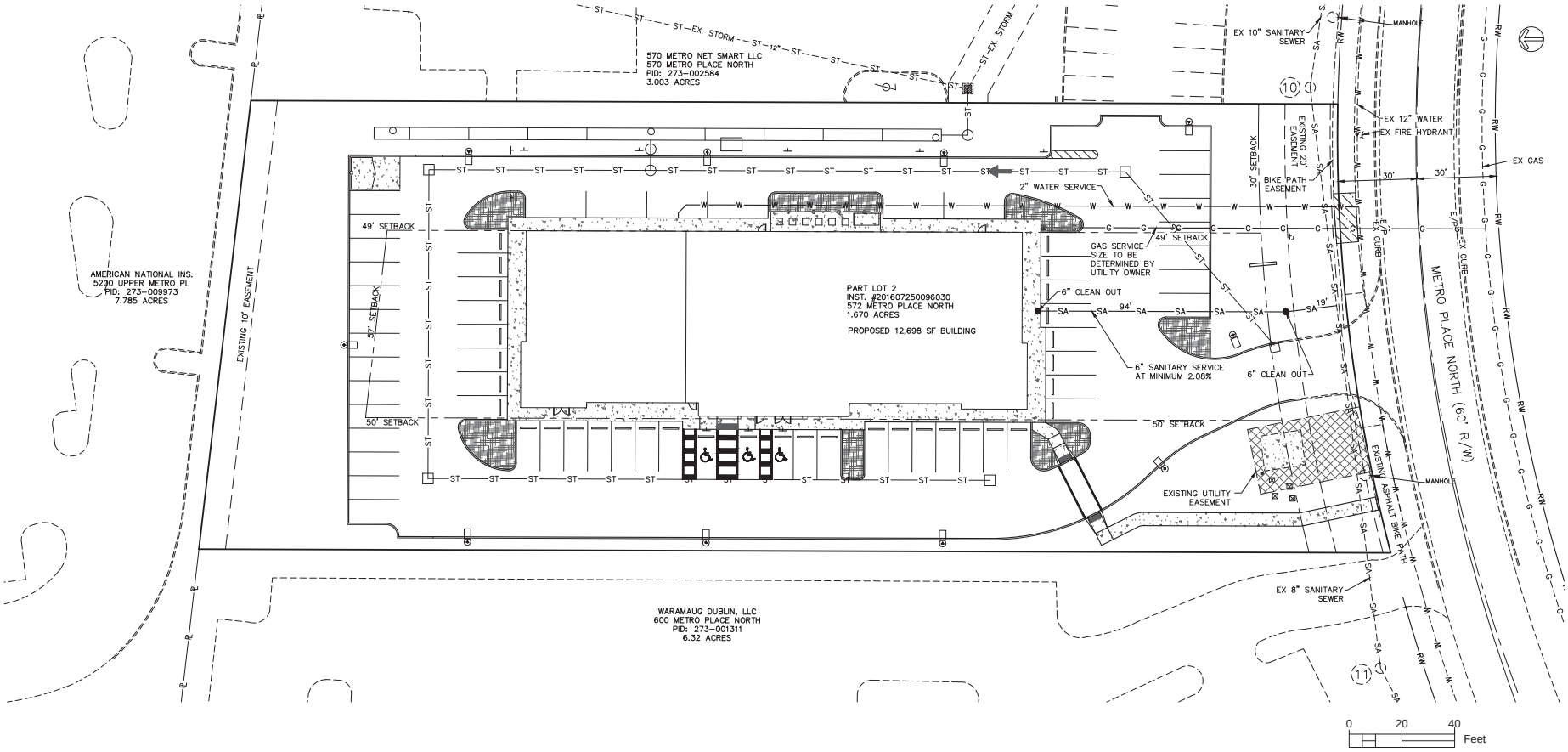
STAKING PLAN

STATE OF OHIO
JEFFREY P. ELLIS
PROFESSIONAL ENGINEER

Drawn : JPE
Checked : SS
Date : 9.20.2017

Scale : 1"=20'
Project : 16752
Cadd File : Final Development

Sheet No.
C4.0



NOTE:

ALL WORK WITH IN THE RIGHT-OF-WAY WILL REQUIRE SEPARATE RIGHT-OF-WAY PERMITS FOR EACH UTILITY.

ANY DISTURBANCE/DAMAGE TO SHARED BACK PATH DURING CONNECTION OF PROPOSED UTILITIES SHALL BE REPAIRED/RECONSTRUCTED PER THE CITY OF DUBLIN STANDARD CONSTRUCTION DRAWING RD-06

Engineers Architects
5500 Stoneridge Drive, Suite 200 Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7503

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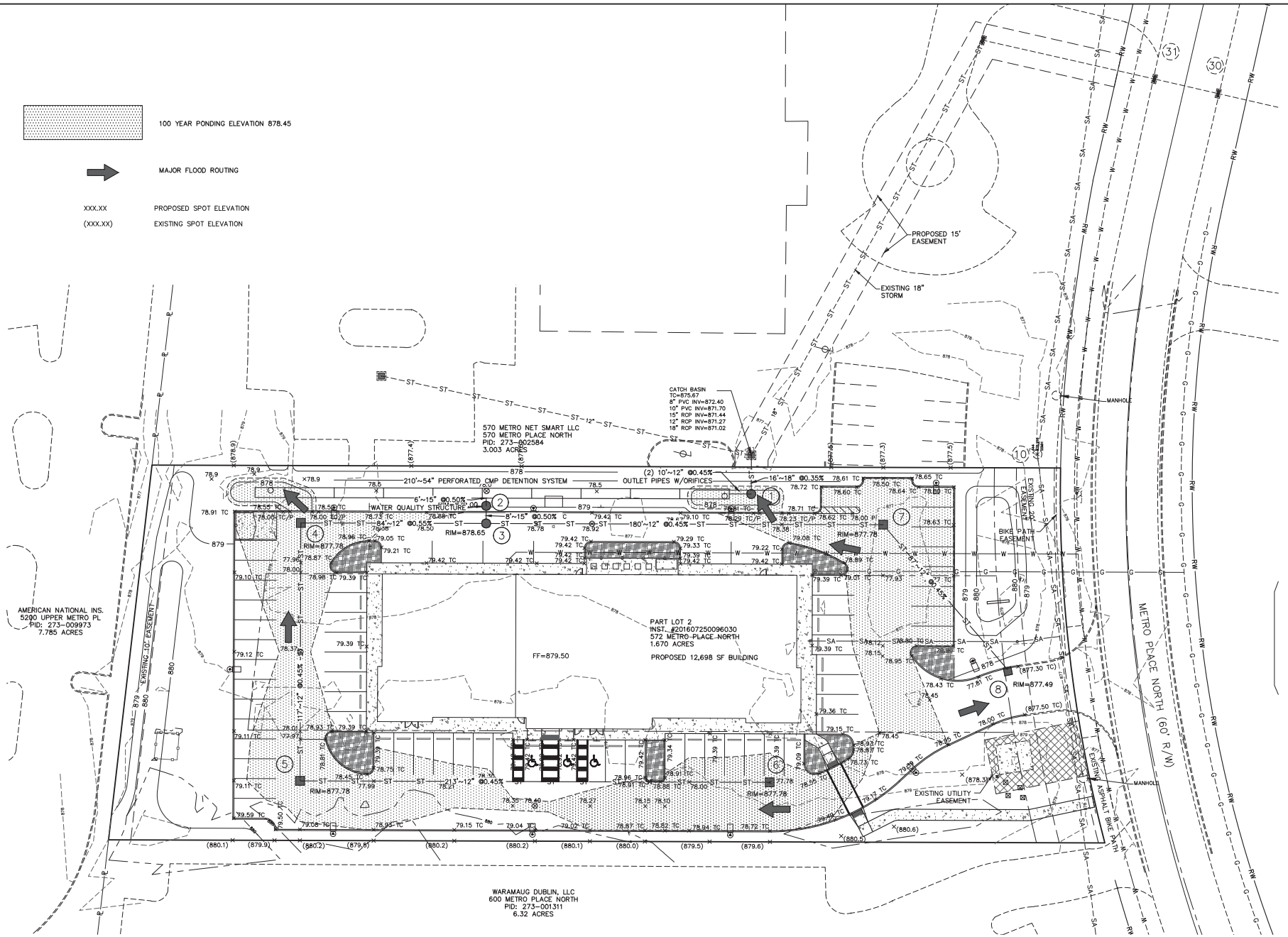
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

UTILITY PLAN

Drawn	JPE
Checked	SS
Date	9.20.2017
Scale	1"=20'
Project	16752
Cadd File	Final Development

Sheet No.
C5.0



Engineers Architects
5500 Blazer Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7503

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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

GRADING PLAN

STATE OF OHIO
Christopher Slater
1-10000
REGISTERED
PROFESSIONAL ENGINEER

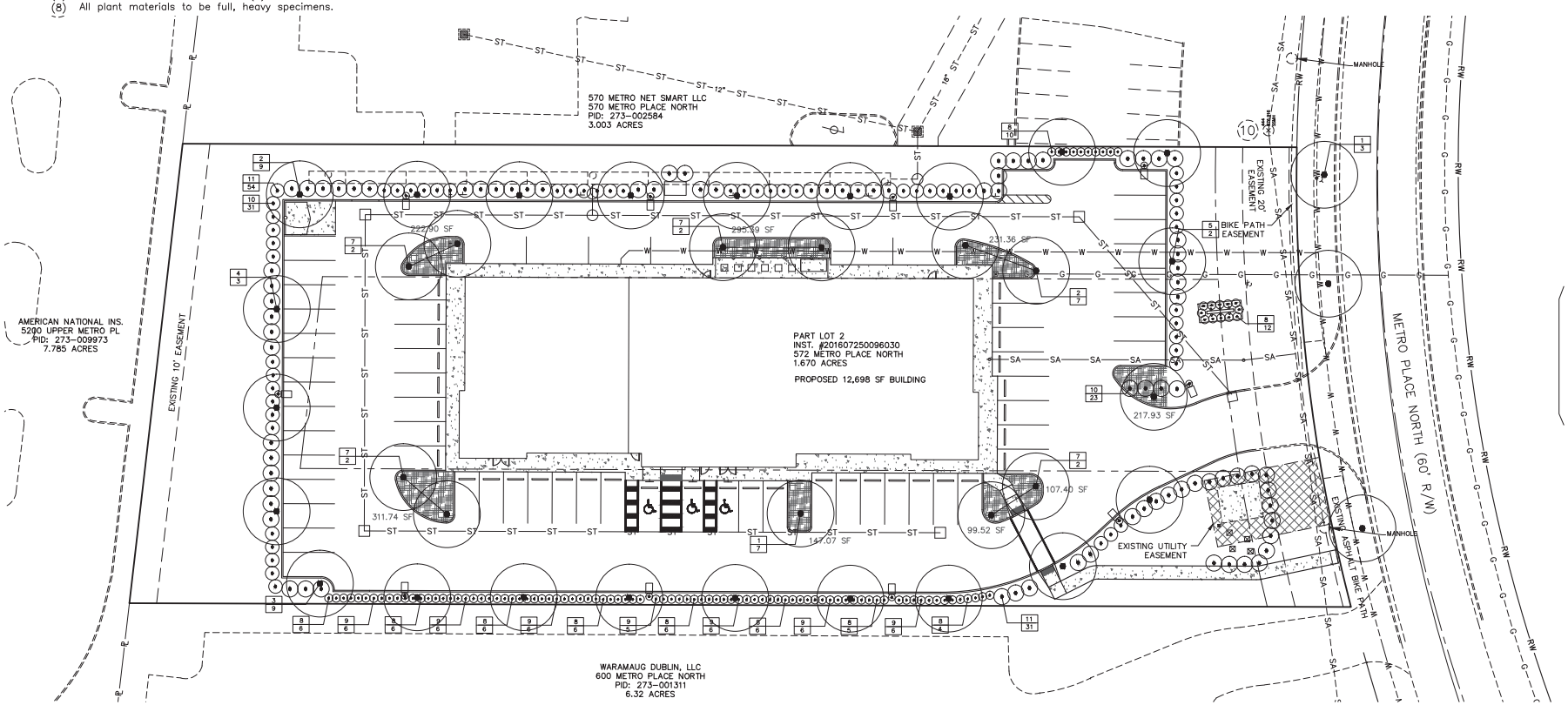
Drawn	: JPE
Checked	: SS
Date	: 9.20.2017
Scale	: 1"=20'
Project	: 16752
Cadd File	: Final Development

Sheet No.
C6.0

NOTES: (1) Cut and fold down the top 1/3 of the wire basket on trees at the time of planting. Cut and remove all twine and twigs around trunks of trees at top of ball at time of planting.
(2) All plant material to be Balled and Burlapped (B&B) or Container grown unless otherwise noted. All B&B materials to have a minimum ball of 11" per caliper inch.
(3) All trees to conform to the American Association of Nurserymen's Standards: Section 1.1.2 – Height of Branching. All trees to be matched.
(4) Stake location of all trees and shrubs for approval prior to planting.
(5) Landscape Contractor to verify all underground utilities prior to digging plant pits.
(6) Tree form, full head, branched at 3 1/2' to 4' height.
(7) All shade trees shall have one (1) central leader.
(8) All plant materials to be full, heavy specimens.

