CELTIC CROSSING

Situated in the State of Ohio, County of Union, Jerome Township, City of Dublin and in Virginia Military Survey Number 2925, containing 28.110 acres of land, more or less, said 28.110 acres that tract being all of those tracts of land conveyed to DOMINION HOMES, INC. by deed of record in Official Record 1034, Page 539, Recorder's Office, Union County, Ohio

The undersigned, DOMINION HOMES, INC., an Ohio corporation, by MATTHEW J. CALLAHAN, Vice President of Land Operations, owner of the lands platted hereon, duly authorized in the premises, does hereby certify that this plat correctly represents its "CELTIC CROSSING" a subdivision containing Lots numbered 1 to 44 both inclusive, and areas designated as Reserve "A", Reserve "B", Reserve "C" and Reserve "D", does hereby accept this plat as same and dedicates to public use, as such, all of Celtic Crossing Drive, Nemain Loop, Hylands-Grey Road, Macha Court and Mitchell-Dewitt Road (4.417 acres more or less) shown hereon and not heretofore dedicated.

The undersigned further agrees that any use or improvements on this land shall be in conformity with all existing valid zoning, platting, health or other lawful rules and regulations, including applicable off-street parking and loading requirements of the City of Dublin, Ohio, for the benefit of itself and all other subsequent owners or assigns taking title from, under or through the undersigned.

Easements are hereby reserved in, over and under areas designated on this plat as "Easement," "Drainage Easement," or "Sidewalk Easement." Each of the aforementioned designated easements permit the construction, operation, and maintenance of all public and quasi public utilities above, beneath, and on the surface of the ground and, where necessary, are for the construction, operation, and maintenance of service connections to all adjacent lots and lands and for storm water drainage. Within those areas designated "Drainage Easement" on this plat, an additional easement is hereby reserved for the purpose of constructing, operating and maintaining major storm water drainage swales and/or other above ground storm water drainage facilities. No above grade structures, dams or other obstructions to the flow of storm water runoff are permitted within Drainage Easement areas as delineated on this plat unless approved by the Dublin City Engineer. Within those areas designated "Sidewalk Easement" on this plat, an additional easement is hereby reserved for the construction and maintenance of a sidewalk for use by the public. Easement areas shown hereon outside of the platted area are within lands owned by the undersigned and easements are hereby reserved thereon for the uses and purposes expressed herein.

In Witness Whereof, MATTHEW J. CALLAHAN, Vice President of Land Development of DOMINION HOMES, INC., an Ohio corporation, has hereunto set his hand this ____ day of _____, 20___.

Signed and Acknowledged
In the presence of:

DOMINION HOMES INC.
an Ohio corporation

_____

By _____
MATTHEW J. CALLAHAN,
Vice President of Land
Development

_____

STATE OF OHIO
COUNTY OF FRANKLIN ss:

Before me, a Notary Public in and for said State, personally appeared MATTHEW J. CALLAHAN, Vice President of Land Development of DOMINION HOMES, INC., an Ohio corporation, who acknowledged the signing of the foregoing instrument to be his voluntary act and deed and the voluntary act and deed of said DOMINION HOMES, INC., an Ohio corporation, for the uses and purposes expressed herein.

In Witness Thereof, I have hereunto set my hand and affixed my official seal this ____ day of _____, 20___.

My commission expires _____

_____
Notary Public, State of Ohio

Approved this ____ Day of _____ 20___

_____
Director of Land Use and Long Range Planning
Dublin, Ohio

Approved this ____ Day of _____ 20___

_____
City Engineer, Dublin, Ohio

Approved this ____ day of _____, 20___ by vote of Council, whereon all of the Drive, Loop and Roads dedicated hereon is accepted as such by the Council of the City of Dublin, Ohio

In Witness Thereof I have hereunto set my hand and affixed my seal this ____ day of _____, 20___.

_____
Clerk of Council, Dublin, Ohio

Transferred this ____ day of _____, 20___

_____
Auditor, Union County, Ohio

Filed for record this ___day of _____, 20___ at _____M.
Fee $_____

_____
Recorder, Union County Ohio

File No. _____

Plat Book _____, Pages _____

Celtic Crossing is out of parcel numbers:
38-00240220.000 (25.981 Ac.)
Map Number: 138-00-00-104.000
38-00240210.000 (2.148 Ac.)
Map Number 138-00-00-105.000

LOCATION MAP AND BACKGROUND DRAWING

SCALE: 1" = 1000'

SURVEY DATA

BASIS OF BEARINGS: The bearings shown hereon were transferred from a field traverse originating from and tying to Franklin County Geodetic Survey Control Monuments, including McNeal and FCGS 6648, with a bearing of North 15°07'51" West and are based on the Ohio State Plane Coordinate System, South Zone as per NAD 83 1986 Adjustment, using Global Positioning System procedures and equipment.

SOURCE OF DATA: The sources of recorded survey data referenced on the plan and text of this plat, are the records of the Recorder's Office, Union County Ohio

IRON PINS: Iron pins, where indicated hereon, unless otherwise noted, are to be set and are iron pipes, thirteen sixteenths inch inside diameter, thirty inches long with a plastic plug placed in the top end bearing the initials EMHT INC.

PERMANENT MARKERS: Permanent markers, where indicated hereon, are to be one-inch diameter, thirty-inch long, solid iron pins. Pins are to be set to monument the points indicated and are to be set with the top and flush with the surface of the ground and then capped with an aluminum cap stamped EMHT INC. Once installed, the top of the cap shall be marked (punched) to record the actual location of the point

SURVEYED & PLATTED
BY

EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
emht.com

We do hereby certify that we have surveyed the above premises, prepared the attached plat, and that said plat is correct. All dimensions are in feet and decimal parts thereof.

o = Iron Pin (See Survey Data)
• = MAG Nail to be set
△ = R.R. SPK. to be set
⊙ = Permanent Marker (See Survey Data)

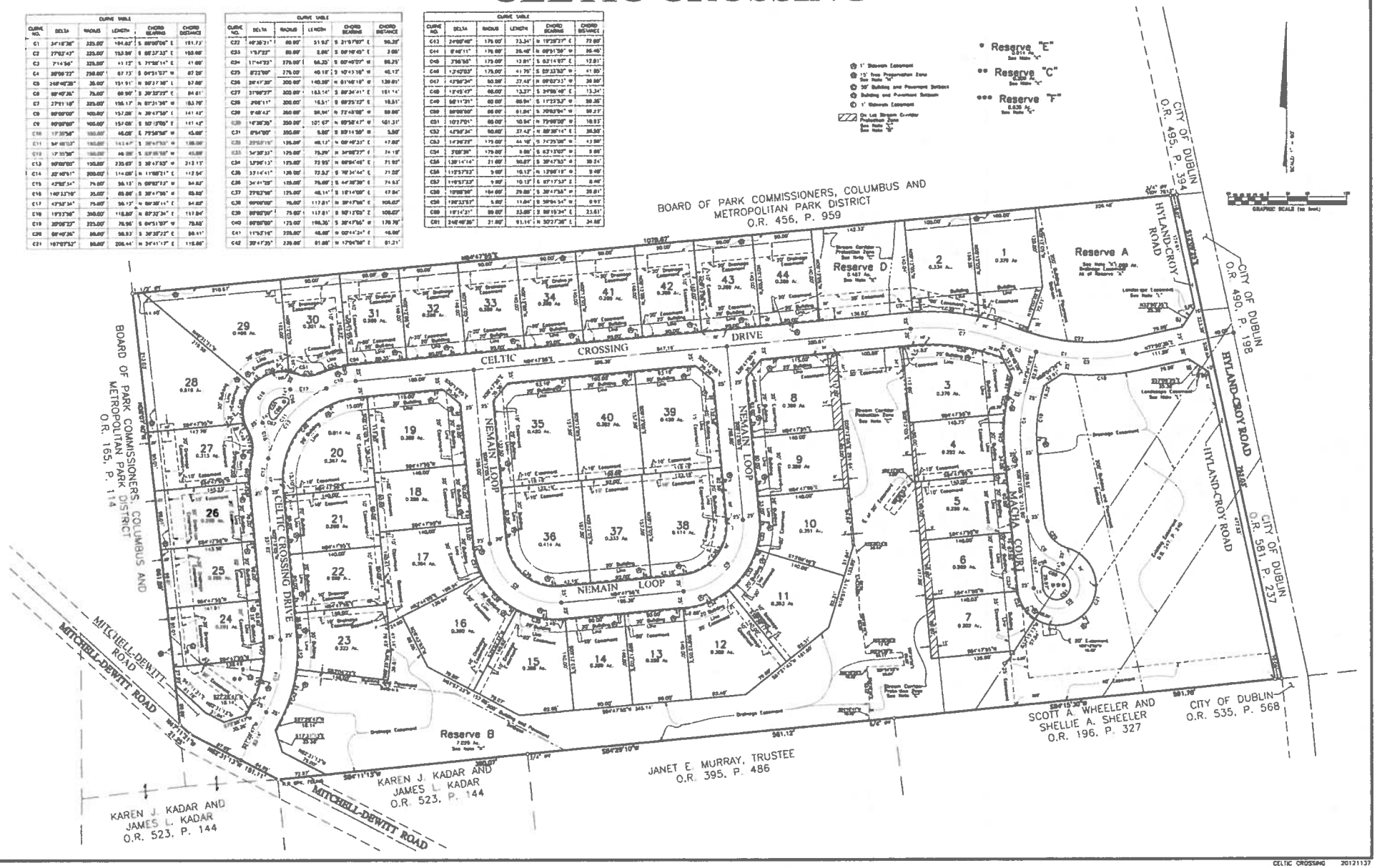
By _____ _____
Professional Surveyor No. 8230 Date

CELTIC CROSSING

CURVE TABLE					
CURVE NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DISTANCE
C1	34°18'38"	325.00'	194.62'	S 88°00'00" E	191.73'
C2	27°52'43"	325.00'	158.06'	S 88°37'32" E	156.60'
C3	7°14'56"	325.00'	41.12'	S 73°38'14" E	41.09'
C4	20°00'22"	290.00'	97.73'	S 64°31'03" W	97.26'
C5	240°46'28"	30.00'	151.91'	N 50°21'38" E	57.00'
C6	90°46'28"	75.00'	68.90'	S 39°32'22" E	64.61'
C7	27°11'18"	325.00'	156.17'	N 87°31'36" W	153.78'
C8	90°00'00"	100.00'	157.08'	N 39°47'38" E	141.42'
C9	90°00'00"	100.00'	157.08'	S 50°12'22" E	141.42'
C10	17°30'56"	100.00'	45.05'	S 75°56'38" W	44.88'
C11	54°46'13"	100.00'	143.47'	S 39°47'38" W	138.09'
C12	17°30'56"	100.00'	45.05'	S 63°26'18" W	44.88'
C13	90°00'00"	120.00'	235.62'	S 39°47'38" W	212.13'
C14	52°46'31"	200.00'	184.08'	N 113°23'21" E	177.64'
C15	42°58'34"	75.00'	56.13'	N 09°02'13" W	54.83'
C16	140°13'16"	35.00'	85.69'	S 39°47'38" E	65.55'
C17	42°58'34"	75.00'	56.13'	N 69°38'46" E	54.83'
C18	119°33'36"	200.00'	418.89'	N 59°32'36" E	347.94'
C19	20°06'22"	225.00'	78.95'	S 69°31'09" W	78.55'
C20	69°46'28"	80.00'	58.93'	S 39°32'22" E	55.41'
C21	167°07'32"	80.00'	208.44'	N 24°41'17" E	115.66'

CURVE TABLE					
CURVE NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DISTANCE
C22	46°30'21"	80.00'	51.93'	S 21°07'07" E	50.53'
C23	1°57'22"	80.00'	2.86'	S 68°16'45" E	2.86'
C24	17°44'33"	275.00'	56.25'	S 60°49'07" W	56.15'
C25	8°22'09"	275.00'	40.16'	S 10°43'18" W	40.13'
C26	26°47'30"	300.00'	140.28'	N 01°46'18" W	139.00'
C27	31°08'27"	300.00'	163.14'	S 08°34'41" E	161.14'
C28	2°06'11"	300.00'	10.51'	S 09°25'22" E	10.51'
C29	9°49'43"	300.00'	50.94'	N 72°43'08" W	50.88'
C30	19°38'28"	300.00'	101.07'	N 60°38'47" W	101.31'
C31	0°54'00"	300.00'	5.66'	S 80°14'38" W	5.66'
C32	37°53'16"	125.00'	82.73'	N 09°49'31" E	81.26'
C33	34°38'33"	125.00'	75.59'	N 34°08'27" E	74.48'
C34	3°29'13"	125.00'	7.59'	N 68°04'45" E	7.59'
C35	33°14'41"	125.00'	72.53'	S 70°34'44" E	71.50'
C36	34°41'28"	125.00'	75.69'	S 44°38'38" E	74.53'
C37	27°53'56"	125.00'	60.86'	S 18°14'00" E	67.24'
C38	69°56'00"	75.00'	117.81'	N 39°47'38" E	106.03'
C39	69°56'00"	75.00'	117.81'	S 69°12'22" E	106.03'
C40	69°56'00"	125.00'	196.35'	S 39°47'38" W	176.78'
C41	11°53'16"	225.00'	46.68'	N 60°44'34" E	46.59'
C42	39°41'35"	225.00'	81.88'	N 17°04'38" E	81.21'

CURVE TABLE					
CURVE NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD DISTANCE
C43	24°09'40"	175.00'	73.34'	N 12°28'27" E	72.80'
C44	6°46'11"	175.00'	20.48'	N 06°51'39" W	20.46'
C45	3°50'55"	175.00'	12.81'	S 02°14'07" E	12.81'
C46	13°40'03"	175.00'	41.75'	S 09°33'32" W	41.65'
C47	43°58'34"	50.00'	37.42'	N 09°02'31" W	36.55'
C48	15°45'47"	50.00'	13.37'	S 34°08'48" E	13.34'
C49	50°11'21"	50.00'	89.94'	S 17°23'32" W	87.06'
C50	50°00'00"	50.00'	87.26'	S 25°00'00" W	84.47'
C51	102°27'01"	50.00'	100.94'	N 73°08'00" W	88.13'
C52	42°58'34"	50.00'	37.42'	N 60°38'16" E	36.55'
C53	14°36'22"	175.00'	44.18'	S 72°25'08" W	43.88'
C54	3°08'38"	175.00'	9.60'	S 67°13'07" W	9.60'
C55	138°14'14"	21.00'	50.67'	S 39°47'38" E	39.24'
C56	112°53'32"	9.00'	18.12'	N 13°06'18" W	9.46'
C57	110°53'32"	9.00'	18.12'	S 67°17'32" E	8.46'
C58	10°08'38"	164.00'	29.00'	S 39°47'38" W	28.81'
C59	196°32'32"	5.00'	17.15'	S 38°54'34" W	9.97'
C60	18°14'31"	69.00'	23.65'	S 88°19'34" E	23.61'
C61	248°46'38"	21.00'	91.14'	N 30°27'38" E	34.66'



CELTIC CROSSING

NOTE "A" - MINIMUM SETBACKS: Zoning regulations for Celtic Crossing in effect at the time of platting specify the following dimensions for the minimum front, side and rear yard setbacks for each lot

Front	As shown hereon
Side Yard	6 feet, 14 feet total
Rear Yard	25 feet

Land zoning regulations and any amendments thereto passed subsequent to acceptance of this plat, should be reviewed to determine the then current requirements. This notice is solely for the purpose of notifying the public of the existence, at the time of platting, of certain zoning regulations applicable to this property. This notice shall not be interpreted as creating plat or subdivision restrictions, private use restrictions covenants running with the land or title encumbrances of any nature, and is for informational purposes only

NOTE "B" - FEMA ZONE: At the time of platting, all of Celtic Crossing is within Zone X (areas determined to be outside the 0.2% annual chance floodplain) as shown on FEMA Flood Insurance Rate Map for Franklin County, Ohio and Incorporated Areas Map Number 39159C0195D, with effective date of December 16, 2008

NOTE "C" - STREAM CORRIDOR PROTECTION ZONE: A definition is contained within the City of Dublin codified ordinance section 53.200 for areas designated as "Stream Corridor Protection Zone."

NOTE "D" - ON LOT STREAM CORRIDOR PROTECTION ZONE:

a. Portions of the Stream Corridor Protection Zone may be placed on individual lots

b. As required by the City of Dublin Zoning Code, no building, structure, fence, patio, recreational or athletic facility, or any other improvement of any kind may be placed temporarily or permanently upon, in or under, the area designated hereon as a "On Lot Stream Corridor Protection Zone," nor shall any work be performed thereon which would alter the natural state of the zone or damage any of the trees or vegetation therein

c. No other tree may be removed from the zone except for the removal of dead, diseased, decayed, or noxious trees and other understory vegetation or as may be required for conservation or in keeping with good forest management practices. Areas without trees or understory vegetation on the lot shall be maintained as lawn

NOTE "E" - FENCES: No fence may be placed in a "No Build Zone", a "No Disturb Zone" or a "Drainage Easement" area. Fences, where permitted in the Celtic Crossing subdivision, are subject to the requirements of the approved zoning development text

NOTE "F" - UTILITY PROVIDERS: Buyers of the lots in the Celtic Crossing subdivision are hereby notified that, at the time of platting, utility service to Celtic Crossing, power is provided by Ohio Edison and telephone service is provided by Frontier Fast and Time Warner

NOTE "G": As per City of Dublin Zoning Code, all lots within Celtic Crossing are subject to the terms, conditions, restrictions (including lighting and home sizes) and special assessment districts as outlined in the preliminary plat entitled "Celtic Crossing" and the development text

NOTE "H" - TREE PRESERVATION ZONE: As required by the City of Dublin Zoning Code, no building, structure, fence, patio, recreational or athletic facility, or any other improvement of any kind may be placed temporarily or permanently upon, in or under, the area designated hereon as a "Tree Preservation Zone", nor shall any work be performed thereon which would alter the natural state of the zone or damage any of the trees or vegetation therein, provided however that the zone may be disturbed to the extent necessary for the installation and maintenance of utilities and drainage facilities, mounding, landscaping and subdivision entrance features. Any part of the zone disturbed by maintenance shall be restored as nearly as practicable to the original condition. Any healthy vegetation or trees removed shall be replaced with like number and variety, no other tree or vegetation may be removed from the zone except for the removal of dead, diseased, decayed, or noxious trees and other vegetation or as may be required for conservation or aesthetic purposes or in keeping with good forest management practices

NOTE "I" - SCHOOL DISTRICT: At the time of platting, all of Celtic Crossing is in the Dublin City School District

NOTE "J" - ACREAGE BREAKDOWN:

Total acreage	28.110 Ac
Acreage in rights-of-way	4.437 Ac.
Acreage in Reserve "A", Reserve "B", Reserve "C", Reserve "D"	8.807 Ac
Acreage in remaining lots	14.866 Ac.

NOTE "K" - RESERVE "A", RESERVE "B", RESERVE "C", RESERVE "D", RESERVE "E" AND RESERVE "F": Reserve "A", Reserve "B", Reserve "C", Reserve "D", Reserve "E" and Reserve "F" as designated and delineated hereon, will be owned by the City of Dublin and maintained by an association comprised of the owners of the fee simple titles to the Lots in Celtic Crossing Subdivision(s) for the purpose of passive open space/storm water detention and any other uses allowed by the then current zoning.

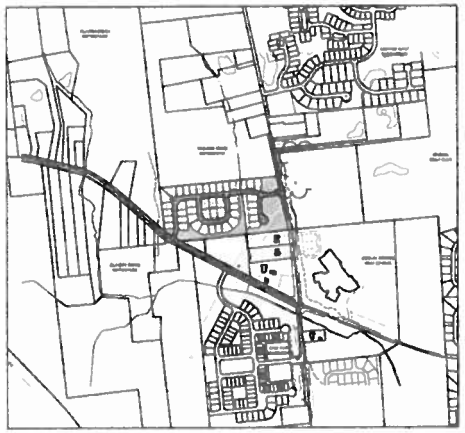
NOTE "L" - LANDSCAPE EASEMENT: Within, over and under the area of land designated hereon as "Landscape Easement", a nonexclusive easement is hereby reserved for the purpose of installing/constructing, operating, using, and maintaining landscaping, landscaping features, and subdivision entrance features therein. Such landscaping, landscaping features, and subdivision entrance features shall be installed/constructed by the developer of Celtic Crossing subdivision(s) and operated, used, and maintained by said developer until such time as an association comprised of the owners of the fee simple titles to the Lots in Celtic Crossing subdivision(s) is formed and funded. Thereafter, said association shall operate, use, and maintain said landscaping, landscaping features, and subdivision entrance features and said association shall have and is hereby granted a nonexclusive right to use said easement areas for said purpose. No developer-installed landscaping, landscaping features, and subdivision identification features shall be removed from said easement areas without the approval of said developer or said developer's designee.

NOTE "M" - BUILDING AND PAVEMENT SETBACKS: The Building and Pavement Setbacks delineated hereon are related to buildings and pavement on the lots as designated hereon. The Building and Pavement Setbacks do not preclude public improvements in the open space reserves.

NOTE "N": At the time of platting, electric, cable, and telephone service providers have not issued information required on that easement areas, in addition to those shown on this plat, as deemed necessary by those providers, for the installation and maintenance of all of their main line facilities, could conveniently be shown on this plat. Existing recorded easement information about Celtic Crossing or any part thereof can be acquired by a competent examination of the then current public records, including those in the Union County Recorder's Office

CELTIC CROSSING

DUBLIN , OHIO



NORTH

REGIONAL CONTEXT

NOT TO SCALE

FINAL DEVELOPMENT PLAN-LANDSCAPE

PREPARED FOR:
DOMINION HOMES
4900 TUTTLE CROSSING BLVD
DUBLIN, OHIO 43016
p: 614-356-5000

P&Z Submittal: June 28, 2013
Revised: August 16, 2013

LANDSCAPE ARCHITECT

EDGE
PLANNING • LANDSCAPE ARCHITECTURE • URBAN DESIGN

330 WEST SPRING STREET, SUITE 350
COLUMBUS, OHIO 43215
614-486-3343

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PROJECT #13025

Date August 16, 2013
Job No. 13023

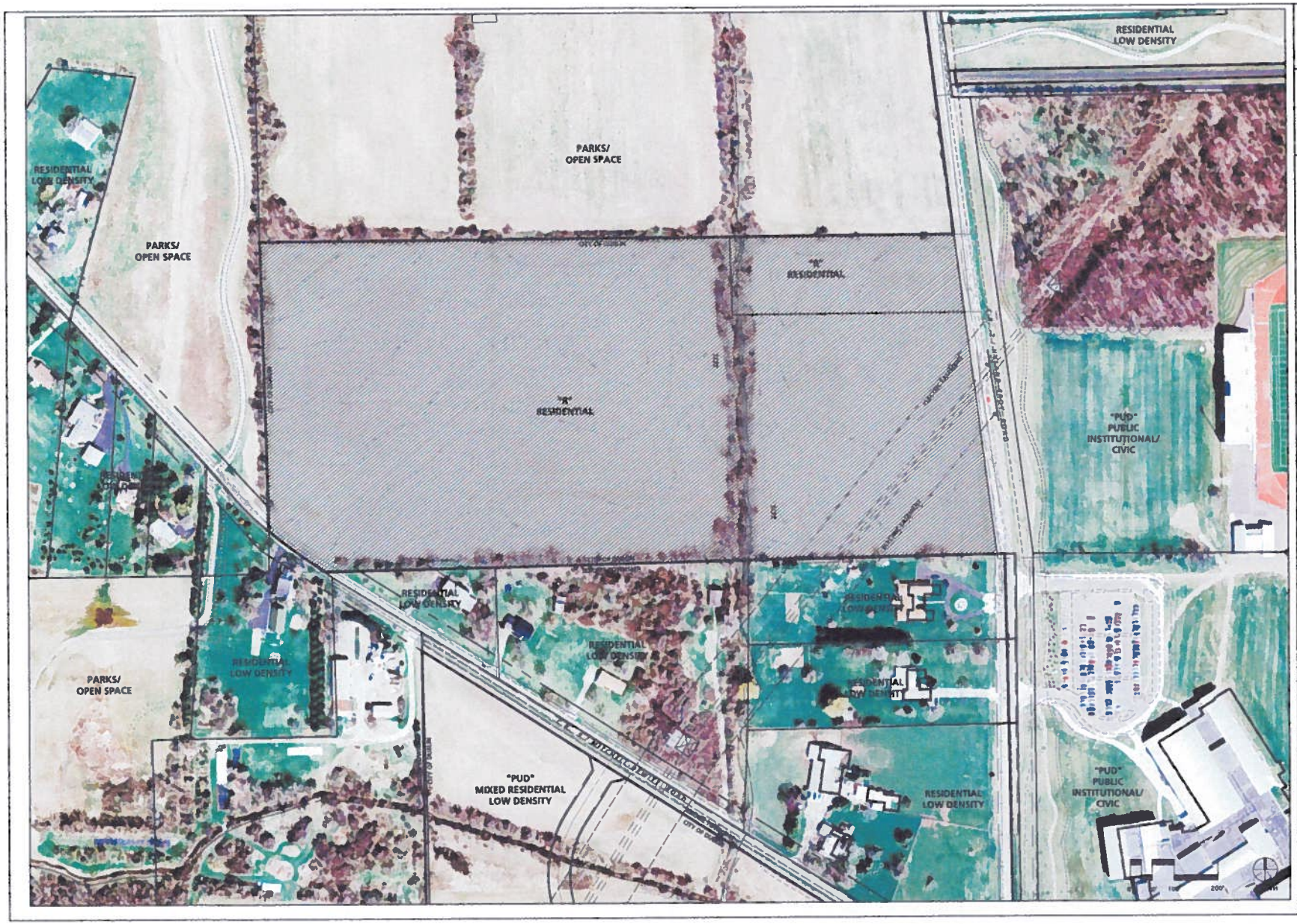
CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

REGIONAL CONTEXT MAP

EDGE

REVISIONS

SHEET FDP
L0.01



Date August 16, 2013
Job No. 13023

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

VICINITY MAP

EDGE

FDP
L0.02

25.961 ACRES

Situated in the State of Ohio, County of Union, Township of Jerome, Virginia Military Survey Number 2975, being all of the remainder of the original 26.19 acre tract conveyed as Tract II to Frieda L. Shire, Trustee (1/3 interest) by deed of record in Official Record 143, Page 142 and Audrey S. Lemmell (1/2 interest) by deed of record in Deed Book 283, Page 353, (all references are to the records of the Recorder's Office, Union County, Ohio) and being more particularly described as follows:

Beginning, for reference, at a railroad spike found at the centerline intersection of Hyland-Cray Road (County Road 9-D) and Mitchell-Dewitt Road (County Road 9-D),

Thence North 03° 17' 24" West, a distance of 1023.30 feet, with the centerline of said Hyland-Cray Road, to a railroad spike found at the common corner of the 0.525 acre tract conveyed to City of Dublin by deed of record in Official Record 581, Page 23.7 and the 0.175 acre tract conveyed to City of Dublin by deed of record in Official Record 535, Page 368, being in a southerly line of said Virginia Military Survey Number 2975,

Thence South 84° 15' 30" West, a distance of 40.25 feet, with the line common to said 0.525 and 0.175 acre tracts, being a southerly line of said Virginia Military Survey Number 2975 to an iron pin set at a common corner of the remainder of said original 26.19 acre tract, said 0.525 and 0.175 acre tracts, and the remainder of the original 2.763 acre tract conveyed to Scott A. and Shellie A. Wheeler by deed of record in Official Record 196, Page 327, said iron pin set being the TRUE POINT OF BEGINNING;

Thence South 84° 15' 30" West, a distance of 591.78 feet, with the northerly line of the remainder of said original 2.763 acre tract, and a southerly line of said Virginia Military Survey Number 2975 to a 5/8" solid iron pipe found at a common corner of the remainder of said original 26.19 acre tract, the remainder of said original 2.763 acre tract, and the 5.609 acre tract conveyed to Janet E. Murray, Trustee under the Janet E. Murray Living Trust by deed of record in Official Record 395, Page 488;

Thence South 84° 29' 10" West, a distance of 561.12 feet, with the northerly line of said 5.609 acre tract, and a southerly line of said Virginia Military Survey Number 2975 to a 3/4" iron pipe found at a common corner of the remainder of said original 26.19 acre tract, said 5.609 acre tract, and the 1.087 acre tract conveyed to Karen J. and James L. Kador by deed of record in Official Record 521, Page 144,

Thence South 84° 11' 13" West, a distance of 380.07 feet, with the northerly line of said 1.087 acre tract, and a southerly line of said Virginia Military Survey Number 2975 to a railroad spike found at a common corner of the remainder of said original 26.19 acre tract and said 1.087 acre tract, being in a northerly line of the 2.885 acre tract conveyed as Parcel II to Markus Moeller by deed of record in Official Record 407, Page 105, and being in the centerline of said Mitchell-Dewitt Road;

Thence North 82° 31' 13" West, a distance of 151.11 feet, with a northerly line of said 2.885 acre tract and the centerline of said Mitchell-Dewitt Road, to a railroad spike set at an angle point in said centerline;

Thence North 47° 11' 21" West, a distance of 21.25 feet, continuing with the centerline of said Mitchell-Dewitt Road and a northerly line of said 2.885 acre tract, to a railroad spike set in an easterly line of the 0.609 acre tract conveyed as Parcel I to Markus Moeller by deed of record in Official Record 407, Page 105, at a common corner of the remainder of said original 26.19 acre tract, and the 70.976 acre tract conveyed to Board of Park Commissioners, Columbus and Franklin County, Metropolitan Park District by deed of record in Official Record 165, Page 114,

Thence North 08° 07' 40" West, a distance of 661.89 feet, with an easterly line of said 70.976 acre tract, to a 1 1/2" iron pipe found at a common corner of the remainder of said original 26.19 acre tract and the 48.103 acre tract conveyed to Board of Park Commissioners, Columbus and Franklin County, Metropolitan Park District by deed of record in Official Record 456, Page 958;

Thence North 84° 47' 55" East, a distance of 1078.67 feet, with a southerly line of said 48.103 acre tract, to an iron pin set at a common corner of the remainder of said original 26.19 acre tract and the remainder of the original 2.31 acre tract conveyed as Tract I to Floyd H. Shire, Trustee by deed of record in Official Record 143, Page 133;

Thence South 08° 41' 05" East, a distance of 178.72 feet, with the east line of the remainder of said original 2.31 acre tract, to an iron pin set;

Thence North 84° 47' 55" East, a distance of 532.45 feet, (passing a 5/8" iron rebar found 1.93 feet North at 21.82 feet) with the south line of the remainder of said original 2.31 acre tract, to an iron pin set at a common corner of the remainder of said original 2.31 acre tract, the remainder of said original 26.19 acre tract, said 0.525 acre tract, and the 0.165 acre tract conveyed to City of Dublin by deed of record in Official Record 490, Page 198, being in the easterly right-of-way line of said Hyland-Cray Road;