VEHICLE USE AREA: 29,986 SF
REQUIRED INTERIOR LANDSCAPE AREA: 1,500 SF
PROVIDED INTERIOR LANDSCAPE AREA: 1,633 SF

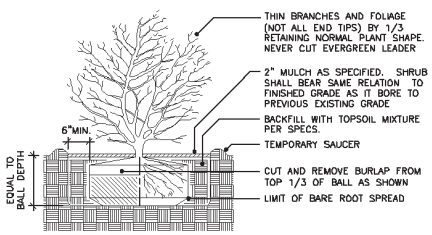
INTERIOR TREES REQUIRED: 9.4
INTERIOR TREES PROVIDED: 11



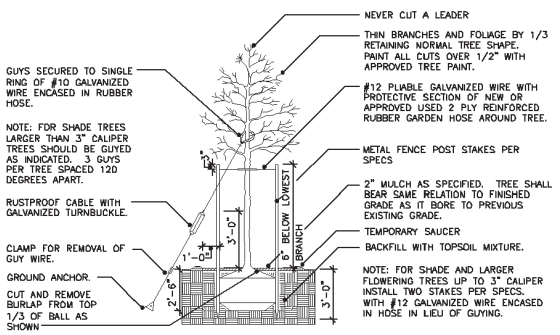
PLANT LIST:

KEY NUMBER / QUANTITY NUMBER

KEY NO.	QUAN.	SIZE	SCIENTIFIC NAME	COMMON NAME
SHADE TREES: (3,7)				
1	3	2 1/2"	Acer saccharum 'Green Mountain'	Green Mountain Sugar Maple
2	9	2 1/2"	Gleditsia triacanthos inermis 'Skyline'	Skyline Honeylocust
3	9	3 1/2"	Quercus imbricaria	Shingle Oak
4	4	2 1/2"	Tilia euchlora	Crimean Linden
5	4	2 1/2"	Ulmus parvifolia	Chinese Elm
ORNAMENTAL TREES: (6)				
6	9	2 1/2"	Carpinus betulus fastigiata	Upright European Hornbeam
7	3	2 1/2"	Acer griseum	Paperbark Maple
SHRUBS: (8)				
8	55	24"	Buxus 'Green Velvet'	Green Velvet Boxwood
9	51	24"	Ilex glabra 'Compacta'	Compact Inkberry
10	54	24"	Taxus baccata 'Repandens'	Repandens Yew
11	85	24"	Taxus media 'Densiformis'	Dense Yew



SHRUB PLANTING DETAIL FOR DECIDUOUS, EVERGREEN & BROADLEAF SHRUBS



TREE PLANTING & STAKING OR GUYING DETAIL

Engineers Architects
5500 Blazer Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7503

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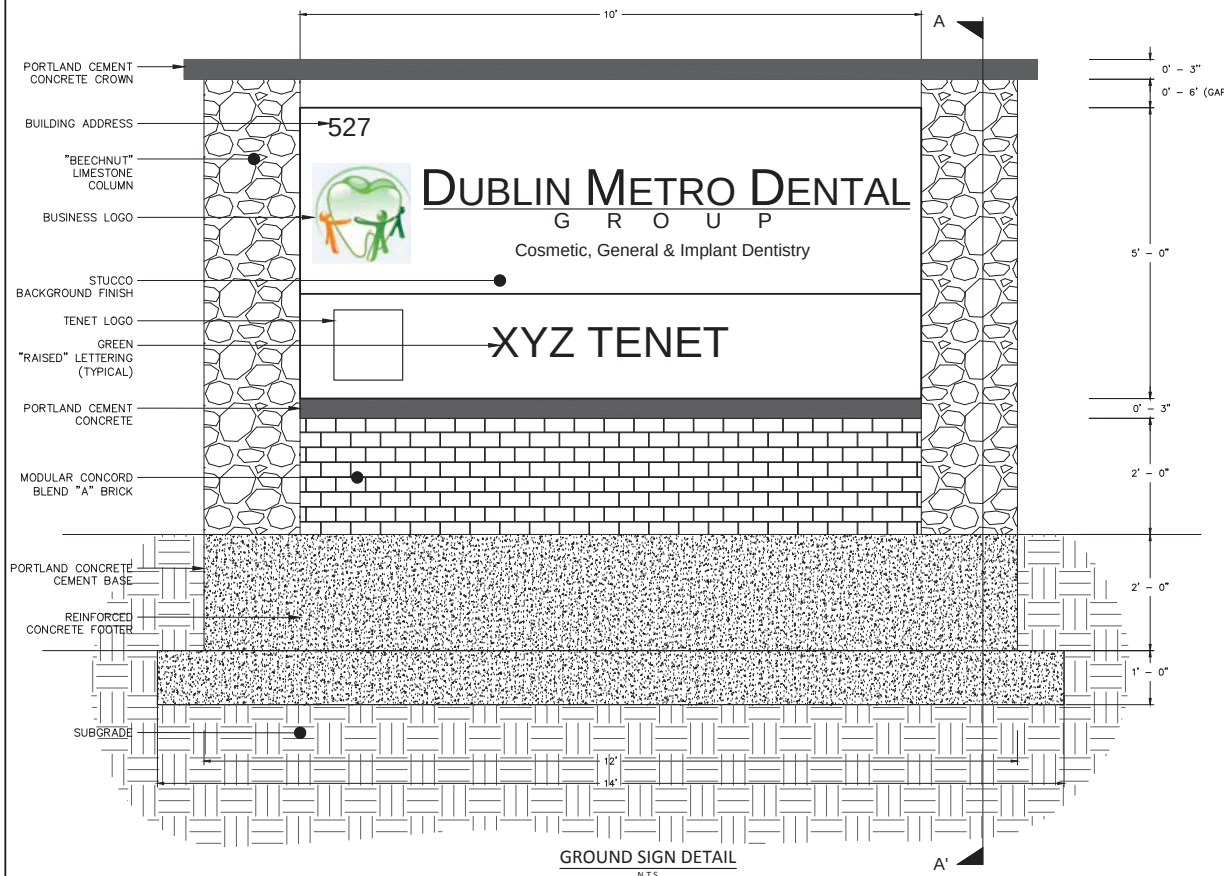
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

LANDSCAPE PLAN

Drawn : JPE
Checked : SS
Date : 9.20.2017

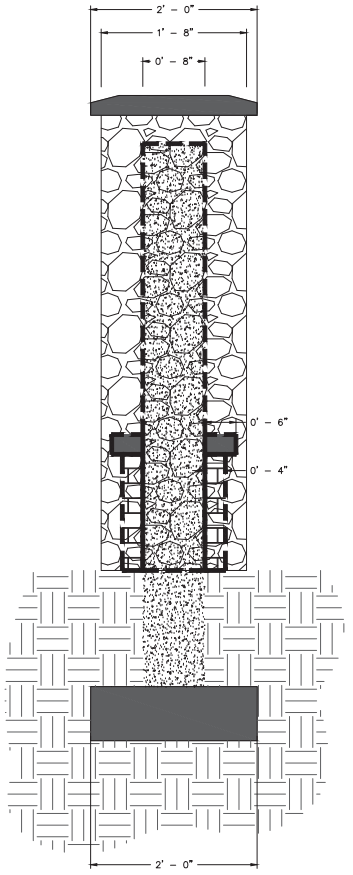
Scale : 1"=20'
Project : 16752
Cadd File : Final Development

Sheet No.
C7.0



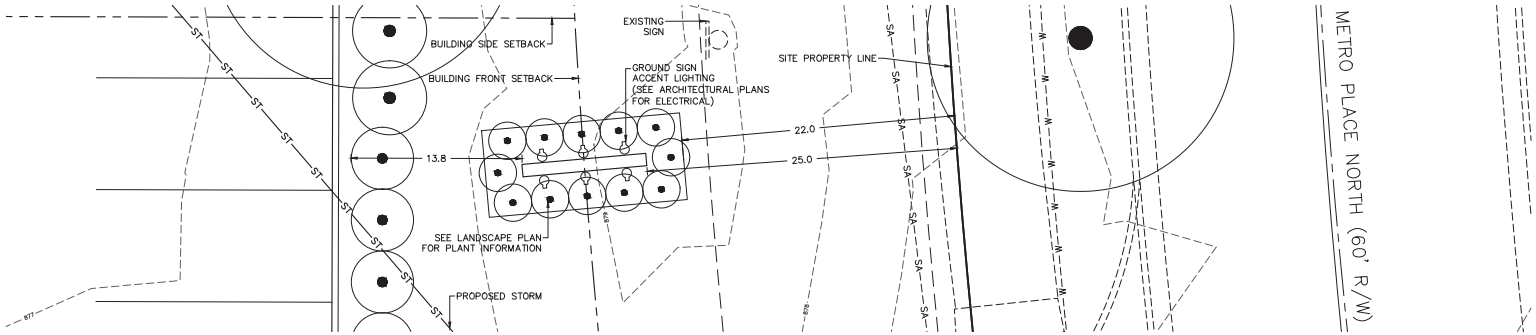
GROUND SIGN DETAIL

N.T.S.



GROUND SIGN CROSS-SECTION (A - A') DETAIL

N.T.S.



GROUND SIGN PLAN VIEW

SCALE: 1" = 5'

Engineers Architects
5500 Blazer Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7593

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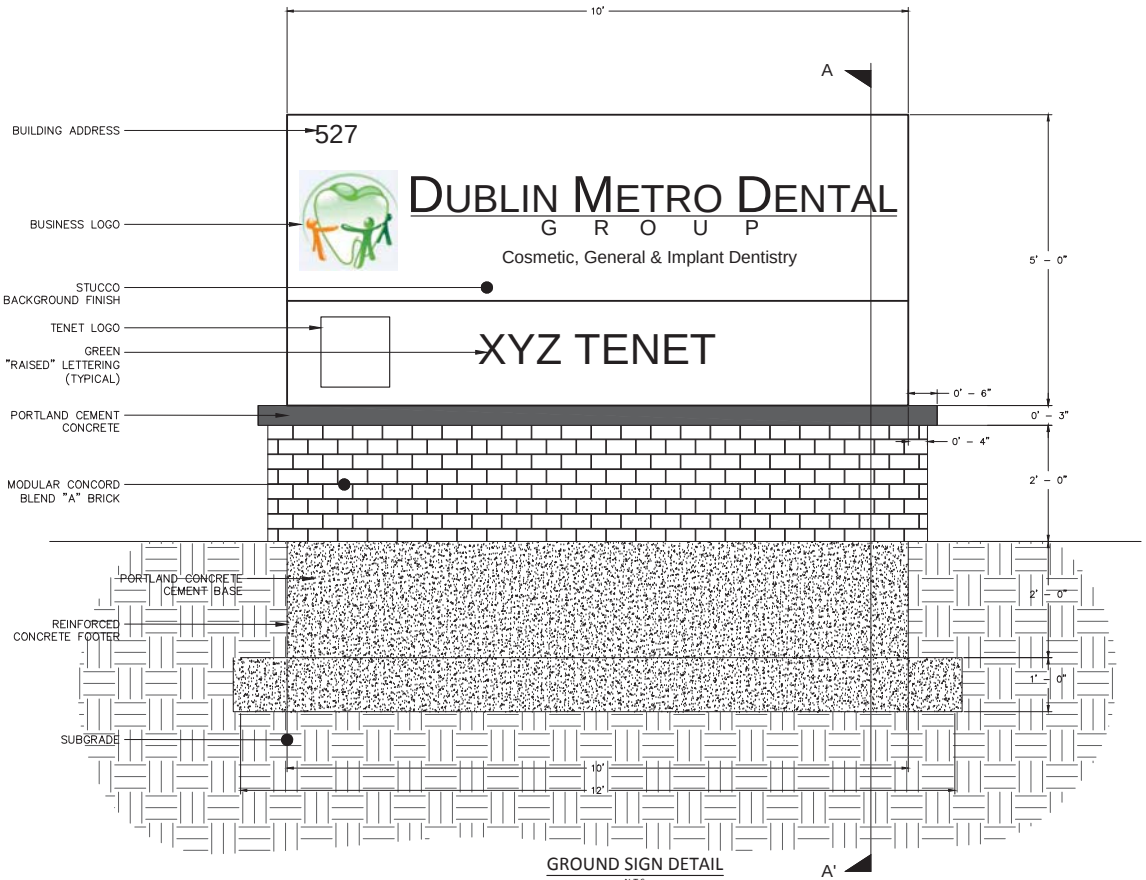
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

SIGN PLAN
OPTION 1

Drawn : JPE
Checked : SS
Date : 9.20.2017

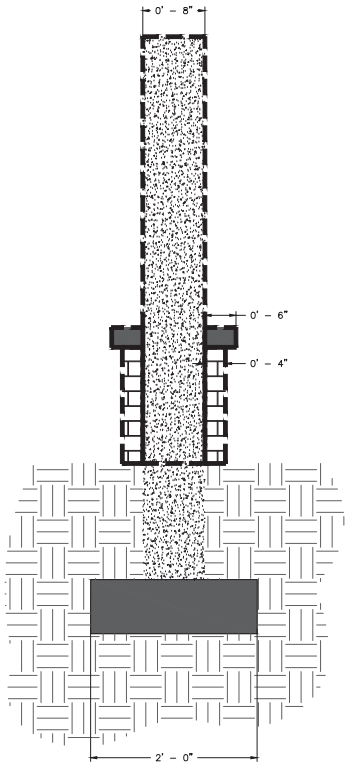
Scale : 1"=20'
Project : 16752
Cadd File : Final Development

Sheet No.
C8.0



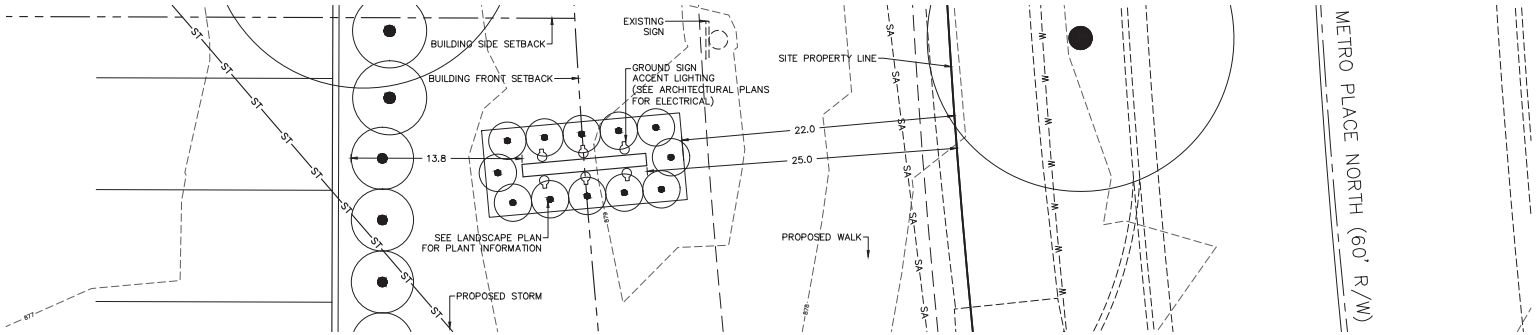
GROUND SIGN DETAIL

N.T.S.



GROUND SIGN CROSS-SECTION (A - A') DETAIL

N.T.S.



GROUND SIGN PLAN VIEW

SCALE: 1" = 5'

Engineers Architects
5500 Blazer Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7503

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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

SIGN PLAN
OPTION 2

Drawn	JPE
Checked	SS
Date	9.20.2017
Scale	1"=20'
Project	16752
Cadd File	Final Development

Sheet No.
C8.1

GENERAL NOTES

1. 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 decided by the City Engineer. Item Numbers listed refer to City of Columbus Item Numbers unless otherwise noted.

2. 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.

3. 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.

4. The Contractor shall notify the City of Dublin Division of Engineering in writing at least 3 working days prior to beginning construction.

5. 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.

6. 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.

7. 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.

8. 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.

9. Non-rubber tired vehicles shall not be moved on or across public streets or highways without the written permission of the City Engineer.

10. 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.

11. 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.

12. Disposal of excess excavation within Special Flood Hazard Areas (100-year floodplain) is not permitted.

13. 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.

14. 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.

15. 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.

16. 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 III according to Item 636. Item 911 of the Standard Specifications shall be used elsewhere.

17. 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 5800 Shier Rings Road Dublin, Ohio 43016

18. 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.

19. 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.

20. 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 III) shall be used in place of compacted granular backfill, according to Item 636 of the Standard Specifications.

21. 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.

22. 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.

23. 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.

24. Any modification to the work shown on drawings must have prior written approval by the City Engineer, City of Dublin.

25. All inlets shall be channelized.

26. 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.

27. 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.

28. 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.

UTILITIES

1. The following utilities are known to be located within the limits of this project: (Insert Name of Utility) and (Insert Name of Utility)

2. The Contractor shall give notice of intent to construct to Ohio Utilities Protection Service (telephone number 800-362-2764), Producer's Underground Protection Service (telephone number 614-587-0486), 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 before start of construction.

3. 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.

4. 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.

5. When unknown or incorrectly located underground utilities are encountered during construction, the Contractor shall immediately notify the owner and the City Engineer.

6. 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.

TRAFFIC CONTROL

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 City Engineer. At all other hours the Contractor shall maintain minimum one-lane two-way traffic. Uniformed, off-duty police officers shall replace flagmen designated by the OMUTCD, and shall be present whenever one-lane, two-way traffic control is in effect. Police cruisers may be required as directed by the City Engineer.

3. If the City Engineer determines that the Contractor is not providing proper provisions for traffic control, the City Engineer shall assign uniformed, off-duty police officers to the project 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. The traffic control plan must incorporate any traffic control details contained herein. The traffic control plan proposed by the Contractor must be approved by the City Engineer prior to construction.

EROSION AND SEDIMENT CONTROL

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.

BLASTING (If Permitted)

1. The Contractor must obtain a blasting permit from Washington Township Fire Department prior to blasting for rock excavation. The Contractor shall submit blasting reports upon completion of blasting to the City Engineer, the Owner, and the Owner's engineer. Top of rock elevations shall be shown on "as-built" construction drawings.

SANITARY SEWERS

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

6. Granular backfill shall be compacted granular material according to Item 912 of the Standard Specifications or Controlled Density Backfill according to Item 636, Type III of the Standard Specifications as directed by the City Engineer.

7. 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.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. Visible leaks or other defects observed or discovered during TV inspection shall be repaired to the satisfaction of the Engineer.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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.

19. 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.

20. 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:

A. Rubber sleeve with stainless steel banding.

1) Kor-N-Seal as manufactured by National Pollution Control Systems, Inc.

2) Lock Joint Flexible Manhole Sleeve as manufactured by Interpace Corporation.

3) Or equal as approved by the City Engineer.

B. Rubber gasket compression.

1) Press Wedge II as manufactured by Press-Seal Gasket Corporation.

2) Dura Seal III as manufactured by Dura Tech, Inc.

3) Link-Seal as manufactured by Thunderline Corporation.

4) 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

1. All water line materials shall be provided and installed according to current specifications of the City of Columbus Division of Water.

2. 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.

3. Only fire hydrants conforming to City of Columbus standards will be approved for use.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. All water main stationing shall be based on street centerline stationing.

10. All bends, joint deflections and fittings shall be backed with concrete per City of Columbus standards.

11. 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.

12. 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.

13. Water lines to be installed in embankment areas shall be placed after the embankment has been placed and compacted according to the Standard Specifications.

14. Curb stop boxes shall be located at least 1 foot inside the right-of-way and set at finished grade.

15. 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.

16. 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.

17. Two ¾ inch taps shall be installed within 2 feet of the end of the line on all dead-end water lines.

STORM SEWER

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 636, Type III 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 indluce engraved lettering: "DUMP NO WASTE; DRAINS TO RIVER."

7. 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.

MAIL DELIVERY

1. The Contractor shall be responsible to ensure that US Mail delivery within the project limits is not disrupted by construction operations. This responsibility is limited to relocation of mailboxes to a temporary location that will allow the completion of the work and shall also include the restoration of mailboxes to their original location or approved new location. Any relocation of mailbox services must be first coordinated with the US Postal Service and the homeowner.

2. Before relocating any mailboxes, the Contractor shall contact the U.S. Postal Service and relocate mailboxes according to the requirements of the Postal Service.

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.

KA
Engineers Architects
5900 Sharon Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-6707 Fax: (614) 899-7503

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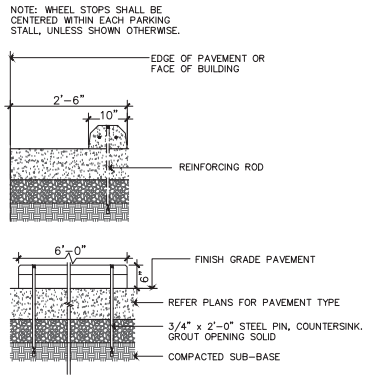
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

GENERAL NOTES

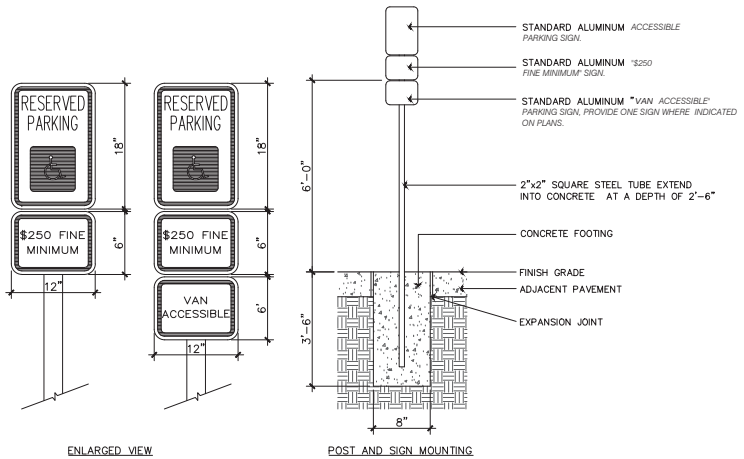
STATE OF OHIO
Shashikant Savla
E-38864
REGISTERED PROFESSIONAL ENGINEER

Drawn	:	JPE
Checked	:	SS
Date	:	9.20.2017
Scale	:	1"=20'
Project	:	16752
Cadd File	:	Final Development

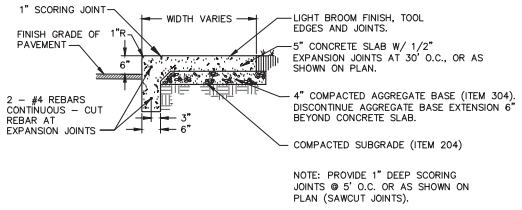
Sheet No.
C9.0



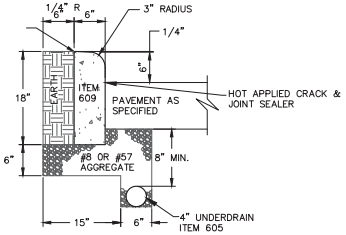
CONCRETE PARKING BLOCK
N.T.S



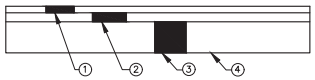
HANDICAP PARKING SIGN
N.T.S



INTEGRAL CONCRETE CURB AND WALK
N.T.S



CURB, STRAIGHT 18" DETAIL
N.T.S.