Thence South 12° 09' 25" East, a distance of 572.05 feet, with the easterly right-of-way line of said Hyland-Cray Road and the easterly line of said 0.525 acre tract, to the TRUE POINT OF BEGINNING, containing 25.961 acres of land, more or less;

2.149 ACRES

Situated in the State of Ohio, County of Union, Township of Jerome, Virginia Military Survey Number 2975, being all of the remainder of the original 2.31 acre tract conveyed as Tract I to Floyd H. Shire, Trustee by deed of record in Official Record 143, Page 133, (all references are to the records of the Recorder's Office, Union County, Ohio) and being more particularly described as follows:

Beginning, for reference, at a railroad spike found at the centerline intersection of Hyland-Cray Road (County Road 9-D) and Mitchell-Dewitt Road (County Road 9-D),

Thence North 03° 17' 24" West, a distance of 1023.30 feet, with the centerline of said Hyland-Cray Road, to a railroad spike found at the common corner of the 0.525 acre tract conveyed to City of Dublin by deed of record in Official Record 581, Page 23.7 and the 0.175 acre tract conveyed to City of Dublin by deed of record in Official Record 535, Page 368,

Thence North 12° 09' 25" West, a distance of 751.66 feet, continuing with said centerline, to a common corner of said 0.525 acre tract and the 0.165 acre tract conveyed to City of Dublin by deed of record in Official Record 490, Page 198;

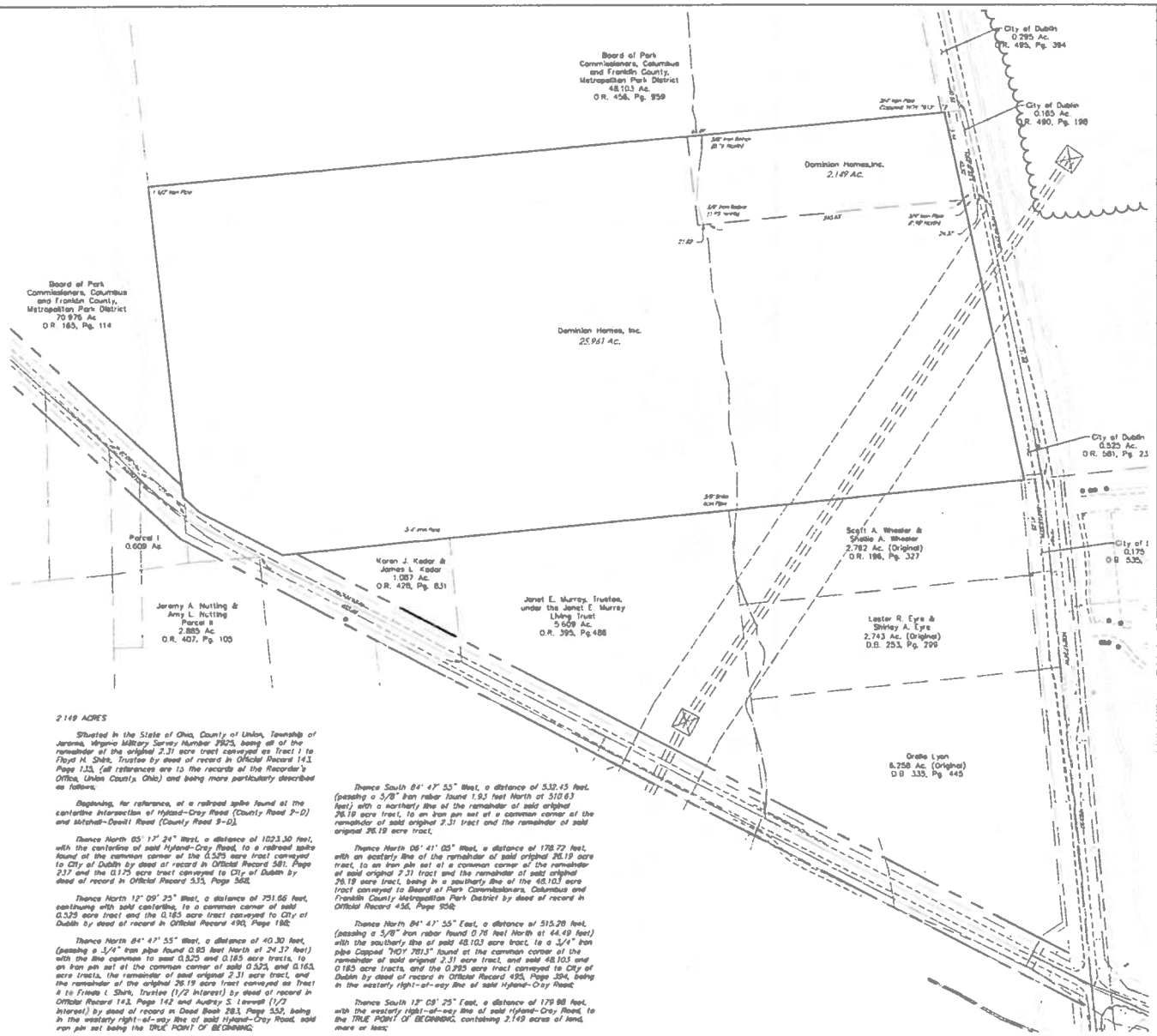
Thence North 84° 47' 55" West, a distance of 40.30 feet, (passing a 1/4" iron pipe found 0.85 feet North at 24.37 feet) with the line common to said 0.525 and 0.165 acre tracts, to an iron pin set at the common corner of said 0.525, and 0.165 acre tracts, the remainder of said original 2.31 acre tract, and the remainder of the original 26.19 acre tract conveyed as Tract II to Frieda L. Shire, Trustee (1/2 interest) by deed of record in Official Record 143, Page 142 and Audrey S. Lemmell (1/2 interest) by deed of record in Deed Book 283, Page 353, being in the westerly right-of-way line of said Hyland-Cray Road, said iron pin set being the TRUE POINT OF BEGINNING;

Thence South 84° 47' 55" West, a distance of 532.45 feet, (passing a 5/8" iron rebar found 1.93 feet North at 510.63 feet) with a northerly line of the remainder of said original 26.19 acre tract, to an iron pin set at a common corner of the remainder of said original 2.31 tract and the remainder of said original 26.19 acre tract;

Thence North 08° 41' 05" West, a distance of 178.72 feet, with an easterly line of the remainder of said original 26.19 acre tract, to an iron pin set at a common corner of the remainder of said original 2.31 tract and the remainder of said original 26.19 acre tract, being in a southerly line of the 48.103 acre tract conveyed to Board of Park Commissioners, Columbus and Franklin County Metropolitan Park District by deed of record in Official Record 456, Page 958;

Thence North 84° 47' 55" East, a distance of 515.28 feet, (passing a 5/8" iron rebar found 0.76 feet North at 44.49 feet) with the southerly line of said 48.103 acre tract, to a 3/4" iron pipe Capped "HOY 7813" found at the common corner of the remainder of said original 2.31 acre tract, and said 48.103 and 0.165 acre tracts, and the 0.295 acre tract conveyed to City of Dublin by deed of record in Official Record 495, Page 394, being in the easterly right-of-way line of said Hyland-Cray Road;

Thence South 12° 09' 25" East, a distance of 179.98 feet, with the easterly right-of-way line of said Hyland-Cray Road, to the TRUE POINT OF BEGINNING, containing 2.149 acres of land, more or less;



Date August 16, 2013
Job No. 13229

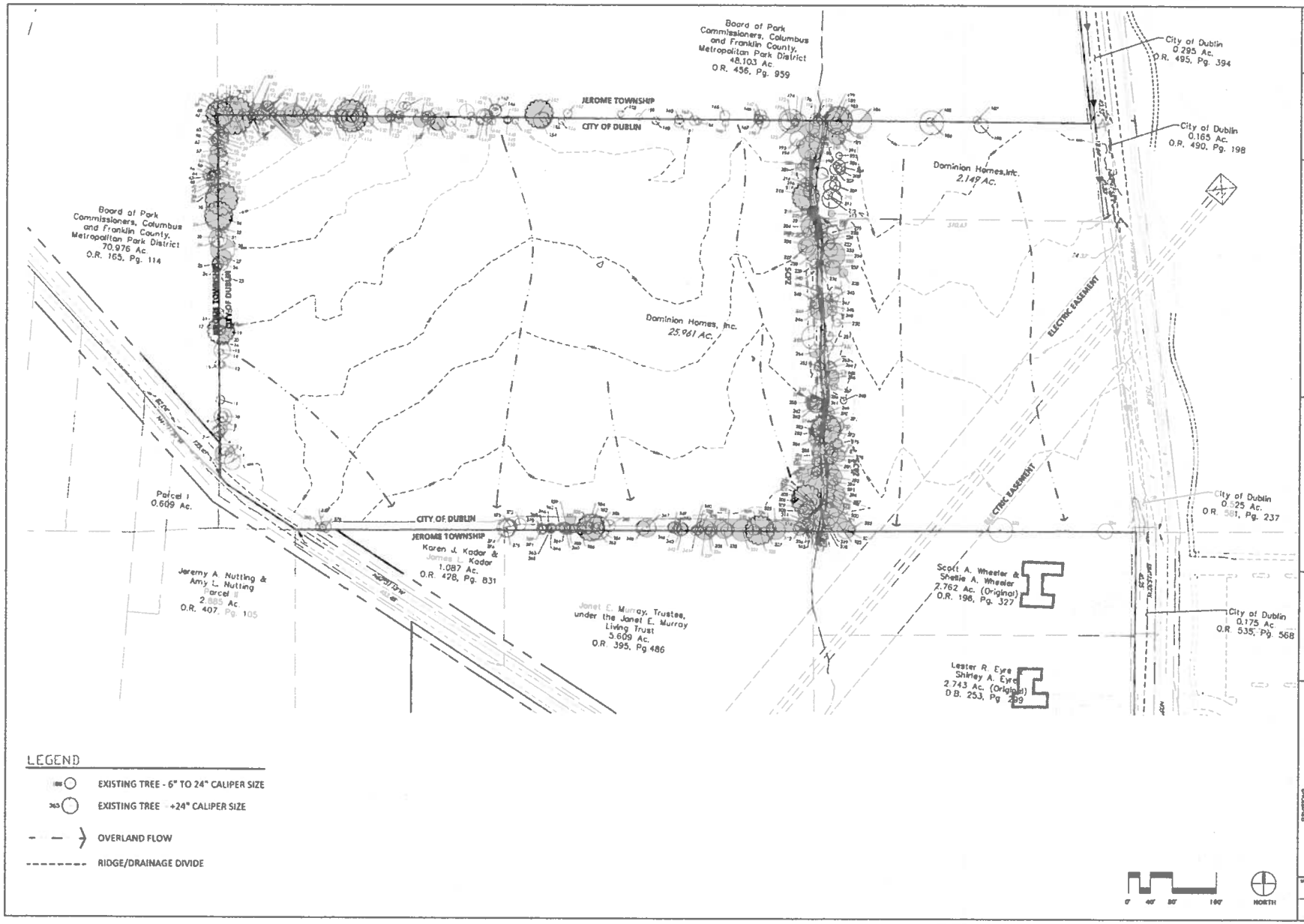
CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

BOUNDARY MAP/ SURVEY

EDGE
Design Group of Central Ohio
140 NORTH HIGH STREET, SUITE 750
COLUMBUS, OHIO 43215
614-486-1141

REVISIONS
NO. DATE DESCRIPTION

SHEET
FDP
L1.01



Date August 14, 2013
Job No 13025

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

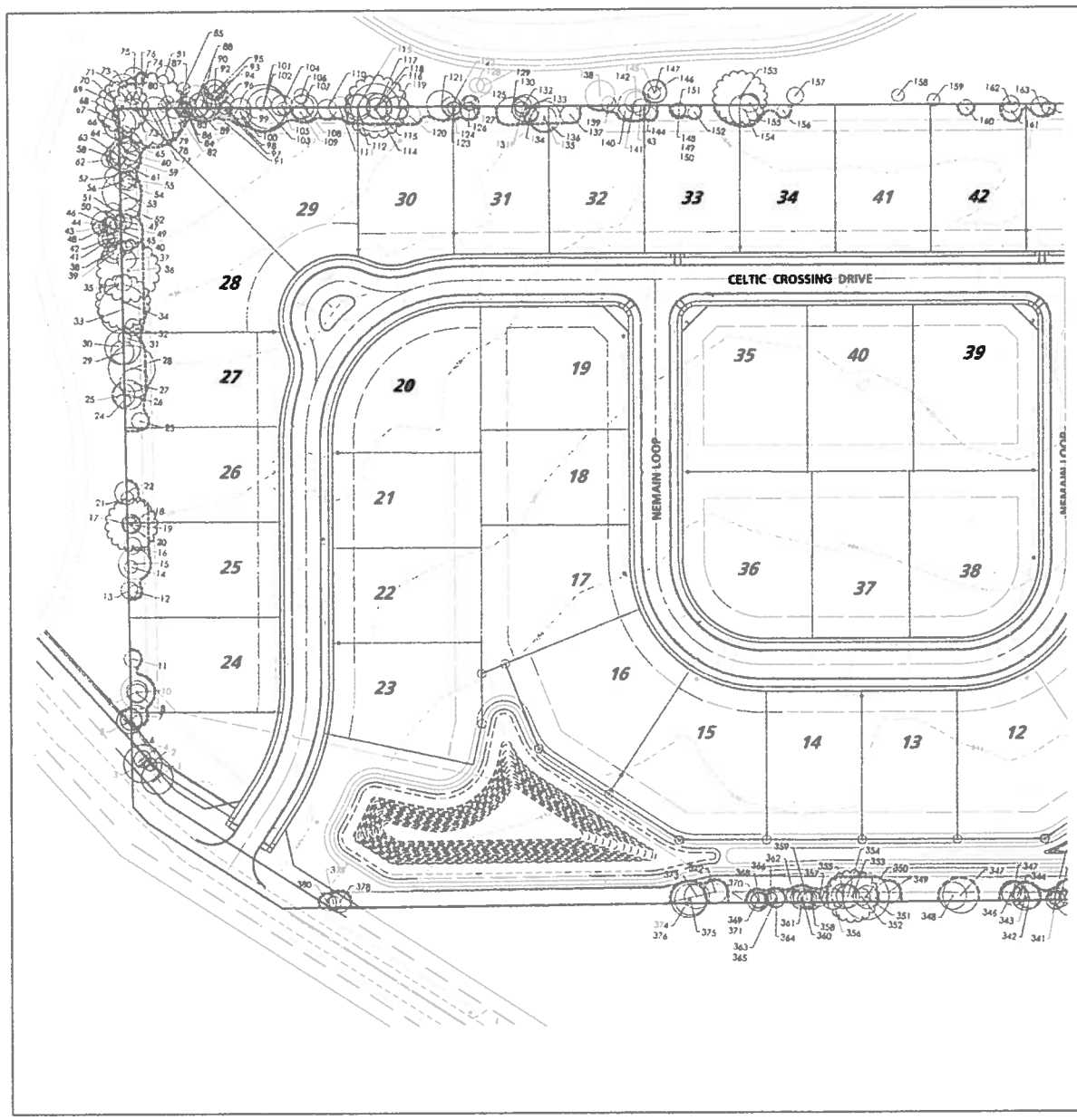
EXISTING CONDITIONS MAP

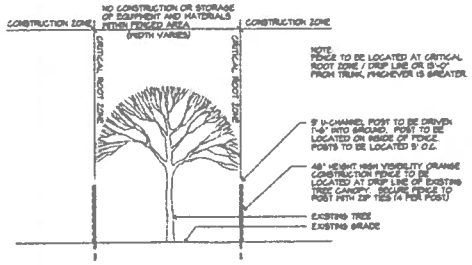
EDGE

REVISIONS

SHEET FDP

L1.02





1 TREE PROTECTION FENCE

NTS

TREE PROTECTION NOTES

1. ALL TREES WITHIN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED, WHETHER SHOWN OR NOT SHOWN ON THE CONSTRUCTION DRAWINGS.
2. 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 MUST BE PROTECTED WITH FENCING PLACED AT THE CRITICAL ROOT ZONE OR 15 FEET, WHICHEVER IS GREATER.
3. TREES NOT INDICATED ON THE APPROVED CONSTRUCTION DRAWINGS FOR REMOVAL MAY NOT BE REMOVED WITHOUT PRIOR APPROVAL OF THE DIVISION OF ENGINEERING.

NOTE:
SEE SHEETS L1.03B, L1.04 & L1.05 FOR A DETAILED TREE SURVEY LIST, REMOVAL ANALYSIS AND REPLACEMENT REQUIREMENT.

LEGEND

- EXISTING TREE TO BE PRESERVED - 6" TO 24" CALIPER SIZE
- EXISTING TREE TO BE PRESERVED - +24" CALIPER SIZE
- EXISTING TREE TO BE REMOVED - 6" TO 24" CALIPER SIZE
- EXISTING TREE TO BE REMOVED - +24" CALIPER SIZE
- TREE PROTECTION FENCE - SEE DETAIL 1 THIS SHEET

0' 25' 50' 100' NORTH

Date: August 16, 2013
Job No. 13025

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

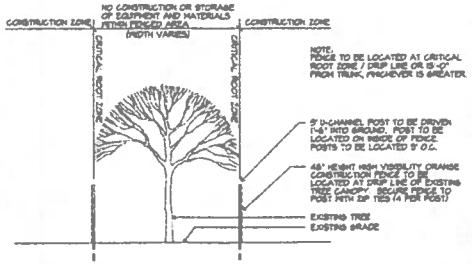
TREE PRESERVATION / TREE REMOVAL PLAN

EDGE

REVISIONS		
No.	DATE	DESCRIPTION

FDP

L1.03



1 TREE PROTECTION FENCE
NTS

TREE PROTECTION NOTES

1. ALL TREES WITHIN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED, WHETHER SHOWN OR NOT SHOWN ON THE CONSTRUCTION DRAWINGS
2. 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 MUST BE PROTECTED WITH FENCING PLACED AT THE CRITICAL ROOT ZONE OR 15 FEET, WHICHEVER IS GREATER.
3. TREES NOT INDICATED ON THE APPROVED CONSTRUCTION DRAWINGS FOR REMOVAL MAY NOT BE REMOVED WITHOUT PRIOR APPROVAL OF THE DIVISION OF ENGINEERING

NOTE:
SEE SHEETS L1.03B, L1.04 & L1.05 FOR A DETAILED TREE SURVEY LIST, REMOVAL ANALYSIS AND REPLACEMENT REQUIREMENT.

LEGEND

- EXISTING TREE TO BE PRESERVED - 6" TO 24" CALIPER SIZE
- EXISTING TREE TO BE PRESERVED - +24" CALIPER SIZE
- EXISTING TREE TO BE REMOVED - 6" TO 24" CALIPER SIZE
- EXISTING TREE TO BE REMOVED - +24" CALIPER SIZE
- TREE PROTECTION FENCE - SEE DETAIL 1, THIS SHEET
- STREAM CORRIDOR PROTECTION ZONE

0' 25' 50' 100' NORTH

Date: August 16, 2013
Job No: 130255

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

TREE PRESERVATION / TREE REMOVAL PLAN

EDGE

REVISIONS

FDP

L1.04

POINT #	DBH"	NAME	CONDITION
1	13	HACKBERRY	FAIR
2	6	HACKBERRY	FAIR
3	16	HACKBERRY	FAIR
4	9	HACKBERRY	FAIR
5	12	BOXELDER	POOR
6	9	BOXELDER	POOR
7	10	HACKBERRY	FAIR
8	9	BOXELDER	POOR
9	13	BOXELDER	POOR
10	16	BOXELDER	DEAD
11	8	SUPPER ELM	GOOD
12	9	BLACK WALNUT	FAIR
13	9	HACKBERRY	FAIR
14	6	HACKBERRY	FAIR
15	13	HACKBERRY	FAIR
16	9	HACKBERRY	FAIR
17	25	HACKBERRY	FAIR
18	9	HACKBERRY	FAIR
19	8	HACKBERRY	FAIR
20	7	HACKBERRY	POOR
21	6	HACKBERRY	POOR
22	11	HACKBERRY	FAIR
23	8	SUPPER ELM	FAIR
24	7	SUPPER ELM	GOOD
25	11	PECAN	FAIR
26	16	PECAN	FAIR
27	14	PECAN	FAIR
28	22	NA	DEAD
29	21	PECAN	GOOD
30	17	PECAN	GOOD
31	9	HACKBERRY	GOOD
32	8	WILD BLACK CHERRY	POOR
33	23	HACKBERRY	FAIR
34	26	HACKBERRY	FAIR
35	4	BOXELDER	POOR
36	30	BOXELDER	DEAD
37	9	PECAN	POOR
38	10	WILD BLACK CHERRY	POOR
39	10	WILD BLACK CHERRY	POOR
40	6	BLACK WALNUT	GOOD
41	9	WILD BLACK CHERRY	DEAD
42	6	PECAN	POOR
43	9	WILD BLACK CHERRY	POOR
44	4	HACKBERRY	GOOD
45	17	SUPPER ELM	GOOD
46	19	SUPPER ELM	DEAD
47	8	WILD BLACK CHERRY	POOR
48	8	GREEN ASH	POOR
49	16	GREEN ASH	DEAD
50	9	GREEN ASH	DEAD
51	7	GREEN ASH	DEAD
52	18	HACKBERRY	FAIR
53	18	RED OAK	GOOD
54	7	WILD BLACK CHERRY	FAIR
55	6	HACKBERRY	FAIR
56	9	WILD BLACK CHERRY	FAIR
57	8	GREEN ASH	DEAD
58	8	GREEN ASH	POOR
59	14	WILD BLACK CHERRY	DEAD
60	14	WILD BLACK CHERRY	DEAD
61	6	HACKBERRY	FAIR
62	9	GREEN ASH	POOR
63	10	GREEN ASH	POOR
64	7	WILD BLACK CHERRY	FAIR
65	9	WILD BLACK CHERRY	FAIR
66	9	WILD BLACK CHERRY	GOOD
67	16	CHINKAPIN OAK	DEAD
68	6	WILD BLACK CHERRY	FAIR
69	26	CHINKAPIN OAK	POOR
70	16	NA	DEAD

POINT #	DBH"	NAME	CONDITION
71	15	WILD BLACK CHERRY	FAIR
72	6	CHINKAPIN OAK	GOOD
73	6	NA	DEAD
74	8	WILD BLACK CHERRY	POOR
75	9	SUGAR MAPLE	GOOD
76	6	SUPPER ELM	GOOD
77	20	CHINKAPIN OAK	GOOD
78	12	WILD BLACK CHERRY	FAIR
79	8	WILD BLACK CHERRY	POOR
80	6	WILD BLACK CHERRY	POOR
81	15	RED OAK	FAIR
82	8	SUGAR MAPLE	GOOD
83	7	WILD BLACK CHERRY	FAIR
84	7	WILD BLACK CHERRY	POOR
85	8	BOXELDER	POOR
86	8	GREEN ASH	POOR
87	10	WILD BLACK CHERRY	POOR
88	15	RED OAK	GOOD
89	8	WILD BLACK CHERRY	FAIR
90	13	WILD BLACK CHERRY	DEAD
91	12	CHINKAPIN OAK	FAIR
92	12	GREEN ASH	POOR
93	8	GREEN ASH	POOR
94	12	NA	DEAD
95	7	SUPPER ELM	POOR
96	9	GREEN ASH	POOR
97	7	WILD BLACK CHERRY	FAIR
98	6	WILD BLACK CHERRY	FAIR
99	10	NA	DEAD
100	8	SUGAR MAPLE	GOOD
101	7	WILD BLACK CHERRY	FAIR
102	22	CHINKAPIN OAK	FAIR
103	19	GREEN ASH	POOR
104	12	WILD BLACK CHERRY	FAIR
105	4	WILD BLACK CHERRY	FAIR
106	7	WILD BLACK CHERRY	FAIR
107	7	WILD BLACK CHERRY	FAIR
108	11	WILD BLACK CHERRY	DEAD
109	13	WILD BLACK CHERRY	DEAD
110	9	GREEN ASH	DEAD
111	10	WILD BLACK CHERRY	POOR
112	13	WILD BLACK CHERRY	FAIR
113	11	WILD BLACK CHERRY	FAIR
114	29	SUPPER ELM	GOOD
115	16	SUPPER ELM	GOOD
116	13	SUPPER ELM	GOOD
117	10	SUPPER ELM	GOOD
118	20	RED OAK	GOOD
119	11	WILD BLACK CHERRY	GOOD
120	12	RED MULBERRY	FAIR
121	14	SUPPER ELM	FAIR
122	9	WILD BLACK CHERRY	FAIR
123	8	WILD BLACK CHERRY	POOR
124	6	WILD BLACK CHERRY	POOR
125	7	WILD BLACK CHERRY	POOR
126	8	BOXELDER	FAIR
127	7	WILD BLACK CHERRY	POOR
128	7	RED OAK	GOOD
129	7	RED OAK	GOOD
130	14	BOXELDER	FAIR
131	7	HACKBERRY	FAIR
132	6	WILD BLACK CHERRY	FAIR
133	12	HACKBERRY	FAIR
134	7	SUPPER ELM	DEAD
135	15	BLACK WALNUT	GOOD
136	13	BLACK WALNUT	GOOD
137	6	BLACK WALNUT	GOOD
138	7	SUPPER ELM	DEAD
139	15	BLACK WALNUT	GOOD
140	12	BLACK WALNUT	GOOD
141	15	HACKBERRY	POOR
142	10	HACKBERRY	FAIR
143	9	HACKBERRY	FAIR
144	4	SUPPER ELM	FAIR
145	6	WILD BLACK CHERRY	POOR
146	11	WILD BLACK CHERRY	POOR
147	11	WILD BLACK CHERRY	POOR
148	6	AMERICAN CRABAPPLE	FAIR
149	5	AMERICAN CRABAPPLE	FAIR
150	6	AMERICAN CRABAPPLE	FAIR
151	7	AMERICAN CRABAPPLE	FAIR
152	4	AMERICAN CRABAPPLE	FAIR
153	30	BOXELDER	POOR
154	15	SUPPER ELM	FAIR
155	5	WILD BLACK CHERRY	POOR
156	8	BOXELDER	POOR
157	8	BOXELDER	POOR
158	6	NA	DEAD
159	8	RED OAK	GOOD
160	7	BLACK WALNUT	GOOD
161	9	CHERRY PLUM	GOOD
162	6	WILD BLACK CHERRY	POOR
163	9	WILD BLACK CHERRY	DEAD
164	6	WILD BLACK CHERRY	DEAD
165	9	BOXELDER	POOR
166	6	RED MULBERRY	FAIR
167	11	SUPPER ELM	DEAD
168	8	HACKBERRY	FAIR
169	8	HACKBERRY	FAIR
170	12	SUPPER ELM	GOOD
171	15	HACKBERRY	FAIR
172	22	HACKBERRY	FAIR
173	7	RED OAK	GOOD
174	7	HACKBERRY	GOOD
175	8	HACKBERRY	GOOD
176	13	HACKBERRY	FAIR
177	12	SUPPER ELM	GOOD
178	8	SUPPER ELM	FAIR
179	14	WILD BLACK CHERRY	FAIR
180	21	WHITE ASH	FAIR
181	26	WHITE ASH	FAIR
182	7	SUPPER ELM	FAIR
183	11	WILD BLACK CHERRY	DEAD
184	23	WHITE ASH	GOOD
185	8	BLACK WALNUT	GOOD
186	22	RED MULBERRY	FAIR
187	7	HACKBERRY	GOOD
188	13	WILD BLACK CHERRY	GOOD
189	7	AMERICAN CRABAPPLE	GOOD
190	18	BLACK WALNUT	FAIR
191	12	BLACK WALNUT	GOOD
192	13	BLACK WALNUT	FAIR
193	16	SUPPER ELM	FAIR
194	6	SUPPER ELM	GOOD
195	8	BLACK WALNUT	GOOD
196	23	BOXELDER	POOR
197	20	HACKBERRY	GOOD
198	10	WILD BLACK CHERRY	DEAD
199	13	SUPPER ELM	FAIR
200	13	BLACK WALNUT	FAIR
201	6	BLACK WALNUT	GOOD
202	6	BLACK WALNUT	GOOD
203	8	RED MULBERRY	POOR
204	31	WHITE ASH	FAIR
205	6	WILD BLACK CHERRY	POOR
206	9	WILD BLACK CHERRY	DEAD
207	10	HACKBERRY	GOOD
208	10	HACKBERRY	GOOD
209	10	HACKBERRY	GOOD
210	13	HACKBERRY	FAIR
211	13	HACKBERRY	FAIR
212	8	HACKBERRY	FAIR
213	13	HACKBERRY	FAIR
214	13	HACKBERRY	FAIR
215	8	BLACK WALNUT	FAIR
216	9	BLACK WALNUT	FAIR
217	10	HACKBERRY	POOR
218	8	HACKBERRY	POOR
219	9	WILD BLACK CHERRY	DEAD
220	7	BLACK WALNUT	GOOD
221	9	BLACK WALNUT	FAIR
222	9	BLACK WALNUT	FAIR
223	22	BLACK WALNUT	FAIR
224	12	WILD BLACK CHERRY	POOR
225	9	BLACK WALNUT	FAIR
226	10	BLACK WALNUT	FAIR
227	7	HACKBERRY	FAIR
228	8	HACKBERRY	FAIR
229	6	BLACK WALNUT	FAIR
230	13	BLACK WALNUT	FAIR
231	16	HACKBERRY	GOOD
232	8	HACKBERRY	FAIR
233	13	NA	DEAD
234	23	RED OAK	GOOD
235	7	HACKBERRY	GOOD
236	9	PECAN	GOOD
237	14	BLACK WALNUT	FAIR
238	8	RED OAK	GOOD
239	9	PECAN	FAIR
240	7	HACKBERRY	FAIR
241	10	SUPPER ELM	POOR
242	11	BLACK WALNUT	FAIR
243	12	BLACK WALNUT	FAIR
244	20	BLACK WALNUT	FAIR
245	6	WILD BLACK CHERRY	POOR
246	8	PECAN	FAIR
247	7	WILD BLACK CHERRY	POOR
248	6	WILD BLACK CHERRY	POOR
249	5	WILD BLACK CHERRY	DEAD
250	7	BLACK WALNUT	GOOD
251	9	BLACK WALNUT	FAIR
252	9	BLACK WALNUT	FAIR
253	23	SILVER MAPLE	FAIR
254	12	WILD BLACK CHERRY	POOR
255	9	BLACK WALNUT	FAIR
256	10	BLACK WALNUT	FAIR
257	6	HACKBERRY	FAIR
258	15	BOXELDER	POOR
259	10	BOXELDER	POOR
260	14	HACKBERRY	FAIR
261	11	HACKBERRY	FAIR
262	13	HACKBERRY	FAIR
263	7	HACKBERRY	FAIR
264	23	HACKBERRY	POOR
265	14	HACKBERRY	FAIR
266	8	BLACK WALNUT	FAIR
267	6	BLACK WALNUT	FAIR
268	14	AMERICAN ELM	DEAD
269	8	AMERICAN ELM	POOR
270	15	AMERICAN ELM	FAIR
271	6	WILD BLACK CHERRY	POOR
272	27	SUGAR MAPLE	GOOD
273	12	SUPPER ELM	FAIR
274	9	BLACK WALNUT	GOOD
275	8	BOXELDER	DEAD
276	10	BLACK WALNUT	FAIR
277	12	BLACK WALNUT	FAIR
278	13	HACKBERRY	FAIR
279	15	HACKBERRY	FAIR
280	3	HACKBERRY	FAIR