1. ASPHALT CONCRETE SURFACE COURSE TYPE 1 PG. 64-22 MEDIUM TRAFFIC ITEM 448 - 1 1/4"
2. ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2 PG. 64-22 MEDIUM TRAFFIC ITEM 448 - 1 3/4"
3. AGGREGATE BASE ITEM 304 - 6"
4. SUBGRADE COMPACTION ITEM 204

PAVEMENT DETAIL
N.T.S

Engineers Architects
500 Stonn Woods Boulevard Columbus, Ohio 43229
Phone: (614) 899-0707 Fax: (614) 899-7593

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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

DETAILS

Drawn : JPE
Checked : SS
Date : 9.20.2017

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Project : 16752
Cadd File : Final Development

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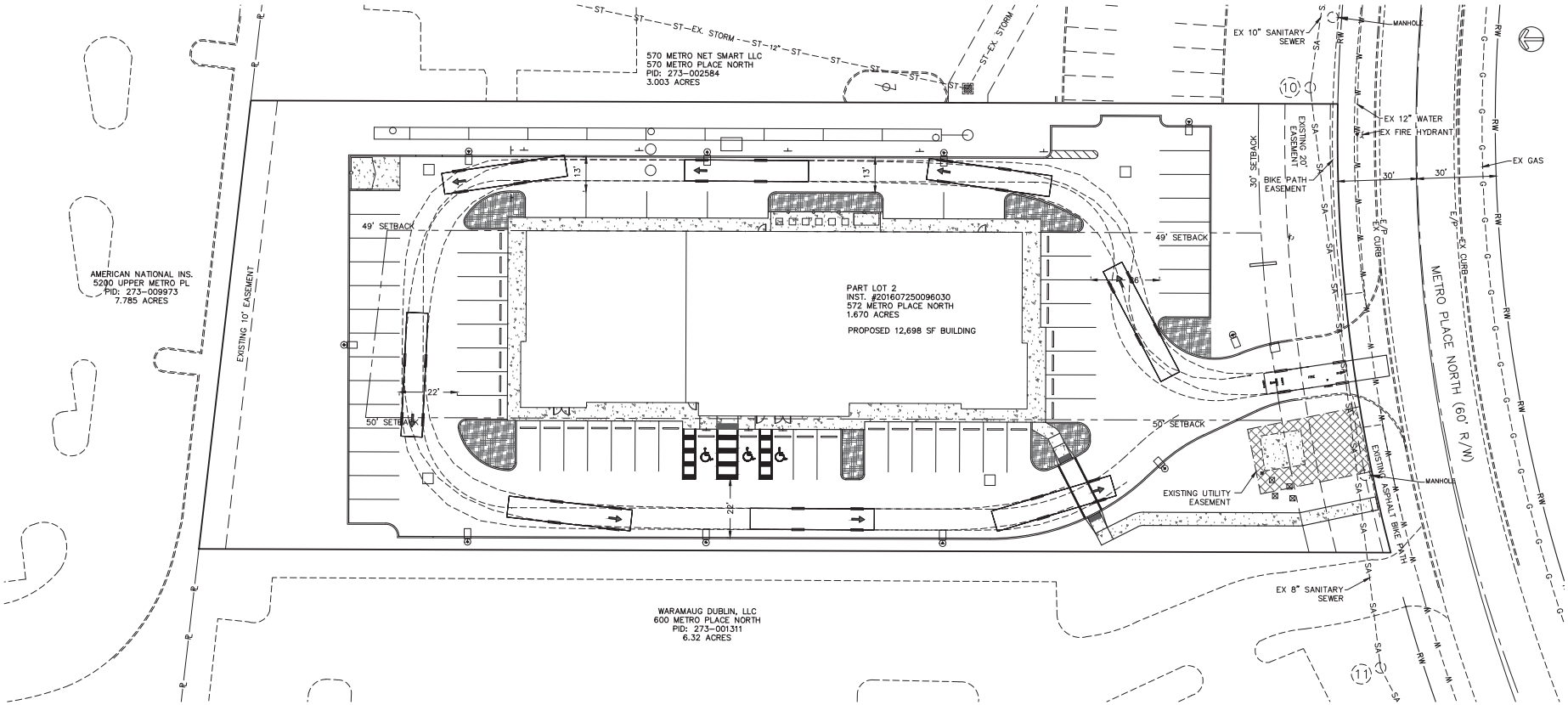

FIRE TRUCK DATA:

OVERALL LENGTH	47'
FRONT AXLE TO BUMPER	6'-7"
WHEEL BASE	22'-4"
AXLE WIDTH	8'-3"

Engineers Architects
5500 Stoneridge Drive, Suite 200
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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

AUTOTURN EXHIBIT

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Project	16752
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Sheet No.
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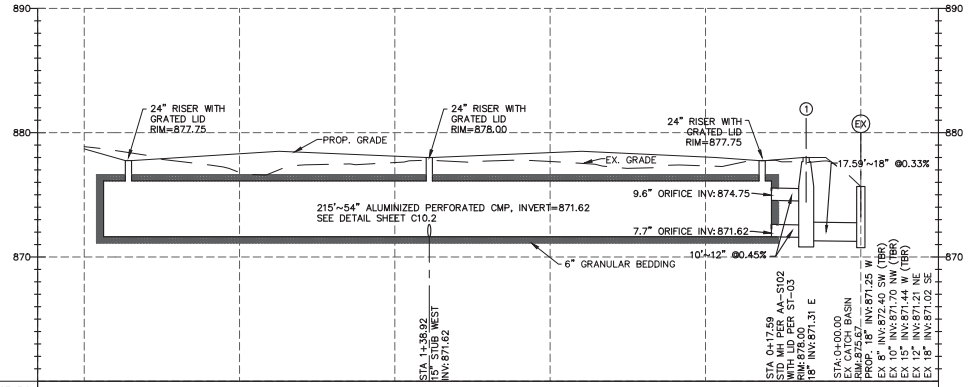
Profile View of STM EX-D



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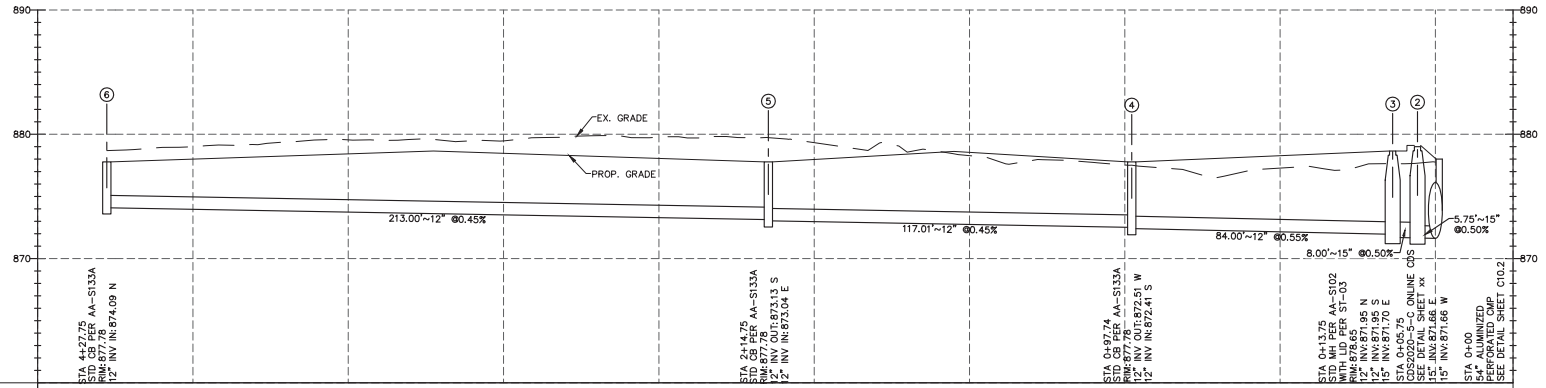
EX. SURFACE	878.88	876.80	877.59	877.68	877.33	875.67
INVERT		871.62	871.62	871.62	871.62	871.50
CUT		5.81	6.53	6.62	6.20	4.17

Profile View of STM D-6



STATION	4+00	3+50	3+00	2+50	2+00	1+50	1+00	0+50	0+00
EX. SURFACE	879.00	879.55	879.46	879.79	879.32	878.28	877.53	877.28	877.77
INVERT	873.71	873.49	873.26	873.04	872.72	872.50	872.27	871.90	871.37
CUT	5.29	6.06	6.20	6.75	6.60	5.78	5.26	5.38	6.40

Engineers Architects
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STORM PROFILES

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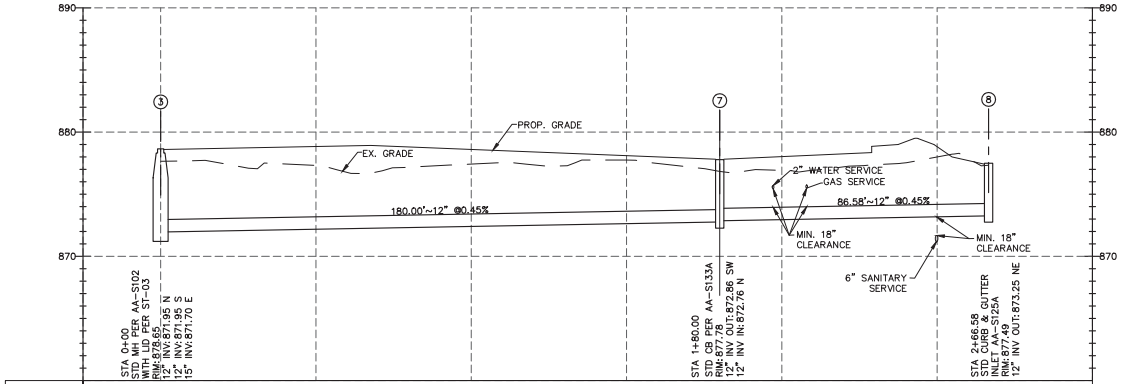
C10.0

Profile View of STM 3-8



STATION	0+00	0+50	1+00	1+50	2+00	2+50
EX. SURFACE	877.65	877.32	877.42	877.74	876.92	877.99
INVERT	871.71	871.93	872.15	872.38	872.70	872.92
CUT	5.94	5.39	5.27	5.37	4.22	5.07

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STORM PROFILES

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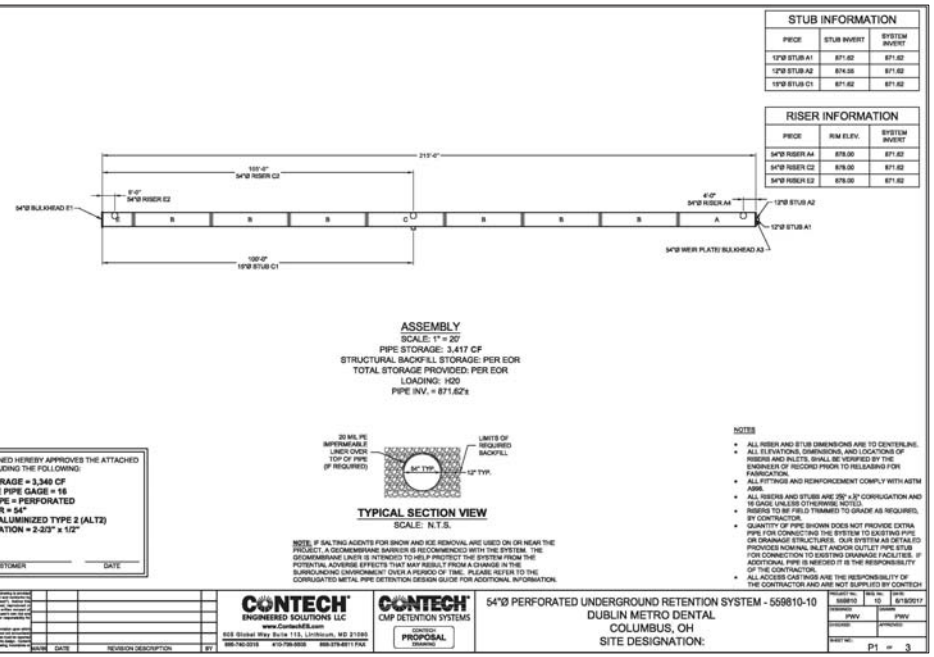

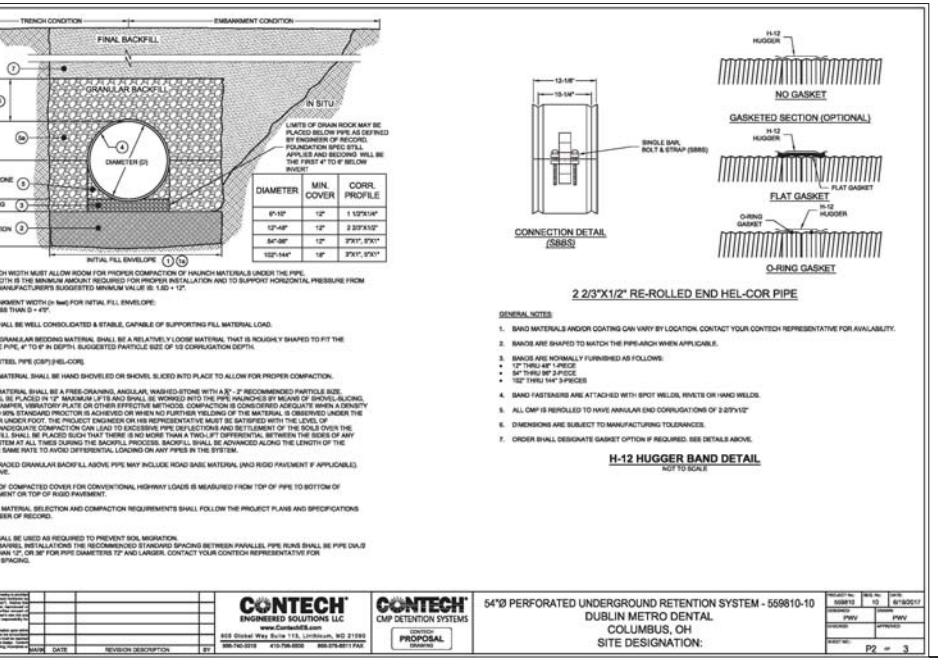

MAINTENANCE

UNDERGROUND STORM WATER DETENTION SYSTEMS SHOULD BE INSPECTED AT REGULAR INTERVALS AND MAINTAINED WHEN NECESSARY TO ENSURE OPTIMUM PERFORMANCE. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE HEAVILY ON SITE ACTIVITIES THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE AND IS EASILY PERFORMED. ONGOING QUARTERLY INSPECTIONS OF THE ACCUMULATED SEDIMENT ARE REQUIRED. SEDIMENT DEPOSITION AND TRANSPORT MAY VARY FROM YEAR TO YEAR AND QUARTERLY INSPECTIONS WILL HELP INSURE THAT SYSTEMS ARE CLEANED OUT AT THE APPROPRIATE TIME. AN INSPECTION LOG SHALL BE KEPT OF ALL QUARTERLY INSPECTIONS.

SYSTEMS SHOULD BE CLEANED WHEN INSPECTION REVEALS THAT ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE OUTLET STRUCTURE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

PROPERTY OWNER SHALL MAINTAIN COPIES OF COMPLETE DATED AND SIGNED INSPECTION CHECKLISTS IN A MAINTENANCE INSPECTION LOG, ALONG WITH RECORDED DATES AND DESCRIPTIONS OF MAINTENANCE ACTIVITIES PERFORMED BY THE PROPERTY OWNER TO REMEDY THE DEFICIENCIES OBSERVED DURING PRIOR INSPECTIONS. THE MAINTENANCE INSPECTION LOG SHALL BE KEPT ON THE PROPERTY AND SHALL BE MADE AVAILABLE TO THE CITY UPON REQUEST.

CLEANING

CLEANING OF THE DETENTION SYSTEM SHOULD BE SCHEDULED DURING DRY WEATHER SO THAT THERE IS NO FLOW THROUGH THE SYSTEM AT THE TIME OF CLEANING.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES.

SEDIMENT IS TO BE COLLECTED, REMOVED AND DISPOSED OF ACCORDING TO LOCAL, STATE AND FEDERAL GUIDELINES NOT FLUSHED THROUGH SYSTEM.

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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

STORM DETAILS

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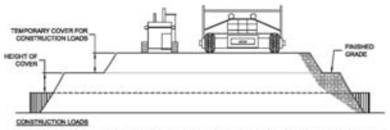


CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

PIPE

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY

SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

INSTALLATION

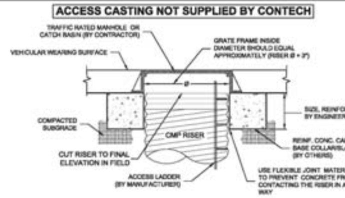
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

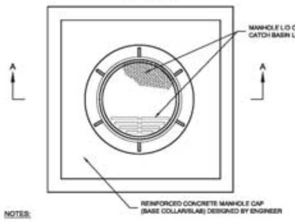
MATERIAL SPECIFICATION

SCALE: N.T.S.

ACCESS CASTING NOT SUPPLIED BY CONTECH



SECTION A-A



NOTES:

1. THE CONCRETE CAP (BASE COLLAR/SLAB) SHALL BE SIZED AND DESIGNED BY OTHERS SO THAT THE LOADS ARE TRANSMITTED TO THE SOIL, AND NOT THE RISER.
2. THE CONCRETE CAP SHALL BE SIZED TO PROVIDE AN ADEQUATE BOTTOM AREA BASED ON THE ALLOWABLE BEARING CAPACITY OF THE SOIL.
3. THE FLEXIBLE JOINT MATERIAL (RECYCLED VINYL OR EQ.) TO BE STIFF ENOUGH SO THAT THE CONCRETE CAN NEVER ENGAGE WITH THE RISER CORRUGATIONS.

MANHOLE CAP DETAIL

SCALE: N.T.S.

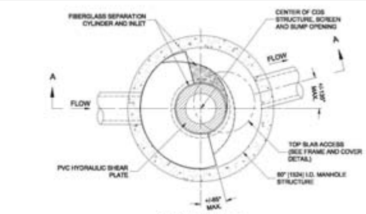
MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
800 Global Way Suite 113, Linthicum, MD 21090
800-740-3318 410-796-5505 800-379-8011 FAX

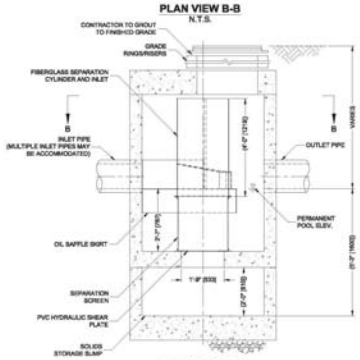
CONTECH CMP DETENTION SYSTEMS
CONTECH PROPOSAL DRAWING

54"Ø PERFORATED UNDERGROUND RETENTION SYSTEM - 559810-10
DUBLIN METRO DENTAL
COLUMBUS, OH
SITE DESIGNATION:

PROJECT No.	SEQ. No.	DATE:
559810	10	6/19/2017
DESIGNED: PWV		DRAWN: PWV
CHECKED:		APPROVED:
SHEET NO.: P3 OF 3		



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CDS2020-5-C DESIGN NOTES

CDS2020-5-C RATED TREATMENT CAPACITY IS 1.1 CFS (31.2 L/s), OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 14.0 CFS (396 L/s). IF THE SITE CONDITIONS EXCEED 14.0 CFS (396 L/s), AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS2020-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS

FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			1.05
PEAK FLOW RATE (CFS OR L/s)			4.19
RETURN PERIOD OF PEAK FLOW (YRS)			5
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	871.66	*	15"
INLET PIPE 2	N/A	*	*
OUTLET PIPE	871.66	*	15"
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2020-5-C
ONLINE CDS
STANDARD DETAIL

MAINTENANCE

THE STORM WATER QUALITY STRUCTURE SHOULD BE INSPECTED AT REGULAR INTERVALS (EVERY THREE MONTHS) AND MAINTAINED WHEN NECESSARY TO ENSURE OPTIMUM PERFORMANCE. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE HEAVILY ON SITE ACTIVITIES THAN THE SIZE OF THE UNIT. FOR EXAMPLE, UNSTABLE SOILS OR HEAVY WINTER SANDING WILL CAUSE THE GRIT CHAMBER TO FILL MORE QUICKLY BUT REGULAR SWEEPING OF PAVED SURFACES WILL SLOW ACCUMULATION.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE AND IS EASILY PERFORMED. POLLUTANT TRANSPORT AND DEPOSITION MAY VARY FROM YEAR TO YEAR AND REGULAR INSPECTIONS WILL HELP ENSURE THAT THE SYSTEM IS CLEANED OUT AT THE APPROPRIATE TIME. INSPECTIONS SHOULD BE PERFORMED EVERY THREE MONTHS. INSTALLATIONS SHOULD ALSO BE INSPECTED MORE FREQUENTLY WHERE EXCESSIVE AMOUNTS OF TRASH ARE EXPECTED.

THE VISUAL INSPECTION SHOULD ASCERTAIN THAT THE SYSTEM COMPONENTS ARE IN WORKING ORDER AND THAT THERE ARE NO BLOCKAGES OR OBSTRUCTIONS IN THE INLET AND SEPARATION SCREEN. THE INSPECTION SHOULD ALSO QUANTIFY THE ACCUMULATION OF HYDROCARBONS, TRASH, AND SEDIMENT IN THE SYSTEM. MEASURING POLLUTANT ACCUMULATION CAN BE DONE WITH A CALIBRATED DIPSTICK, TAPE MEASURE OR OTHER MEASURING INSTRUMENT. IF ABSORBENT MATERIAL IS USED FOR ENHANCED REMOVAL OF HYDROCARBONS, THE LEVEL OF DISCOLORATION OF THE SORBENT MATERIAL SHOULD ALSO BE IDENTIFIED DURING INSPECTION. A RECORD OF INSPECTIONS SHALL BE KEPT.

ACCESS TO THE STORM WATER QUALITY STRUCTURE IS THROUGH TWO MANHOLE ACCESS COVERS. ONE OPENING ALLOWS FOR INSPECTION AND CLEANOUT OF THE SEPARATION CHAMBER (CYLINDER AND SCREEN) AND ISOLATED SUMP. THE OTHER ALLOWS FOR INSPECTION AND CLEANOUT OF SEDIMENT CAPTURED AND RETAINED OUTSIDE THE SCREEN.