POINT #	DBH"	NAME	CONDITION
281	11	WILD BLACK CHERRY	POOR
282	7	BLACK WALNUT	POOR
283	6	RED OAK	GOOD
284	18	HACKBERRY	POOR
285	8	CATALPA	FAIR
286	7	WILD BLACK CHERRY	DEAD
287	9	WILD BLACK CHERRY	POOR
288	17	SILVER MAPLE	FAIR
289	7	SILVER MAPLE	FAIR
290	8	HACKBERRY	FAIR
291	9	HACKBERRY	FAIR
292	7	WILD BLACK CHERRY	POOR
293	15	SUPPER ELM	FAIR
294	14	HACKBERRY	FAIR
295	7	SUPPER ELM	FAIR
296	6	HACKBERRY	FAIR
297	11	BLACK WALNUT	GOOD
298	19	BLACK WALNUT	FAIR
299	6	HACKBERRY	POOR
300	20	HACKBERRY	POOR
301	21	BLACK WALNUT	FAIR
302	28	SILVER MAPLE	FAIR
303	16	HACKBERRY	FAIR
304	7	HACKBERRY	FAIR
305	7	HACKBERRY	FAIR
306	13	HACKBERRY	FAIR
307	7	HACKBERRY	FAIR
308	12	HACKBERRY	FAIR
309	12	HACKBERRY	FAIR
310	16	HACKBERRY	FAIR
311	16	AMERICAN ELM	POOR
312	8	HACKBERRY	FAIR
313	11	HACKBERRY	FAIR
314	12	BLACK WALNUT	FAIR
315	13	BLACK WALNUT	FAIR
316	9	HACKBERRY	FAIR
317	11	BLACK WALNUT	FAIR
318	10	HACKBERRY	POOR
319	11	BLACK WALNUT	GOOD
320	14	HACKBERRY	FAIR
321	14	HACKBERRY	GOOD
322	7	HACKBERRY	GOOD
323	30	BOXELDER	FAIR
324	14	HACKBERRY	GOOD
325	17	HACKBERRY	FAIR
326	7	WILD BLACK CHERRY	POOR
327	8	HACKBERRY	POOR
328	27	HACKBERRY	GOOD
329	6	WILD BLACK CHERRY	POOR
330	10	WILD BLACK CHERRY	FAIR
331	20	HACKBERRY	GOOD
332	13	HACKBERRY	GOOD
333	13	WILD BLACK CHERRY	POOR
334	11	HACKBERRY	GOOD
335	9	HACKBERRY	FAIR
336	7	HACKBERRY	FAIR
337	8	HACKBERRY	FAIR
338	4	HACKBERRY	POOR
339	9	WILD BLACK CHERRY	FAIR
340	6	HACKBERRY	FAIR
341	7	HACKBERRY	FAIR
342	11	HACKBERRY	FAIR
343	13	HACKBERRY	FAIR
344	7	HACKBERRY	POOR
345	11	HACKBERRY	FAIR
346	9	HACKBERRY	POOR
347	11	HACKBERRY	POOR
348	12	WILD BLACK CHERRY	DEAD
349	11	HACKBERRY	GOOD
350	12	HACKBERRY	GOOD

POINT #	DBH"	NAME	CONDITION
351	11	HACKBERRY	GOOD
352	8	WILD BLACK CHERRY	POOR
353	25	SUGAR MAPLE	FAIR
354	11	HACKBERRY	FAIR
355	12	HACKBERRY	GOOD
356	10	HACKBERRY	POOR
357	8	HACKBERRY	FAIR
358	9	HACKBERRY	FAIR
359	9	HACKBERRY	FAIR
360	9	HACKBERRY	FAIR
361	8	HACKBERRY	FAIR
362	7	HACKBERRY	FAIR
363	8	HACKBERRY	FAIR
364	9	HACKBERRY	FAIR
365	6	HACKBERRY	FAIR
366	9	HACKBERRY	FAIR
367	11	HACKBERRY	FAIR
368	13	HACKBERRY	FAIR
369	10	HACKBERRY	FAIR
370	7	HACKBERRY	FAIR
371	10	AMERICAN CRABAPPLE	FAIR
372	12	HACKBERRY	POOR
373	11	AMERICAN CRABAPPLE	FAIR
374	13	HACKBERRY	FAIR
375	16	AMERICAN ELM	POOR
376	8	HACKBERRY	FAIR
377	9	HACKBERRY	FAIR
378	12	HACKBERRY	FAIR
379	7	RED MULBERRY	FAIR
380	6	RED MULBERRY	FAIR
TOTAL	6166		

Note:

* TREES IDENTIFIED FOR REMOVAL

TREE REMOVAL AND REPLACEMENT ANALYSIS

TOTAL REMOVAL	594
REMOVAL - DEAD OR POOR COND	108
TOTAL REPLACEMENT REQUIREMENT	396*

Date: August 16, 2013
Job No: 13075

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

TREE SURVEY / TREE REMOVAL LIST

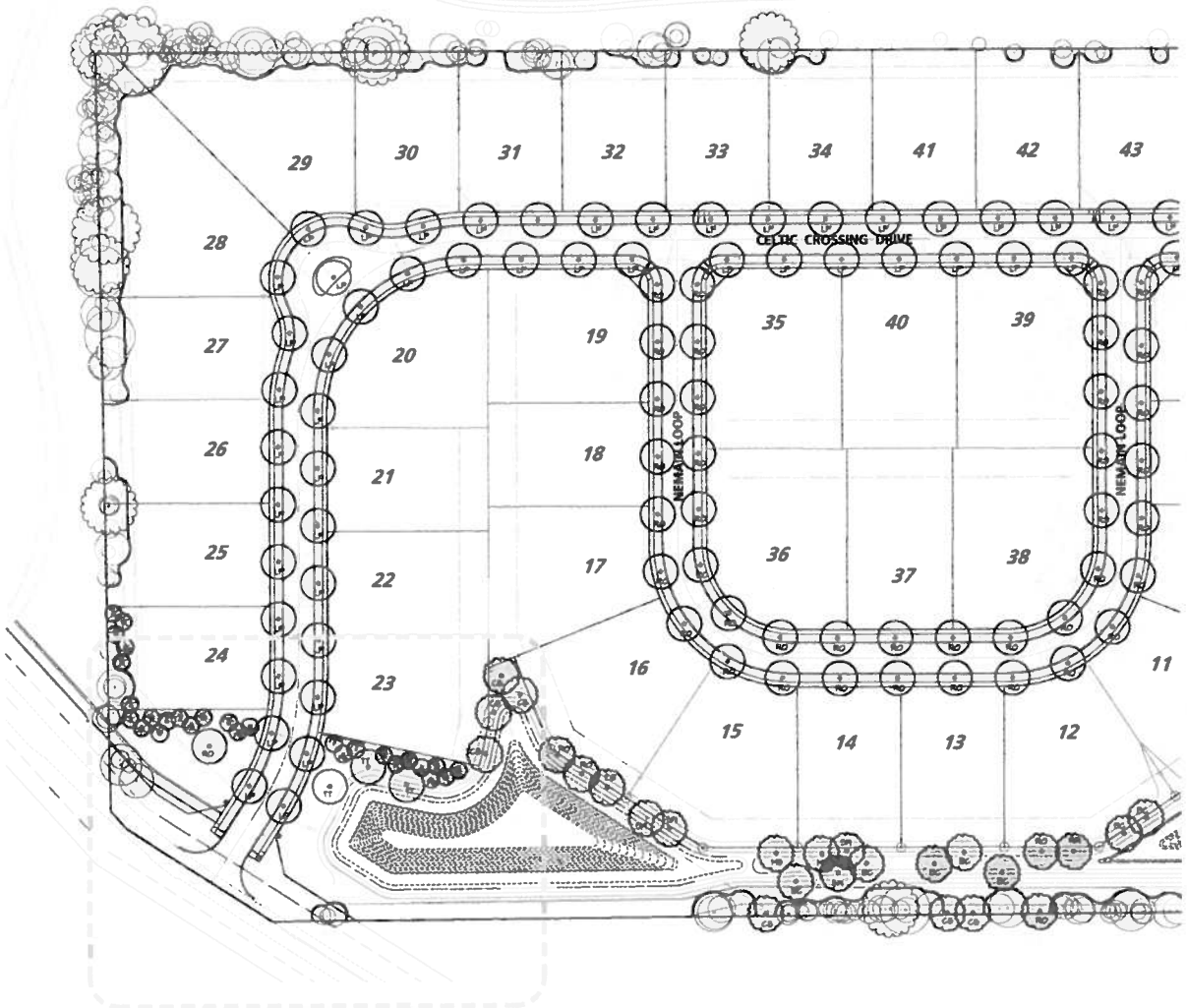
EDGE
A certified corporation and partners + associates
7700 WEST SPRING STREET, SUITE 200
COLUMBUS, OHIO 43235
614.486.1343

REVISIONS

DATE	BY	DESCRIPTION

FDP

L1.05



SEE SHEET L3.03 & L3.04 FOR ENTRY DETAIL AND PLANTING

PLANT KEY

SHADE TREE
BC BALD CYPRESS
CS COMMEMORATION SUGAR MAPLE
EG EMERALD QUEEN NORWAY MAPLE
GS NORTON GLOSSY ELM
LP BLOODGOOD LONDON PLANETREE
MS MORAINE SWEETGUM
RO RED OAK
RR RUBY RED HORSECHESTNUT
SW SWAMP WHITE OAK
TT TULIP TREE

EVERGREEN TREE
NS NORWAY SPRUCE
SS SERBIAN SPRUCE

ORNAMENTAL TREE
AB AUTUMN BRILLIANCE SERVICEBERRY
ER EASTERN REDBUD
PF PRAIRIE FIRE CRAB
PK PINTER KING HAWTHORN

GENERAL NOTES

1. EACH CONTRACTOR IS TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
2. EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
3. CONTRACTOR RESPONSIBLE FOR COST OF REPAIRS TO EXISTING SITE CONDITIONS WHEN DAMAGED BY CONTRACTOR. REPAIR TO THE SATISFACTION OF THE OWNER.
4. ALL PLANT MASSES TO BE CONTAINED WITHIN 3" DEEP HARDWOOD BARK MULCH BED.
5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS
6. FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE FREE OF IRREGULARITIES OR DEPRESSIONS.
7. CONTRACTOR SHALL SEED OR SOD ALL AREAS DISTURBED DURING CONSTRUCTION, SEE PLAN
8. ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE U.S.A. STANDARD FOR NURSERY STOCK.
9. ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.

LEGEND

STREET TREES - STREET TREE LOCATIONS SHOWN ON PLAN ARE FOR QUANTITY TAKEOFFS ONLY. FINAL PLANT TYPE AND LOCATION WILL BE DETERMINED BY THE CITY FORESTER. STREET TREES FOR HYLAND-CROY AND MITCHELL-DEWITT ROAD ARE TO BE PLANTED IN A NATURAL ARRANGEMENT WITHIN THE OPEN SPACE SETBACKS, AS INDICATED ON THE PLAN, AND SHALL BE PROVIDED AT A RATE OF 1 TREE PER 45' OF RIGHT OF WAY FRONTAGE. SEE DETAIL ON SHEET L3.01 FOR PLANTING.

REPLACEMENT TREES - WHERE INDICATED ON THE PLAN REPLACEMENT TREES ARE BEING PROVIDED TO MEET THE TREE REMOVAL / TREE REPLACEMENT REQUIREMENTS OF THE CITY OF DUBLIN. SEE DETAIL ON SHEET L3.01 FOR TREE PLANTING

LOT/OPEN SPACE BOUNDARY MARKER LOCATION. PROPERTY LINES SHALL BE SURVEYED BY THE CONTRACTOR AND MARKERS SHALL BE INSTALLED AT THE PROPERTY CORNERS WHERE SHOWN. SEE DETAIL ON SHEET L3.01.

0' 25' 50' 100'

NORTH

Date August 16, 2013
Job No. 13012

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE PLAN

EDGE

REVISIONS
DATE | BY | DESCRIPTION

FDP

L2.01

PLANT KEY

SHADE TREE
BC BALD CYPRESS
CS COMMEMORATION SUGAR MAPLE
EG EMERALD QUEEN NORWAY MAPLE
SG NORTON GLOSSY ELM
LP BLOODGOOD LONDON PLANETREE
HS HORAINE SWEETGUM
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RR RUBY RED HORSECHESTNUT
SM SWAMP WHITE OAK
TT TULIP TREE

EVERGREEN TREE
NS NORWAY SPRUCE
SS SERBIAN SPRUCE

ORNAMENTAL TREE
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0' 25' 50' 100'

NORTH

Date August 16, 2013
Job No. 13203

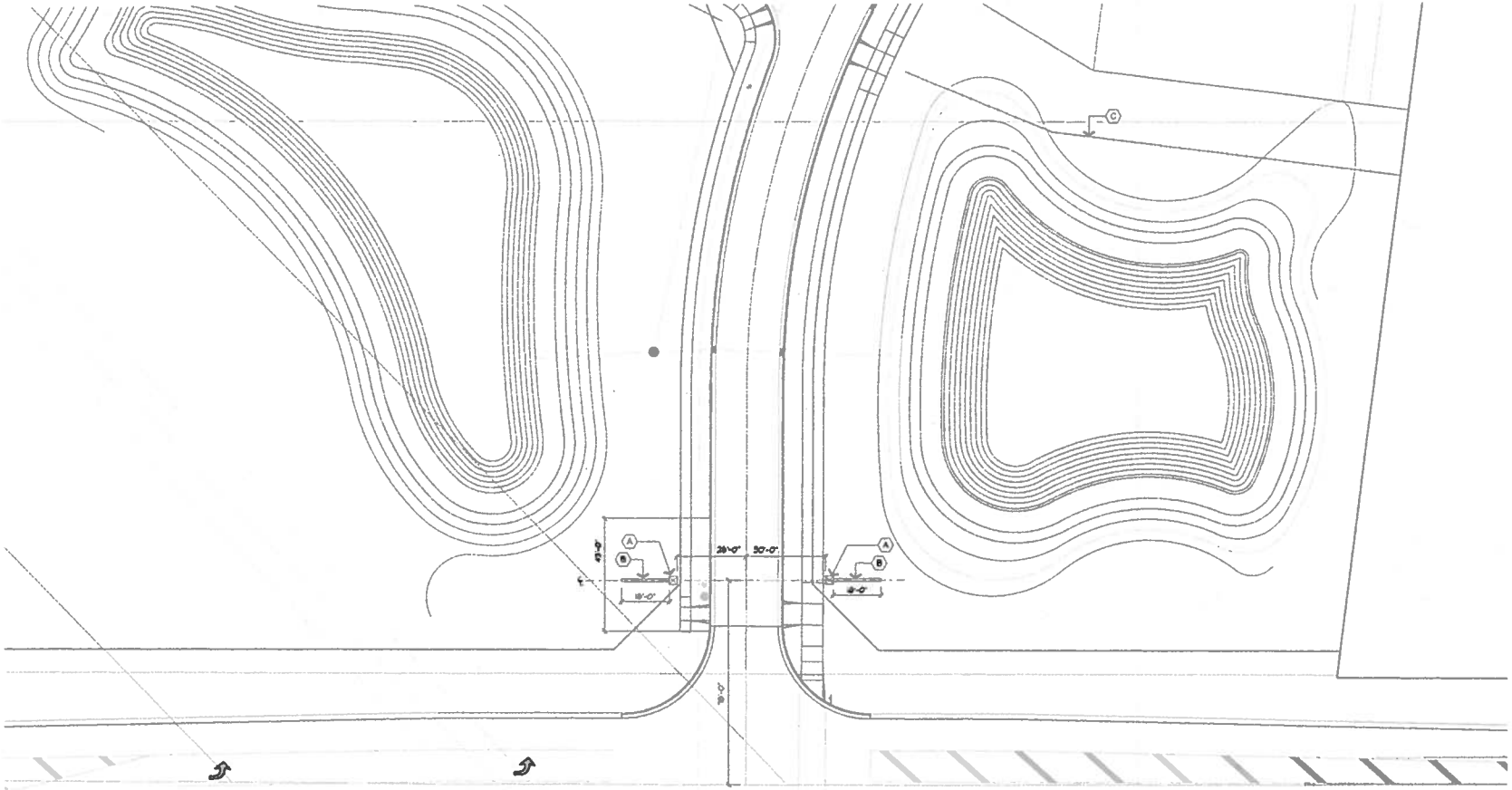
CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE PLAN

EDGE

REVISIONS
NO. DATE DESCRIPTION

SHEET
FDP
L2.02



1 HYLAND-CROY ENTRY FEATURE LAYOUT

0' 10' 20' 40'

NORTH

REFERENCED NOTES

(A) LARGE TAPERED STONE ENTRY COLUMN WITH SIGNAGE. SEE DETAIL ON SHEET L3.03.