THE STORM WATER QUALITY SYSTEM SHOULD BE CLEANED WHEN THE LEVEL OF SEDIMENT HAS REACHED 75% OF CAPACITY IN THE ISOLATED SUMP OR WHEN AN APPRECIABLE LEVEL OF HYDROCARBONS AND TRASH HAS ACCUMULATED. IF ABSORBENT MATERIAL IS USED, IT SHOULD BE REPLACED WHEN SIGNIFICANT DISCOLORATION HAS OCCURRED. PERFORMANCE WILL NOT BE IMPACTED UNTIL 100% OF THE SUMP CAPACITY IS EXCEEDED HOWEVER IT IS RECOMMENDED THAT THE SYSTEM BE CLEANED PRIOR TO THAT FOR EASIER REMOVAL OF SEDIMENT. THE LEVEL OF SEDIMENT IS EASILY DETERMINED BY MEASURING FROM FINISHED GRADE DOWN TO THE TOP OF THE SEDIMENT PILE. TO AVOID UNDERESTIMATING THE LEVEL OF SEDIMENT IN THE CHAMBER, THE MEASURING DEVICE MUST BE LOWERED TO THE TOP OF THE SEDIMENT PILE CAREFULLY. PARTICLES AT THE TOP OF THE PILE TYPICALLY OFFER LESS RESISTANCE TO THE END OF THE ROD THAN CONSOLIDATED PARTICLES TOWARD THE BOTTOM OF THE PILE. ONCE THIS MEASUREMENT IS RECORDED, IT SHOULD BE COMPARED TO THE AS-BUILT DRAWING FOR THE UNIT TO DETERMINE WHETHER THE HEIGHT OF THE SEDIMENT PILE OFF THE BOTTOM OF THE SUMP FLOOR EXCEEDS 75% OF THE TOTAL HEIGHT OF ISOLATED SUMP (18.86' BELOW FINISH GRADE TO TOP OF SEDIMENT PILE PER DESIGN).

PERIODIC INSPECTIONS OF THE STORM WATER CONTROL FACILITIES AT A FREQUENCY STIPULATED IN THE MAINTENANCE PLAN/SCHEDULE SHALL BE RECORDED ON A REGULAR BASIS. LOGS SHALL BE KEPT FOR THESE INSPECTIONS. SAMPLE LOG SHEETS ARE AVAILABLE IN THE CITY OF COLUMBUS STORM WATER DRAINAGE MANUAL, APPENDIX E. LOGS SHALL BE MADE AVAILABLE TO THE CITY OF COLUMBUS, DIVISION OF SEWERS AND DRAINS, STORMWATER & REGULATORY MANAGEMENT SECTION FOR INSPECTION ON AN AS NEEDED BASIS.

PROPERTY OWNER SHALL MAINTAIN COPIES OF COMPLETE DATED AND SIGNED INSPECTION CHECKLISTS IN A MAINTENANCE INSPECTION LOG, ALONG WITH RECORDED DATES AND DESCRIPTIONS OF MAINTENANCE ACTIVITIES PERFORMED BY THE PROPERTY OWNER TO REMEDY THE DEFICIENCIES OBSERVED DURING PRIOR INSPECTIONS. THE MAINTENANCE INSPECTION LOG SHALL BE KEPT ON THE PROPERTY AND SHALL BE MADE AVAILABLE TO THE CITY UPON REQUEST.

CLEANING

CLEANING OF THE SYSTEMS SHOULD BE DONE DURING DRY WEATHER CONDITIONS WHEN NO FLOW IS ENTERING THE SYSTEM. THE USE OF A VACUUM TRUCK IS GENERALLY THE MOST EFFECTIVE AND CONVENIENT METHOD OF REMOVING POLLUTANTS FROM THE SYSTEM. SIMPLY REMOVE THE MANHOLE COVERS AND INSERT THE VACUUM HOSE INTO THE SUMP. THE SYSTEM SHOULD BE COMPLETELY DRAINED DOWN AND THE SUMP FULLY EVACUATED OF SEDIMENT. THE AREA OUTSIDE THE SCREEN SHOULD ALSO BE CLEANED OUT IF POLLUTANT BUILD-UP EXISTS IN THIS AREA.

IN INSTALLATIONS WHERE THE RISK OF PETROLEUM SPILLS IS SMALL, LIQUID CONTAMINANTS MAY NOT ACCUMULATE AS QUICKLY AS SEDIMENT. HOWEVER, THE SYSTEM SHOULD BE CLEANED OUT IMMEDIATELY IN THE EVENT OF AN OIL OR GASOLINE SPILL. MOTOR OIL AND OTHER HYDROCARBONS THAT ACCUMULATE ON A MORE ROUTINE BASIS SHOULD BE REMOVED WHEN AN APPRECIABLE LAYER HAS BEEN CAPTURED. TO REMOVE THESE POLLUTANTS, IT MAY BE PREFERABLE TO USE ABSORBENT PADS SINCE THEY ARE USUALLY LESS EXPENSIVE TO DISPOSE OF THAN THE OIL/WATER EMULSION THAT MAY BE CREATED BY VACUUMING THE OILY LAYER. TRASH AND DEBRIS CAN BE NETTED OUT TO SEPARATE IT FROM THE OTHER POLLUTANTS. THE SCREEN SHOULD BE POWER WASHED TO ENSURE IT IS FREE OF TRASH AND DEBRIS.

MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES TO PREVENT LEAKAGE OF RUNOFF INTO THE SYSTEM FROM ABOVE AND ALSO TO ENSURE THAT PROPER SAFETY PRECAUTIONS HAVE BEEN FOLLOWED. CONFINED SPACE ENTRY PROCEDURES NEED TO BE FOLLOWED IF PHYSICAL ACCESS IS REQUIRED. DISPOSAL OF ALL MATERIAL REMOVED FROM THE SYSTEM SHOULD BE DONE IN ACCORDANCE WITH LOCAL REGULATIONS. IN MANY JURISDICTIONS, DISPOSAL OF THE SEDIMENTS MAY BE HANDLED IN THE SAME MANNER AS THE DISPOSAL OF SEDIMENTS REMOVED FROM CATCH BASINS OR DEEP SUMP MANHOLES.

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5900 Sharon Woods Boulevard Columbus, Ohio 43229
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DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

STORM DETAILS

Drawn : JPE
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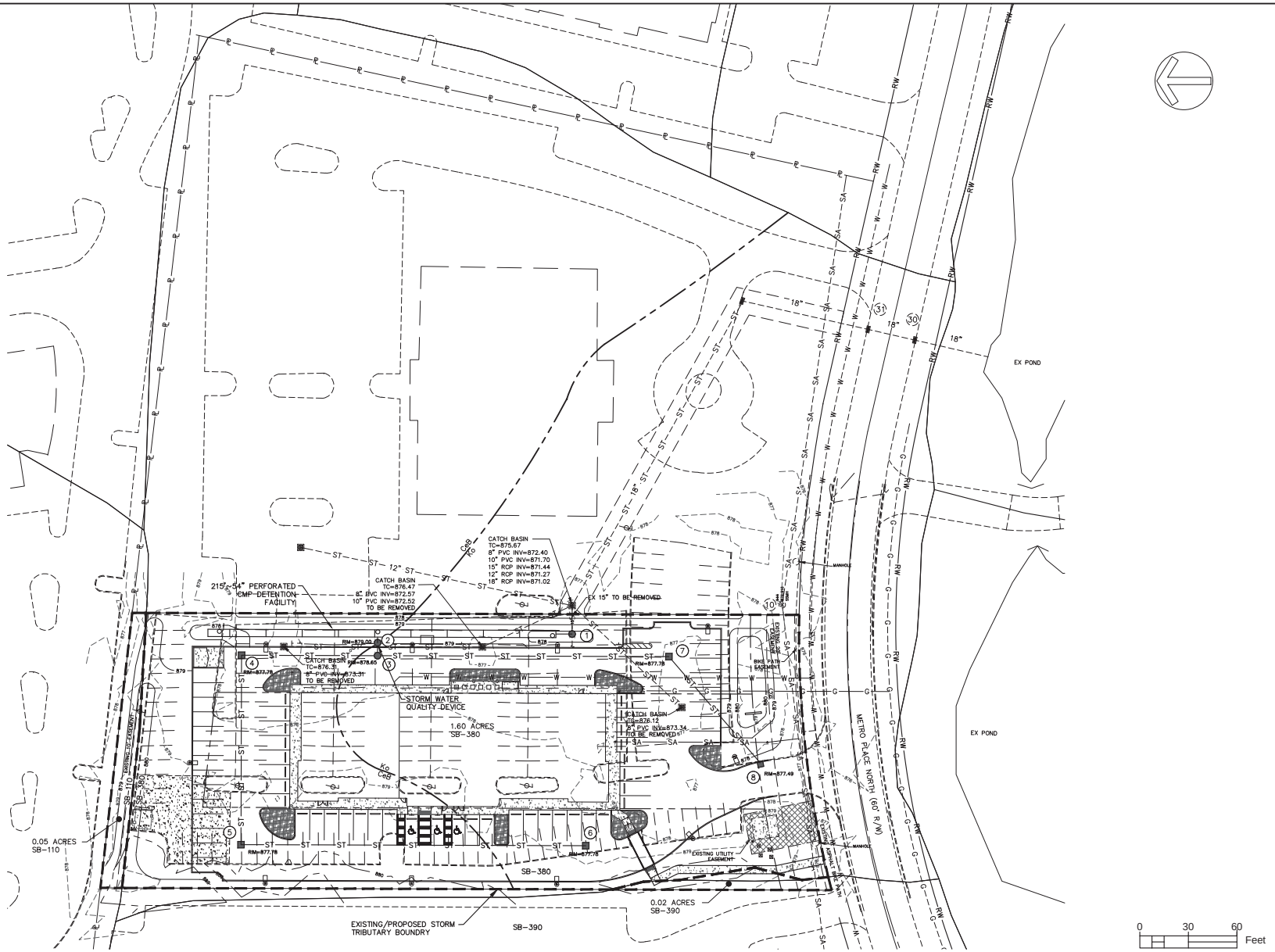
Date : 9.20.2017

Scale : 1"=20'
Project : 16752
Cadd File : Final Development

Sheet No.
C10.3



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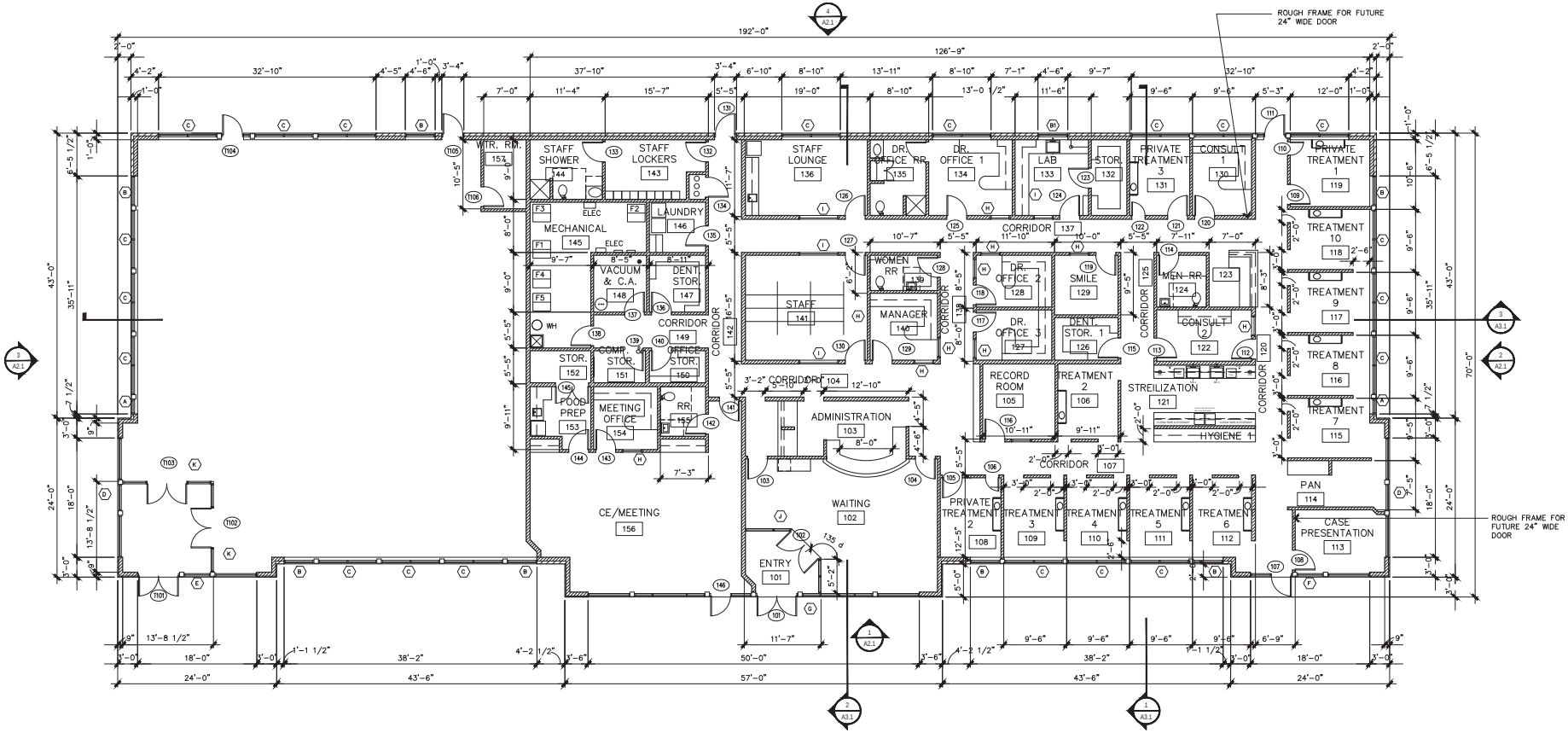
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

STORMWATER MANAGEMENT MAP

Drawn : JPE
Checked : SS
Date : 9.20.2017

Scale : 1"=30'
Project : 16752
Cadd File : Final Development

Sheet No.
C10.4



1 A1.1 FLOOR PLAN

1/8" = 1'-0"

FLOOR PLAN LEGEND

- SECTION (3 / A3.1)
- ELEVATION (3 / A3.1)
- DETAIL (3 / A3.1)
- DOOR NUMBER (103)
- WINDOW TYPE (C)

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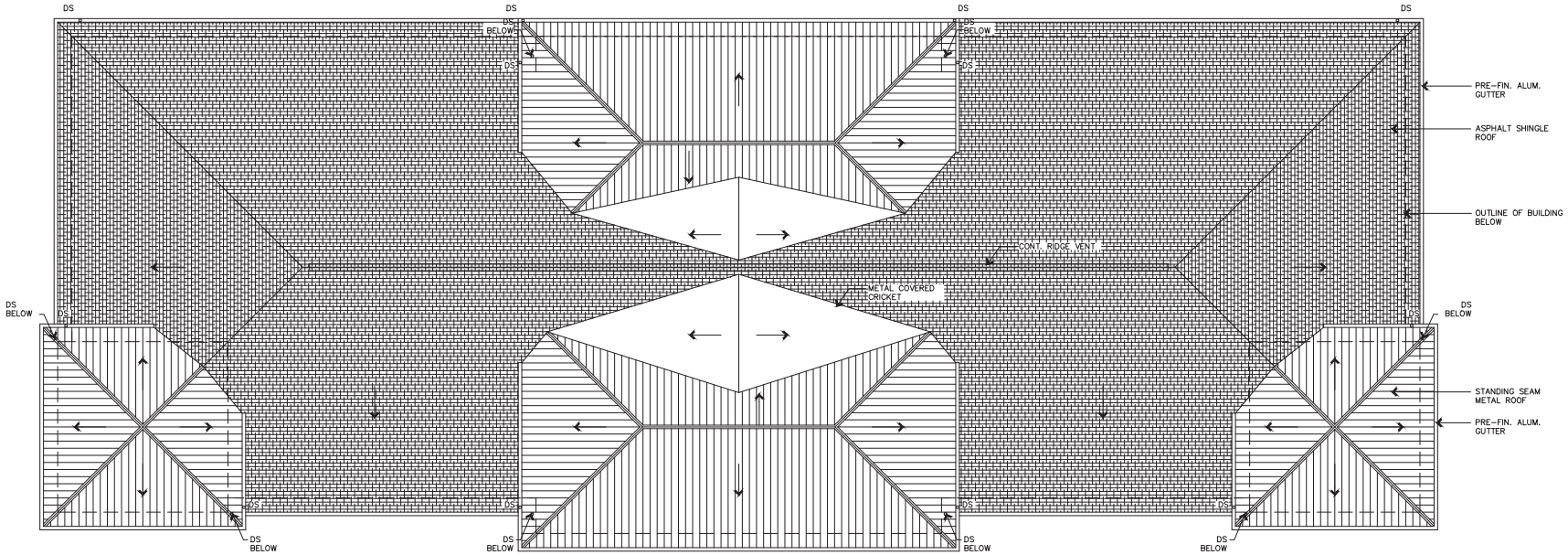
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

ARCHITECTURAL
FLOOR PLAN

STATE OF OHIO — ERIC L. STRIEBICH — E-38864 — REGISTERED ARCHITECT

Drawn	AJO
Checked	SS
Date	9.20.2017
Scale	1/8"=1'-0"
Project	16752
Cadd File	Final Development

Sheet No.
A1.1



1 A1.3 ROOF PLAN
1/8" = 1'-0"

N

ROOF GENERAL NOTES

1. ON ALL ROOFS, INSTALL ICE BARRIER FROM THE LOWEST EDGE TO A POINT AT LEAST 24" INSIDE THE EXTERIOR WALL LINE OF THE BUILDING PER OBC 1507.2.8.2.
2. ROOF COVERING CLASSIFICATION B PER OBC SECTION 1505.
3. ASPHALT SHINGLE CLASSIFICATION D, G, OR H PER OBC TABLE 1507.2.7.1(1).

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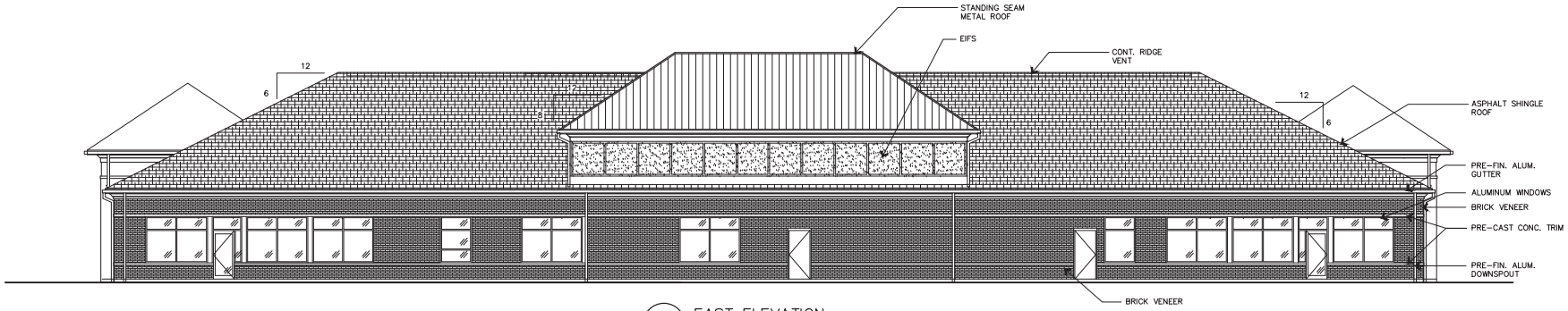
DUBLIN METRO DENTAL
572 Metro Place North
Dublin, Ohio

ARCHITECTURAL
ROOF PLAN

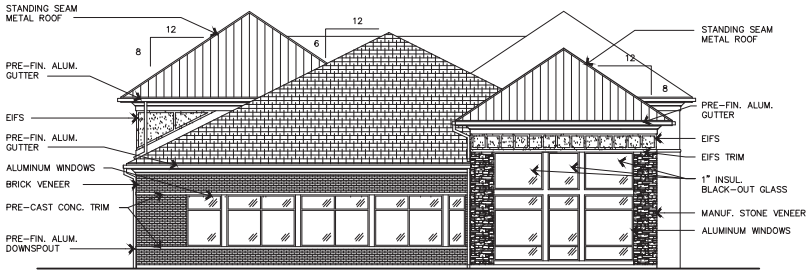
STATE OF OHIO
BRIAN E. SHAW
E-38864
REGISTERED
PROFESSIONAL ENGINEER

Drawn	:	AJO
Checked	:	SS
Date	:	9.20.2017
Scale	:	1/8"=1'-0"
Project	:	16752
Cadd File	:	Final Development

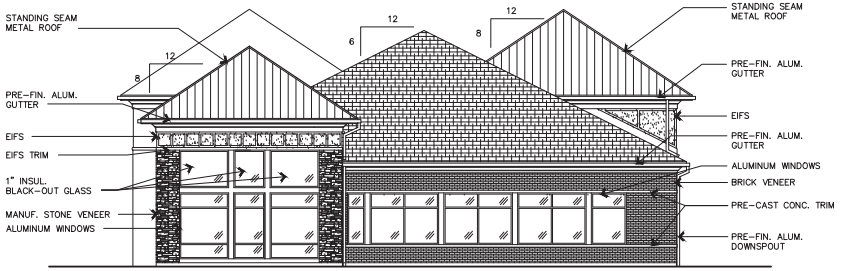
Sheet No.
A1.3



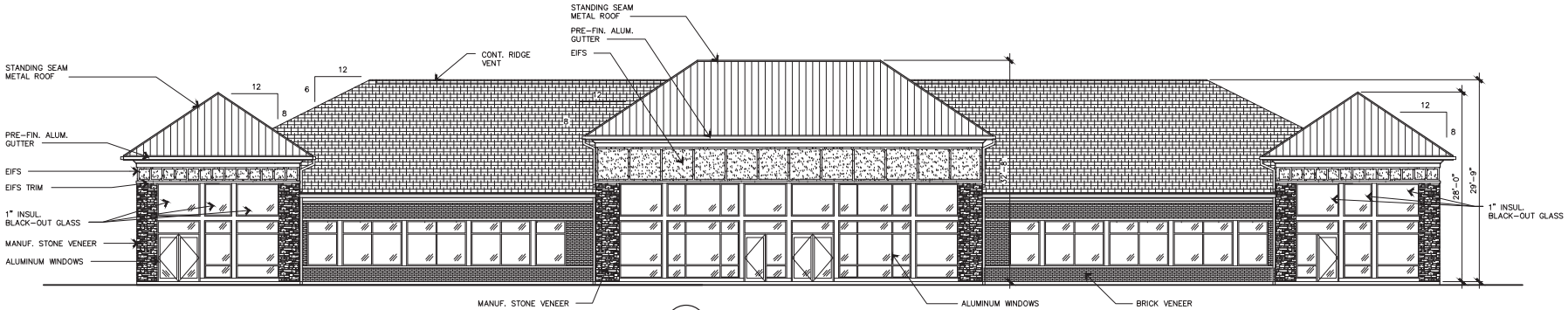
4 A2.1 EAST ELEVATION
1/8" = 1'-0"