(B) LOW STONE ENTRY FEATURE WALL. SEE DETAIL ON SHEET L3.03.

(C) BLACK WOOD CROSSBUCK FENCE. SEE DETAIL ON SHEET L3.03.

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Date August 16, 2013
Job No. 13025

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE ENLARGEMENTS

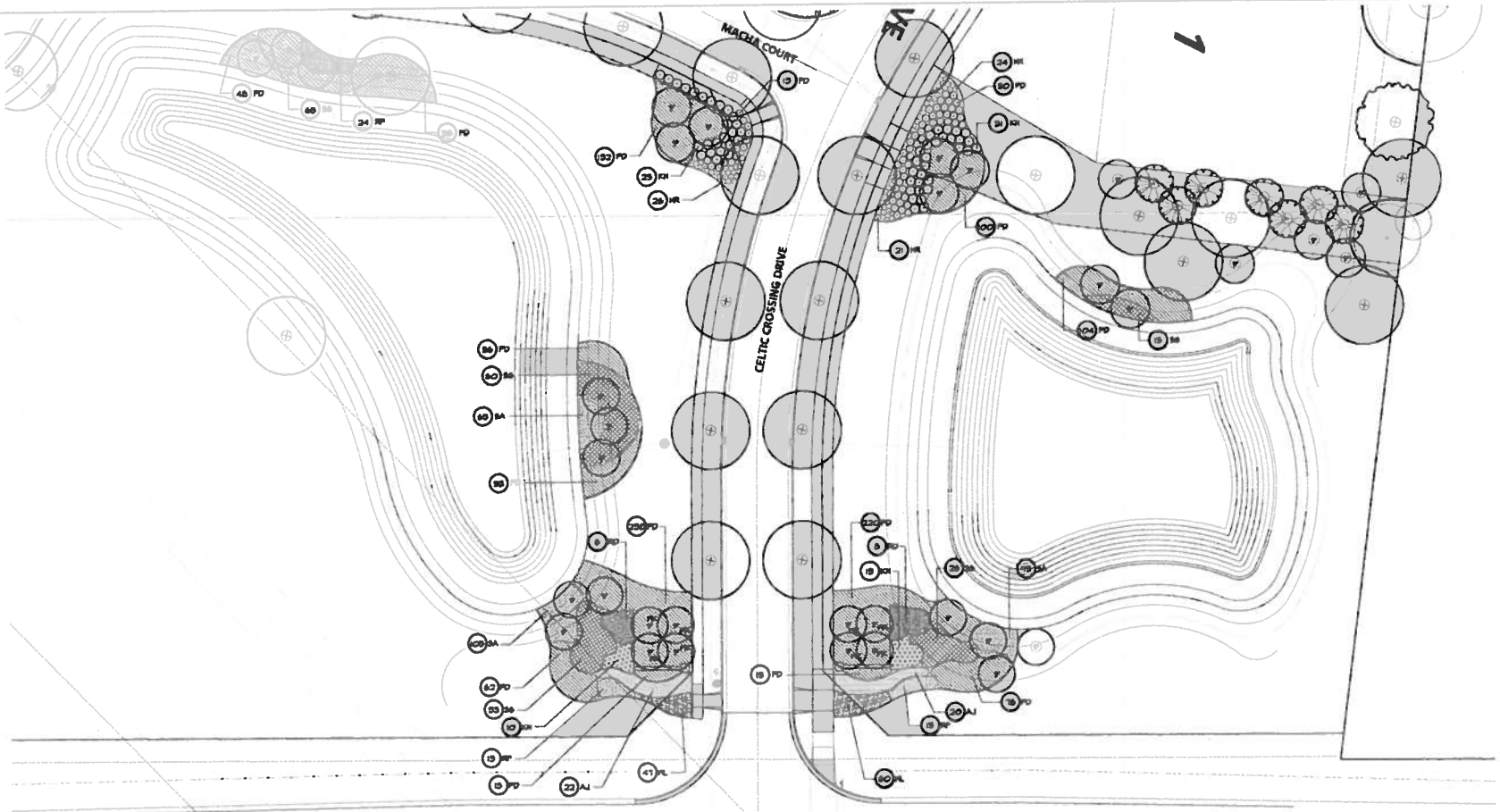
EDGE
STUDIO FOR LANDSCAPE ARCHITECTURE, LLC
1151 W. MAIN ST., DUBLIN, OHIO 43212
(614) 486-6161

REVISIONS

ISSUE	DATE	DESCRIPTION

SHEET FDP

L3.01



1 HYLAND-CROY ENTRY FEATURE PLANTING

6' 10' 20' 40'

NORTH

PLANT KEY

SHADE TREE
LP BLOODGOOD LONDON PLANETREE
SE NORTON GLOSSY ELM
RO RED OAK
TT TULIP TREE
BC BALD CYPRESS
CG COMMEMORATION SUGAR MAPLE
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AB AUTUMN BRILLIANCE SERVICEBERRY
ER EASTERN REDBUD
PF PRAIRIE FIRE CRAB
RK PENTER KING HAWTHORN

SHRUBS
CL CARCABO LUSTRE ARROWWOOD VIBURNUM
AV AUTUMN JAZZ ARROWWOOD VIBURNUM
CB COMPACT BURNINGBUSH
KN KNOCKOUT SHRUB ROSE
AJ TOUMBSTONE ANDORA JUNIPER
RD REDTWIG DOGWOOD

PERENNIALS AND GRASSES
SB HEAVY METAL SWITCH GRASS
PD PRAIRIE DROPSEED
PL WALKER'S LOW CATMINT
HR HAPPY RETURNS DAYLILLY
SA AUTUMN JOY SEDUM
RF BLACK EYED SUSAN

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Date August 16, 2013
Job No. 13025

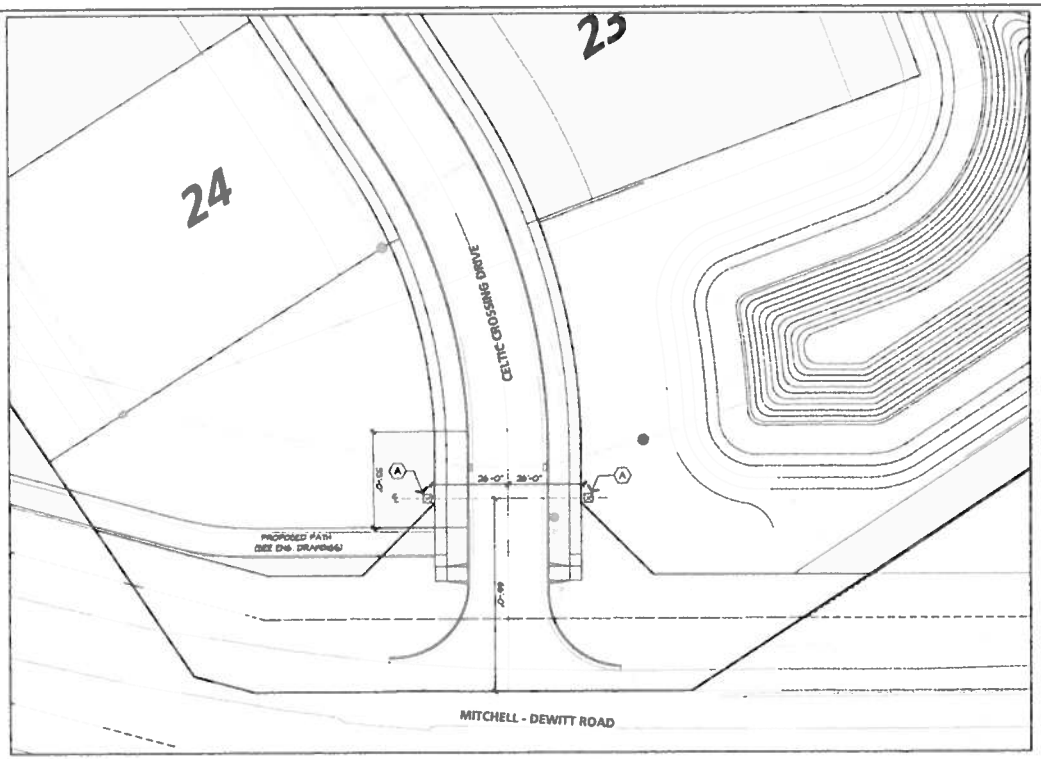
CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE ENLARGEMENTS

EDGE

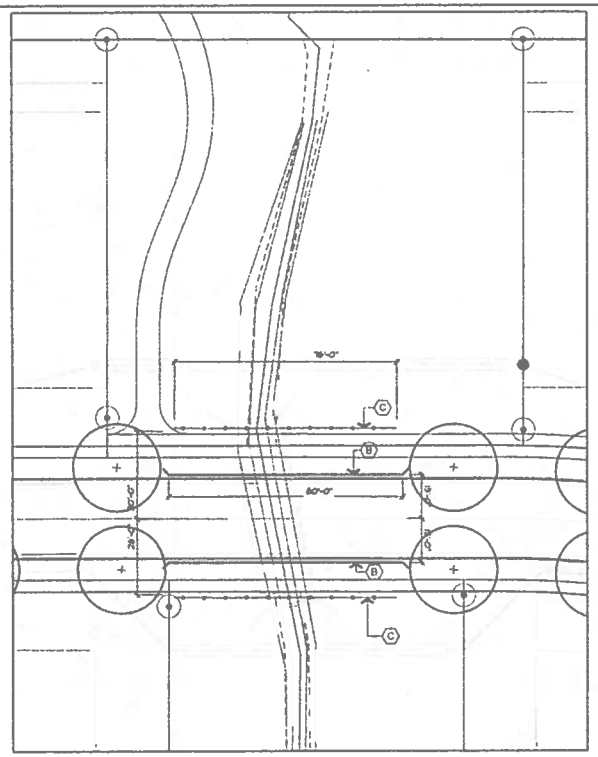
REVISIONS

SHEET **FDP**
L3.02



1 MITCHELL-DEWITT ENTRY FEATURE LAYOUT

0' 10' 20' 40' NORTH



2 STREAM CROSSING LAYOUT

0' 10' 20' 40' NORTH

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REFERENCED NOTES

(A) 6' TAPERED STONE ENTRY COLUMN WITH SIGNAGE. SEE DETAIL ON SHEET L3.03

(B) TIMBER GUARDRAIL. SEE DETAIL ON SHEET L3.02.

(C) BLACK WOOD CROSSBUCK FENCE. SEE DETAIL ON SHEET L3.02

Date August 16, 2013
Job No. 13025

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE ENLARGEMENTS

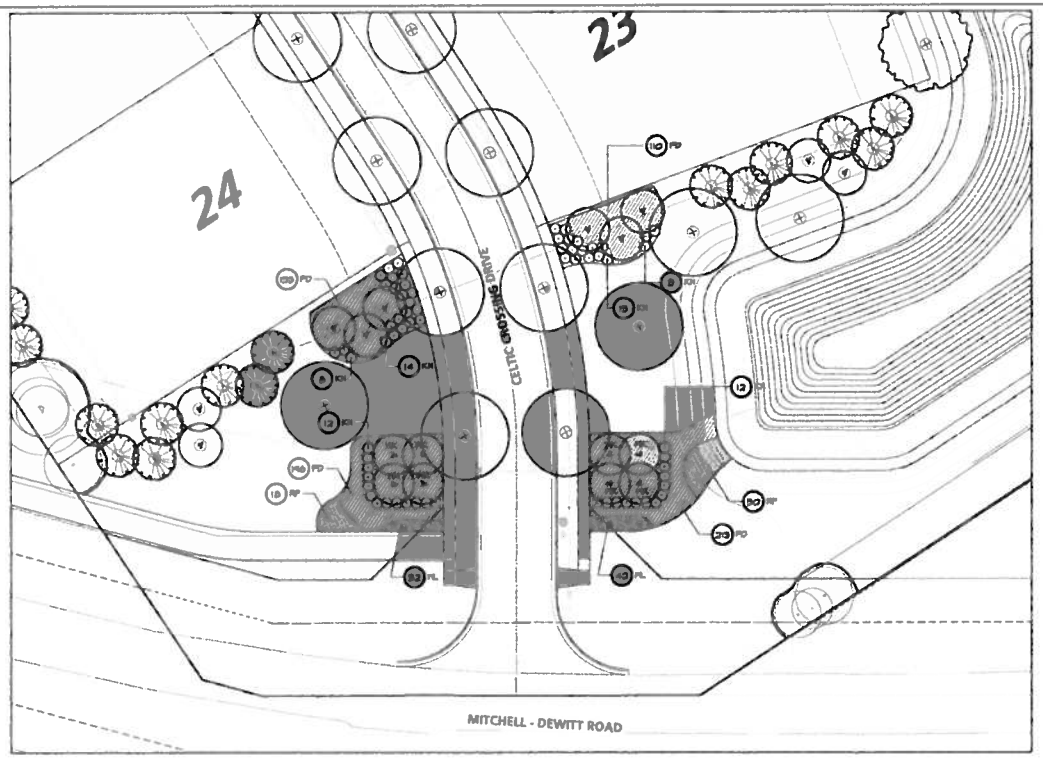
EDGE

REVISIONS

SHEET	DATE	DESCRIPTION

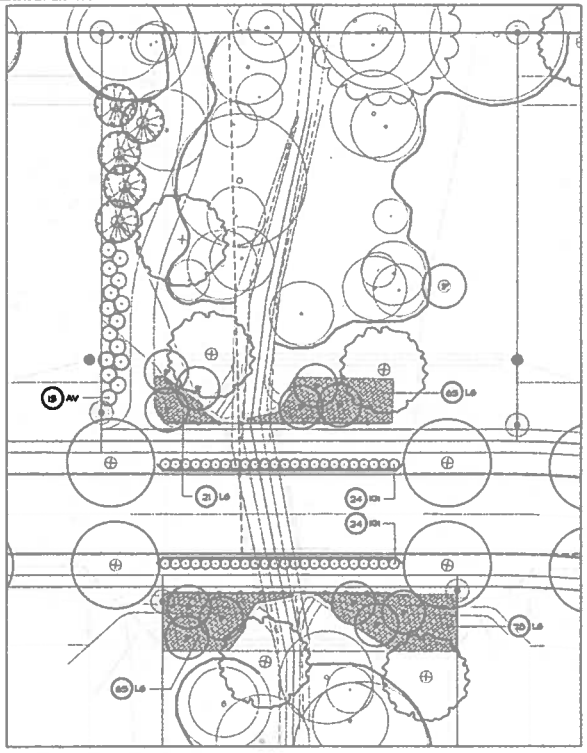
FDP

L3.03



1 MITCHELL-DEWITT ENTRY FEATURE PLANTING

0' 10' 20' 40' NORTH



2 STREAM CROSSING PLANTING

0' 10' 20' 40' NORTH

PLANT KEY

SHADE TREE
- P BLOODGOOD LONDON PLANETREE
- GE NORTON GLOSSY ELM
- RO RED OAK
- TT TULIP TREE
- BC BALD CYPRESS
- CS COMMEMORATION SUGAR MAPLE
- EG EMERALD QUEEN NORWAY MAPLE
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- RR RUBY RED HORSECHESTNUT
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- CL CHICAGO LUSTRE ARROWWOOD VIBURNUM
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- KN KNOCKOUT SHRUB ROSE
- JU YOUNGSTOWN ANDORA JUNIPER
- RD RED TWIG DOGWOOD
- LS LOW GROW FRAGRANT SUMAC

PERENNIALS AND GRASSES
- SG HEAVY METAL SWITCH GRASS
- PD PRAIRIE DROPSEED
- PL PALKERS LOW CATMINT
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Date August 16, 2013
Job No. 13025

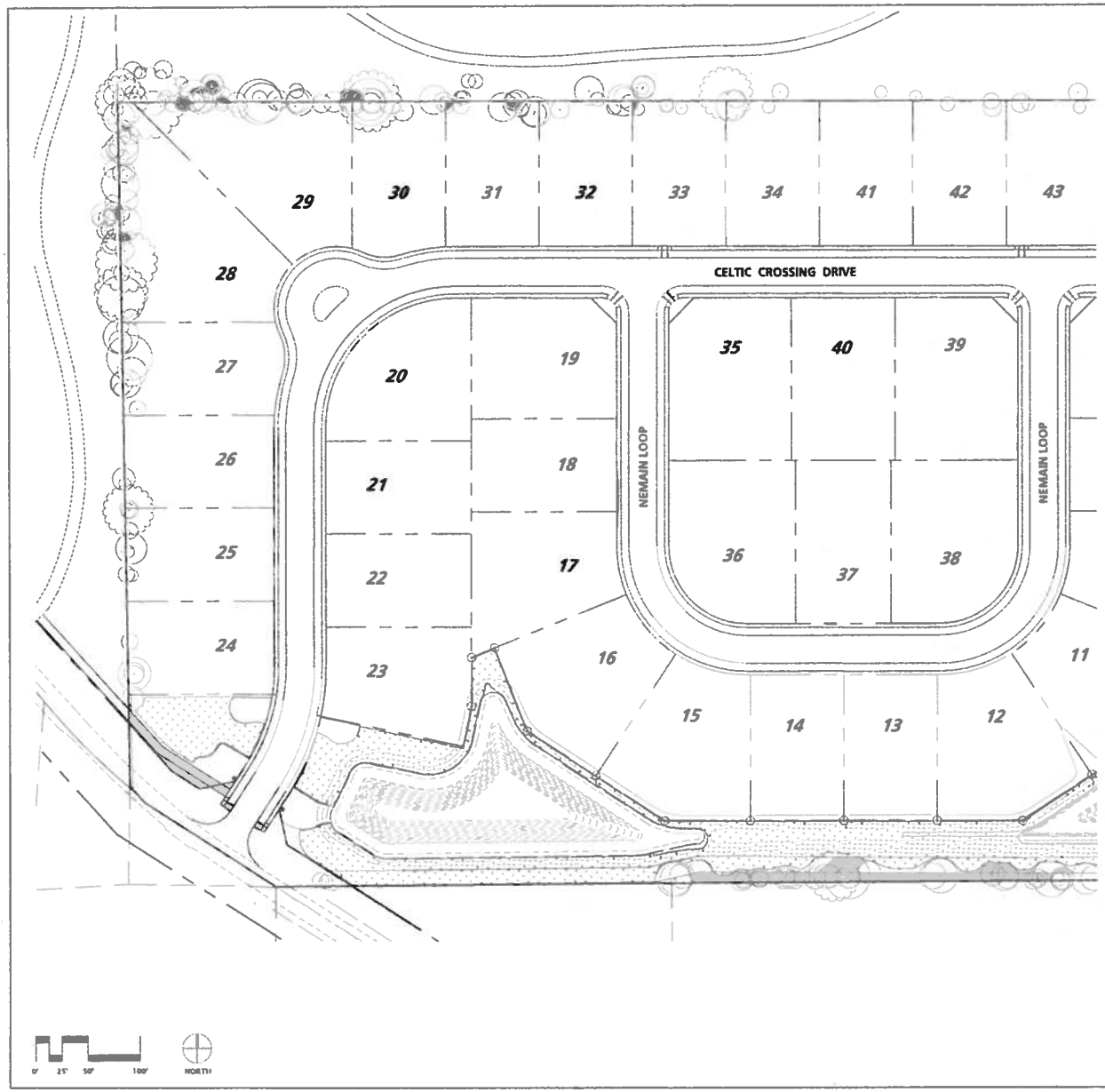
CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE ENLARGEMENTS

EDGE
A DIVISION OF THE EDGE CONSTRUCTION CONSULTANTS, LLC
7 EAST WALL STREET, SUITE 100, COLUMBUS, OHIO 43215
614-486-3343

REVISIONS
SYMBOL DATE DESCRIPTION

SHEET
FDP
L3.04



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FINE TURF SEED MIX

COMMON NAME	% P.L.S
BILTMORE TALL FESCUE	50
MAGELLAN TALL FESCUE	50
PADRE TALL FESCUE	50
GLADSTONE KENTUCKY BLUEGRASS	10

APPLICATION RATE: 6-8 LBS./1,000 S.F.

ROUGH TURF SEED MIX

ROUGH TURF SEED MIX TO BE LESCO FINE FESCUE LINKS BLEND OR APPROVED EQUAL WITH THE FOLLOWING MIX.

COMMON NAME	% P.L.S.
BOTANI HARD FESCUE	40
FOXFIRE CREEPING RED FESCUE	30
SHADOW II CHEWINGS FESCUE	20
MARCO POLO SHEEP FESCUE	10

APPLICATION RATE: 175 LBS./ACRE

SEED LEGEND

AREA TO BE SEEDED WITH FINE TURF MIXTURE

AREA TO BE SEEDED WITH ROUGH TURF MIXTURE

SEEDING NOTES

1. WITHIN TREE PROTECTION ZONE.

   AREAS WILL BE PRESERVED IN A NATURAL STATE. INVASIVE AND NOXIOUS PLANTS WILL NOT BE REMOVED

2. WITHIN 50FT/OUTSIDE OF TREE PROTECTION ZONE.

   AREAS EXPOSED DUE TO CONSTRUCTION ACTIVITY OR CROP PRODUCTION SHALL BE SEEDED WITH ROUGH TURF. UNEXPOSED AREAS WILL REMAIN IN A NATURAL STATE. INVASIVE AND NOXIOUS PLANT MATERIAL WILL BE REMOVED WHEN POSSIBLE.

3. AREAS WITHIN THE RIGHT OF WAY AND DITCH SECTIONS WILL BE SEEDED WITH FINE TURF AND MAINTAINED AS SUCH. ROUGH TURF WILL NOT ENCROACH INTO THESE AREAS.
4. ALL AREAS DISTURBED DURING CONSTRUCTION THAT ARE NOT IDENTIFIED AS TO BE SEEDED WITH THE ROUGH TURF SEED MIX SHALL BE SEEDED WITH THE FINE TURF MIXTURE AS SPECIFIED ABOVE.

Date: August 16, 2019
Job No. 13023

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

SEEDING PLAN

EDGE
Landscape Architecture Planning
Urban Design
Environmental Graphics
FOX HILLS PARK OFFICE SUITE 150
6161 OAK TREE BLVD.
INDEPENDENCE, OHIO 44131
216-986-0383

REVISIONS
NUMBER | DATE | DESCRIPTION

SHEET
FDP
L4.01

GENERAL NOTES

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PADRE TALL FESCUE	50
GLADSTONE KENTUCKY BLUEGRASS	10

APPLICATION RATE: 6-8 LBS./1,000 S.F.

ROUGH TURF SEED MIX

ROUGH TURF SEED MIX TO BE LESCO FINE FESCUE LINKS BLEND OR APPROVED EQUAL WITH THE FOLLOWING MIX.

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APPLICATION RATE: 175 LBS./ACRE

SEED LEGEND

AREA TO BE SEEDED WITH FINE TURF MIXTURE

AREA TO BE SEEDED WITH ROUGH TURF MIXTURE

SEEDING NOTES:

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   AREAS WILL BE PRESERVED IN A NATURAL STATE. INVASIVE AND NOXIOUS PLANTS WILL NOT BE REMOVED.

2. WITHIN 50FT/OUTSIDE OF TREE PROTECTION ZONE:

   AREAS EXPOSED DUE TO CONSTRUCTION ACTIVITY OR CROP PRODUCTION SHALL BE SEEDED WITH ROUGH TURF. UNEXPOSED AREAS WILL REMAIN IN A NATURAL STATE. INVASIVE AND NOXIOUS PLANT MATERIAL WILL BE REMOVED WHEN POSSIBLE.

3. AREAS WITHIN THE RIGHT OF WAY AND DITCH SECTIONS WILL BE SEEDED WITH FINE TURF AND MAINTAINED AS SUCH. ROUGH TURF WILL NOT ENCROACH INTO THESE AREAS.
4. ALL AREAS DISTURBED DURING CONSTRUCTION THAT ARE NOT IDENTIFIED AS TO BE SEEDED WITH THE ROUGH TURF SEED MIX SHALL BE SEEDED WITH THE FINE TURF MIXTURE AS SPECIFIED ABOVE.

Date: August 14, 2013
Job No. 13023

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

SEEDING PLAN

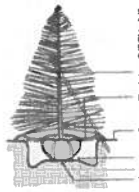
EDGE
Landscape Architecture • Land Planning • Site Design
330 WEST SPRING STREET SUITE 150
COLUMBUS, OHIO 43215
614-464-5414

REVISIONS
SHEET	DATE	DESCRIPTION

SHEET
FDP
L4.02

PLANT MATERIALS LIST

QTY.	SYM	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	SHEET L3.01	SHEET L3.02	SHEET L3.03	SHEET L3.04	SHEET L3.04		NOTES
STREET TREES												
17	GE	HORTON GLOBBY ELM	Ulmus x 'Triumph'	2 1/2" Cal.	B&B	-	17	-	-	-	-	FINAL SPACING AND LOCATION OF STREET TREES SHALL BE DETERMINED ON SITE BY THE CITY OF DUBLIN FORESTER
54	LP	BLOODGOOD LONDON PLANETREE	Platanus x acerifolia	2 1/2" Cal	B&B	46	6	-	-	-	-	
40	RO	RED OAK	Quercus rubra	2 1/2" Cal	B&B	41	3	-	-	-	-	
19	TT	TULIP TREE	Liriodendron tulipifera	2 1/2" Cal.	B&B	3	13	-	-	-	-	
4	CS	COMMEMORATION SUGAR MAPLE	Acer saccharum 'Commemoration'	2 1/2" Cal.	B&B	-	4	-	-	-	-	
3	EG	EMERALD QUEEN NORWAY MAPLE	Acer platanoides 'Emerald Queen'	2 1/2" Cal.	B&B	-	3	-	-	-	-	
2	MS	MORAINE SWEETGUM	Liquidambar styraciflua 'Moraine'	2 1/2" Cal	B&B	-	2	-	-	-	-	
3	RR	RUBY RED HORSECHESTNUT	Aesculus carnea 'Briotii'	2 1/2" Cal.	B&B	-	3	-	-	-	-	
4	JT	IVORY SILK JAPANESE TREE LILAC	Syringa reticulata 'Ivory Silk'	2 1/2" Cal	B&B	-	4	-	-	-	-	
SHADE TREES (N13 CALIPER INCHES TOWARD REPLACEMENT REQUIREMENT)												
1	BC	BALD CYPRESS	Taxodium distichum	2 1/2" Cal.	B&B	7	-	-	-	-	-	11.5 REPLACEMENT INCHES
13	CS	COMMEMORATION SUGAR MAPLE	Acer saccharum 'Commemoration'	2 1/2" Cal.	B&B	7	6	-	-	-	-	52.5 REPLACEMENT INCHES
2	EG	EMERALD QUEEN NORWAY MAPLE	Acer platanoides 'Emerald Queen'	2 1/2" Cal.	B&B	1	1	-	-	-	-	5 REPLACEMENT INCHES
4	MS	MORAINE SWEETGUM	Liquidambar styraciflua 'Moraine'	2 1/2" Cal	B&B	2	2	-	-	-	-	10 REPLACEMENT INCHES
8	RO	RED OAK	Quercus rubra	2 1/2" Cal	B&B	4	4	-	-	-	-	20 REPLACEMENT INCHES
3	RR	RUBY RED HORSECHESTNUT	Aesculus carnea 'Briotii'	2 1/2" Cal.	B&B	1	2	-	-	-	-	7.5 REPLACEMENT INCHES
4	SM	SWAMP WHITE OAK	Quercus Bicolor	2 1/2" Cal	B&B	4	5	-	-	-	-	22.5 REPLACEMENT INCHES
1	TT	TULIP TREE	Liriodendron tulipifera	2 1/2" Cal.	B&B	-	1	-	-	-	-	2.5 REPLACEMENT INCHES
EVERGREEN TREES												
21	NS	NORWAY SPRUCE	Picea abies	7-8' Hgt.	B&B	11	10	-	-	-	-	
4	SS	SERBIAN SPRUCE	Picea omorika	7-8 Hgt.	B&B	7	2	-	-	-	-	
ORNAMENTAL TREES (120 CALIPER INCHES TOWARD REPLACEMENT REQUIREMENT)												
13	AB	AUTUMN BRILLIANCE SERVICEBERRY	Amelanchier x grandiflora	8-10' Hgt./2.5" Cal.	B&B	-	14	-	-	-	-	52.5 REPLACEMENT INCHES
14	ER	EASTERN REDBUD	Cercis canadensis	8-10' Hgt./2.5" Cal.	B&B	4	17	-	-	-	-	23 REPLACEMENT INCHES
8	FF	FRANKS FIRE CRAB	Malus 'Franksfire'	2" Cal	B&B	-	8	-	-	-	-	
21	WK	WINTER KING HAWTHORN	Crataegus viridis 'Winter King'	2 1/2" Cal.	B&B	10	11	-	-	-	-	52.5 REPLACEMENT INCHES
SHRUBS						SHEET L3.01	SHEET L3.02	SHEET L3.03	SHEET L3.04			
15	AV	AUTUMN JAZZ ARROWWOOD VIBURNUM	Viburnum Ralph Senior	3-4' Hgt.	B&B				15			
156	KN	KNOCKOUT SHRUB ROSE	Rosa 'RADrazz'	# 5 cont.	Cont.	-	-	74	107	-	-	
42	JU	YOUNGSTOWN ANDORA JUNIPER	Juniperus h. 'Plumosa Compacta' 'Youngstown'	# 5 cont.	Cont.	-	-	42	-	-	-	
14	RD	RED TWIG DOGWOOD	Cornus alba 'Sibirica'	# 5 cont.	Cont.	-	-	14	-	-	-	
224	LG	LOW GROW FRAGRANT SUMAC	Rhus aromatica 'Gro-Low'	# 5 cont.	Cont.	-	-	-	224	-	-	
PERENNIALS AND GRASSES						SHEET L3.01	SHEET L3.02	SHEET L3.03	SHEET L3.04			
201	SS	HEAVY METAL SWITCH GRASS	Panicum virgatum 'Heavy Metal'	# 2 Cont.	Cont.	-	-	201	-	-	-	
1219	PD	PRAIRIE DROPSEED	Sporobolus heterolepis	# 2 Cont.	Cont.	-	-	1220	899	-	-	
101	PL	PALKERS LOW CATMINT	Nepeta faassenii 'Walkers Low'	# 2 Cont.	Cont.	-	-	101	74	-	-	
71	HR	HAPPY RETURNS DAYLILLY	Hemerocallis 'Happy Returns'	# 2 Cont.	Cont.	-	-	71	-	-	-	
348	SA	AUTUMN JOY SEDUM	Sedum x 'Autumn Joy'	# 2 Cont.	Cont.	-	-	348	-	-	-	
100	RF	BLACK EYED SUSAN	Rudbeckia hirpida 'Goldsturm'	# 2 Cont.	Cont.	-	-	52	48	-	-	