3 A2.1 NORTH ELEVATION
1/8" = 1'-0"



2 A2.1 SOUTH ELEVATION
1/8" = 1'-0"



1 A2.1 WEST ELEVATION
1/8" = 1'-0"

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DUBLIN METRO DENTAL
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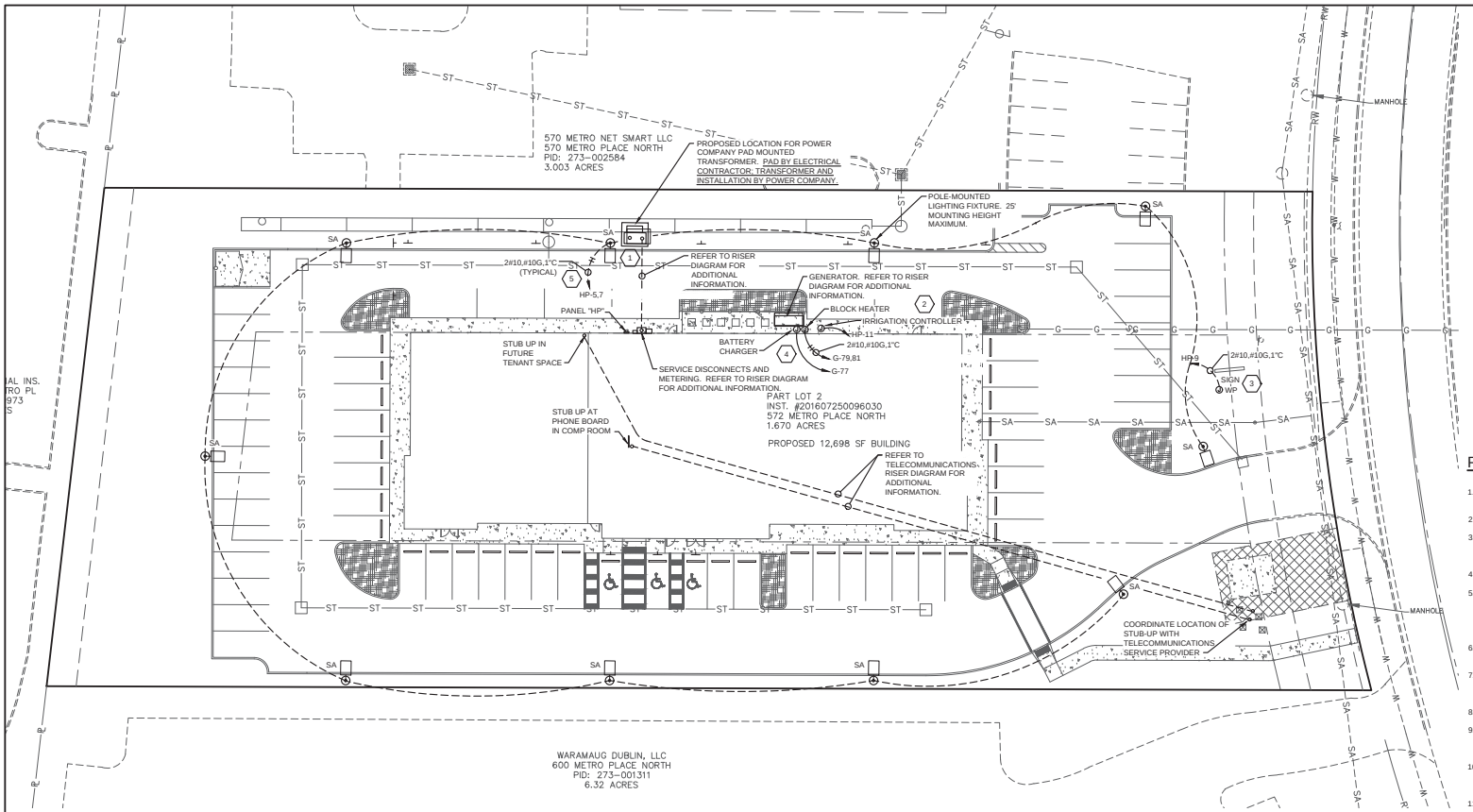
ARCHITECTURAL
EXTERIOR ELEVATIONS

STATE OF OHIO
E-38864
REGISTERED
PROFESSIONAL ENGINEER

Drawn	:	AJO
Checked	:	SS
Date	:	9.20.2017
Scale	:	1/8"=1'-0"
Project	:	16752
Cadd File	:	Final Development

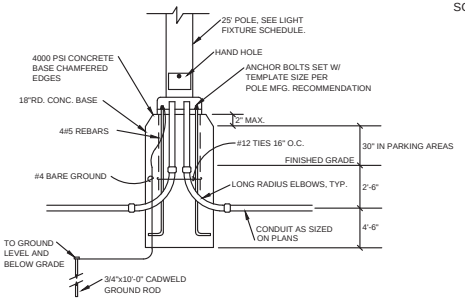
Sheet No.
A2.1



SITE PLAN

SCALE: 1" = 20'-0"

N



POLE MOUNTED FIXTURE BASE DETAIL

SCALE: NO SCALE

SITE PLAN CODED NOTES

1. PROVIDE CLEARANCE AROUND TRANSFORMER PER REQUIREMENTS OF POWER COMPANY.
2. PROVIDE 120V CIRCUIT IN WP J-BOX FOR IRRIGATION CONTROLLER. COORDINATE EXACT LOCATION WITH LANDSCAPE CONTRACTOR.
3. PROVIDE 120V CIRCUIT IN WP J-BOX FOR SIGN. COORDINATE EXACT LOCATION WITH OWNER AND SIGN PROVIDER.
4. CIRCUITS FOR BATTERY CHARGER AND BLOCK HEATER FOR GENERATOR. COORDINATE ACTUAL ELECTRICAL REQUIREMENTS AND STUB-UP LOCATION WITH GENERATOR PROVIDER.
5. CIRCUIT VIA TIMECLOCK/CONTACTOR ADJACENT TO HOUSE PANEL "HP".

SITE PLAN GENERAL NOTES

1. COORDINATE ELECTRICAL SERVICE WITH POWER COMPANY.
2. COORDINATE TELECOMMUNICATIONS POINT OF CONNECTION AND INSTALLATION REQUIREMENTS WITH TELECOMMUNICATIONS SERVICE PROVIDER.

PROJECT ELECTRICAL GENERAL NOTES

1. ALL CONDUCTORS SHALL BE THWN 75° COPPER #12 MINIMUM TRADE SIZE UNLESS OTHERWISE INDICATED.
2. ALL PANEL BOARDS TO BE RATED AT 10,000 AIC UNLESS OTHERWISE NOTED.
3. ALL WIRING SHALL BE IN CONDUIT. ALL CONDUIT SHALL BE EMT , 3/4" MINIMUM TRADE SIZE. MC CABLE SHALL BE PERMITTED FOR USE ON BRANCH CIRCUIT RUNS ONLY.
4. INSTALL PULL WIRE IN ALL EMPTY CONDUITS. INCLUDING IT CONDUIT.
5. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL FEES, AND INSPECTIONS RELATED TO THIS WORK. THIS INCLUDES SUBMITTING CERTIFIED SHOP DRAWINGS FOR FIRE ALARM SYSTEM TO LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL. FIRE ALARM SHOP DRAWINGS SHALL INCLUDE BATTERY CALCULATIONS, FIRE ALARM RISER, AND EQUIPMENT CUT SHEETS.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPED PANEL DIRECTORY FOR EACH PANEL BOARD.
7. ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO OWNER'S REPRESENTATIVE FOR ALL EQUIPMENT THAT IS SPECIFIED OR OTHERWISE SCHEDULED ON THE DRAWINGS.
8. ALL LOW VOLTAGE CABLE SHALL BE PLENUM RATED.
9. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIRE STOPPING ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. THIS SHALL INCLUDE FLOORS AND WALLS.
10. ALL COVER PLATES AND DEVICES ARE TO BE STAINLESS STEEL. ALL RECEPTACLES TO BE HOSPITAL GRADE AND ALL SWITCHES TO BE COMMERCIAL GRADE FOR HOSPITAL USE.
11. ALL NEW RECEPTACLES AND DATA OUTLETS TO BE MOUNTED AT 18" A.F.F UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL INTERIOR ELEVATIONS FOR ADDITIONAL MOUNTING INFORMATION. ALL NEW RECEPTACLES MUST BE HOSPITAL GRADE, NO EXCEPTIONS.
12. ALL NEW GENERATOR POWER OUTLETS SHALL BE RED WITH A RED COVER PLATE, HOSPITAL GRADE.
13. ALL NEW POWER AND DATA LOCATIONS MUST BE COORDINATED WITH THE EQUIPMENT LAYOUTS.
14. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR DATA RACEWAYS ONLY. PROVIDE 3/4" EMPTY CONDUIT WITH PULL STRING STUBBED INTO ACCESSIBLE CEILING FOR DATA WIRING TO BE INSTALLED BY OWNER IN NEW RACEWAYS AND EXISTING CABLE TRAY ABOVE CEILING IN CORRIDORS WHERE AVAILABLE.

SPECIAL GROUNDING AND BONDING NOTE:

1. IF METAL-CLAD (MC) CABLE IS USED FOR BRANCH CIRCUITS, ALL CABLE USED TO SUPPLY RECEPTACLES IN PATIENT CARE AREAS SHALL HAVE AN OUTER METAL ARMOUR OR SHEATH THAT IS IDENTIFIED AS AN ACCEPTABLE GROUNDING RETURN PATH AS WELL AS AN INSULATED GROUNDING CONDUCTOR. CABLE SHALL BE UL LISTED AS HOSPITAL GRADE.
2. ALL RECEPTACLES SHALL BE HOSPITAL GRADE.
3. ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH NEC ARTICLE 517.

ELECTRICAL SYMBOLS & ABBREVIATIONS

NOTE: NOT ALL NECESSARILY USED ON THE PROJECT

- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- SPECIAL POWER REQUIRED
- WP — WATERPROOF
- SS — STAINLESS STEEL
- GFI — GROUND FAULT INTERRUPTER
- C — ABOVE COUNTER
- AFF — ABOVE FINISHED FLOOR
- +48" — HEIGHT ABOVE FINISH FLOOR
- IG — ISOLATED GROUND
- P — PILOT LIGHT
- UNO — UNLESS NOTED OTHERWISE
- SINGLE-GANG FLOOR BOX FOR POWER, DUPLEX RECEPTACLE AND BRASS COVER PLATE.
- DOUBLE-GANG FLOOR BOX FOR POWER AND DATA, DUPLEX RECEPTACLE & BRASS COVER PLATE.
- SINGLE-GANG FLOOR BOX FOR POWER, DUPLEX RECEPTACLE AND BRASS COVER PLATE.
- ELECTRIC PANEL
- TV — TV - PROVIDE BLOCKING. FIELD COORDINATE HEIGHT.
- EMERGENCY LIGHT
- FLUORESCENT LIGHT
- S_M — MANUAL MOTOR STARTER
- S — LIGHT SWITCH
- S_{OS} — WALL SWITCH WITH DUAL TECHNOLOGY OCCUPANCY SENSOR
- S_K — KEY OPERATED SWITCH
- S_D — DIMMER SWITCH
- NL — NIGHT LIGHT
- CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
- R — LIGHTING CONTROL POWER PACK RELAY
- ELECTRIC MOTOR
- T — ELECTRIC THERMOSTAT
- EXIT LIGHT
- J — JUNCTION BOX
- EF — EXHAUST FAN
- DISCONNECT SWITCH
- COMB. STARTER/DISCONNECT
- MOTOR STARTER
- NC — NURSE CALL PULL CORD
- NURSE CALL INDICATOR LIGHT
- CCTV — SECURITY CAMERA
- CR — CARD READER
- WAP — WIRELESS ACCESS POINT. PROVIDE DATA JACK.
- VOICE/DATA/TV JACK WITH 1" EC/PULL STRING STUBBED INTO ACCESSIBLE LOCATION. 18" AFF, UNO.
- W — WALL PHONE JACK WITH 1" EC/PULL STRING STUBBED INTO ACCESSIBLE LOCATION. 48" AFF, UNO.
- WIRE/CONDUCTOR
- HOT WIRE
- NEUTRAL WIRE
- GROUND WIRE
- GROUND (ROD)

FIRE ALARM SYMBOLS

- S — SMOKE DETECTOR
- S_S — SINGLE STATION SMOKE DETECTOR (120 VOLT & BATTERY)
- V — VISUAL ALARM
- H — HEAT DETECTOR
- F — FIRE ALARM PULL STATION
- FIRE ALARM HORN/STROBE
- DAS — DUCT SMOKE DETECTOR
- TS — TAMPER SWITCH
- FS — FLOW SWITCH
- MH — MAGNETIC HOLD-OPEN DEVICE
- FACP — FIRE ALARM CONTROL PANEL
- FAAP — FIRE ALARM ANNUNCIATOR PANEL
- FATC — FIRE ALARM TERMINAL CABINET

NOTE: ITEMS WITH "G" DESIGNATION ARE ON GENERATOR POWER. PROVIDE RED DEVICES AND RED COVERPLATES, INCLUDING WALL SWITCHES FOR LIGHTING CONTROL. PAINT J-BOXES AND DISCONNECT SWITCHES RED FOR GENERATOR CIRCUITS.

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ELECTRICAL SITE PLAN

STATE OF OHIO — JOHN P. ELSASSER — 70000 — REGISTERED PROFESSIONAL ENGINEER

Drawn	: JPE
Checked	: SS
Date	: 9.20.2017
Scale	: 1"=20'
Project	: 16752
Cadd File	: Final Development

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ES1.1