NOTES:
1. TOP OF ROOT BALL TO BE 2"-4" ABOVE ADJACENT FINISH GRADE
2. REMOVE ROPE AND BURLAP FROM TOP 1/3 OF ROOT BALL. CUT TOP 1/3 OF WIRE BASKET FROM ROOT BALL. REMOVE ALL LABELS, TAGS OR OTHER FOREIGN MATERIALS FROM LIMBS.

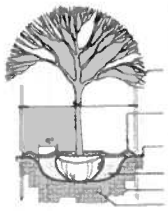
- 2"X 2"X 8' STAKE (DRIVEN 2'-0" INTO GROUND) ANGLE STAKE TOWARD PREVAILING WIND
- 3" DEPTH HARDWOOD BARK MULCH PROVIDE SAUCER AT TRANSITION FROM PLANTING MIX TO ADJACENT FINISHED GRADE.
- FINISH GRADE
- BACKFILL PLANTING MIX
- EXISTING SOIL
- UNDISTURBED SOIL OR COMPACTED BACKFILL

1 EVERGREEN TREE PLANTING
NTS

NOTES:
1. TOP OF ROOT BALL TO BE 2"-4" ABOVE ADJACENT FINISH GRADE
2. REMOVE ROPE AND BURLAP FROM TOP 1/3 OF ROOT BALL. REMOVE ALL LABELS, TAGS OR OTHER FOREIGN MATERIALS FROM LIMBS.

- 3" DEPTH HARDWOOD BARK MULCH
- FINISH GRADE
- BACKFILL PLANTING MIX
- EXISTING SOIL
- UNDISTURBED SOIL OR COMPACTED BACKFILL

2 SHRUB PLANTING
NTS



NOTES:
1. TOP OF ROOT BALL TO BE 2"-4" ABOVE ADJACENT FINISH GRADE
2. REMOVE ROPE AND BURLAP FROM TOP 1/3 OF ROOT BALL. CUT TOP 1/3 OF WIRE BASKET FROM ROOT BALL. REMOVE ALL LABELS, TAGS OR OTHER FOREIGN MATERIALS FROM LIMBS.

- BLACK RUBBER HOSE AND 12 GAUGE WIRE (3) 2"X 2"X 8' HARDWOOD STAKES DRIVE AT SLIGHT ANGLE 2' MIN. IN UNDISTURBED SOIL AND DRAW TIGHT
- 3" DEPTH HARDWOOD BARK MULCH PROVIDE SAUCER AT TRANSITION FROM PLANTING MIX TO ADJACENT FINISHED GRADE
- FINISH GRADE
- BACKFILL PLANTING MIX
- EXISTING SOIL
- UNDISTURBED SOIL OR COMPACTED BACKFILL

3 STREET TREE PLANTING
NTS

NOTE:
REMOVE STAKES AFTER ONE YEAR.

Date: August 16, 2013
Job No: 13023

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

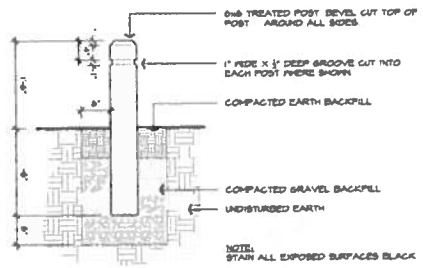
PLANT SCHEDULE AND PLANTING DETAILS

EDGE
A DIVISION OF EDGE OF WOODS, INC. A GROUP OF 10
230 WEST STREET, SUITE 310
COLUMBUS, OHIO 43215
614.469.1043

REVISIONS

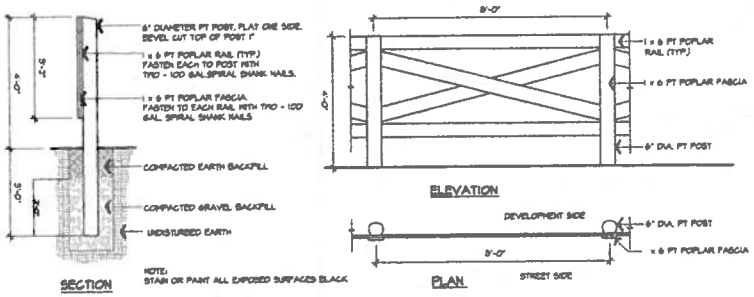
MARK	DATE	DESCRIPTION

SHEET
FDP
LS.01



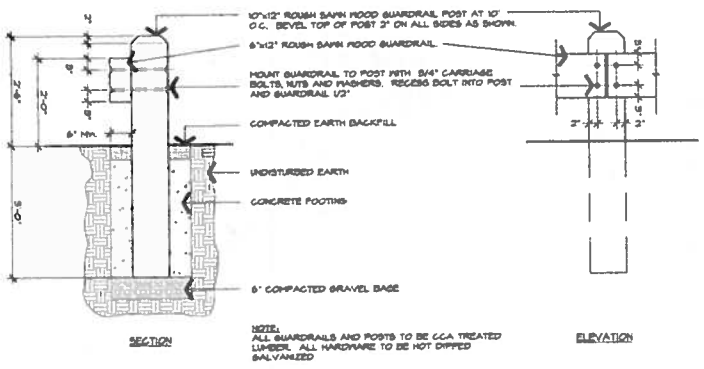
X NATURAL AREA BOUNDARY MARKER

NTS



X CROSS BUCK WOOD FENCE

NTS



X TIMBER GUARDRAIL

NTS

Date August 16, 2013
Job No. 130025

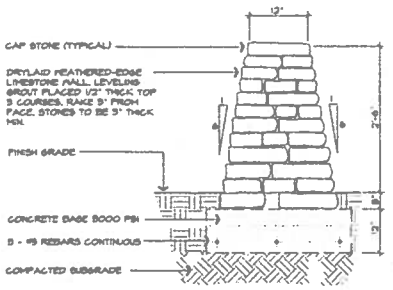
CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE DETAILS

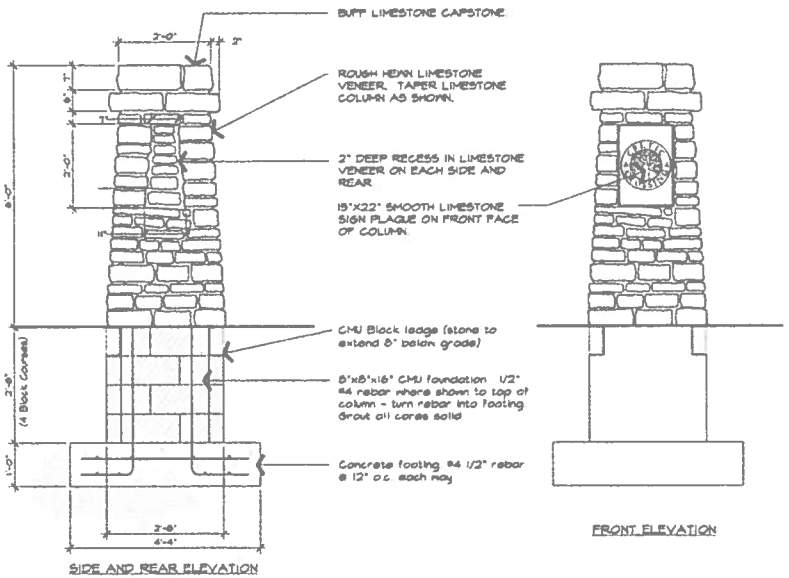
EDGE

REVISIONS

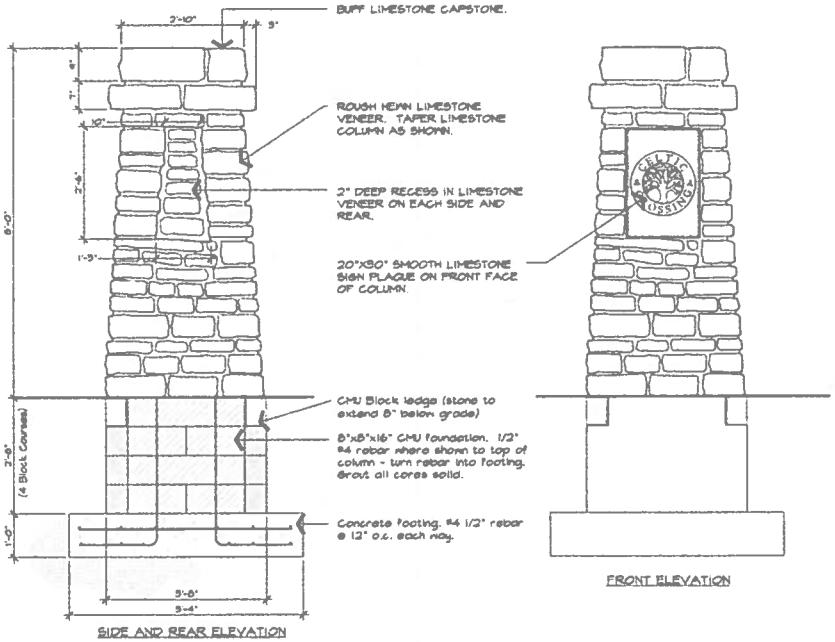
FDP
L5.02



X STONE ENTRY WALL
NTS



X SMALL STONE ENTRY COLUMN
NTS



X LARGE STONE ENTRY COLUMN
NTS

Date: August 16, 2013
Job No. 13025

CITY OF DUBLIN, OHIO
FINAL DEVELOPMENT PLAN
FOR
CELTIC CROSSING

LANDSCAPE DETAILS

EDGE

REVISIONS

NUMBER	DATE	DESCRIPTION

SHEET
FDP
L5.03

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
2013

SHEET INDEX

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PROJECT SUMMARY

PROJECT AREA	28.0 Ac
RIGHT-OF-WAY AREA	4.38 Ac
NUMBER OF LOTS	44

STANDARD DRAWINGS

CITY OF DUBLIN		CITY OF COLUMBUS			ODOT
RD-01	SL-02	AA-S100	AA-S128	L-6308	CB-1.2
RD-02	SL-03	AA-S106	AA-S133	L-6409	
RD-03	SL-04	AA-S107	AA-S139	L-6840	
RD-05	SL-05	AA-S112	AA-S149	L-7001	
RD-06	SL-06	AA-S115	AA-S150	Std Dwg 1441	
RD-07	SL-08	AA-S117	AA-S151		
RD-08	ST-01	AA-S119			
RD-10	ST-02	AA-S125			
PD-01	ST-03				
PD-02	ST-04				
PD-03	ST-05				
PD-04	ST-06				
SL-01	WA-01				

THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THIS PLAN SHALL BE CONSIDERED A PART THEREOF.

BENCH MARKS
(NAD 1983)

Source BM — Aluminum disk in the northeast corner of Hyland-Croy Road bridge over North Fork Indian Run in Union County, 107 feet south of the centerline of Mitchell-Dewitt Road, 20 feet west of the centerline of Hyland Croy Road.

Elev - 929.864

BM#1 — Chiseled square on top of the north end of a 66 inch concrete storm pipe located on the north side of Mitchell-Dewitt Road, 750 feet east of Hyland-Croy intersection.

N=778040.8150
E=1777931.7440
Elev - 929.34

BM#4 — Chiseled "X" on the south bolt of the third fire hydrant north of the intersection of Hyland-Croy Road and Mitchell-Dewitt Road on the east side of Hyland-Croy Road.

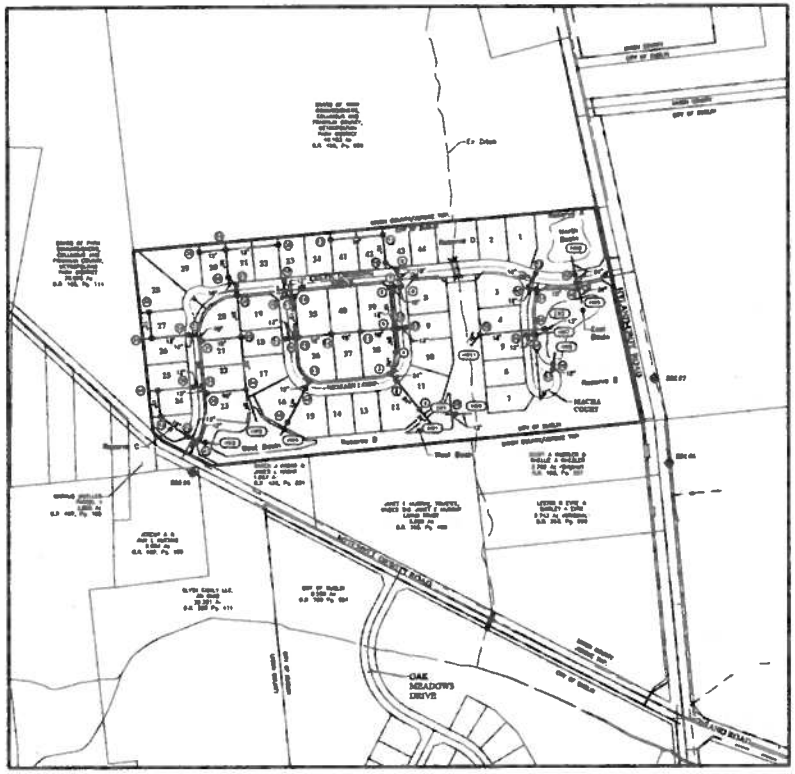
N=778548.3475
E=1778537.5330
Elev - 932.34

BM#6 — Pony railroad spike in the north side of a wooden utility pole located on the south side of Mitchell-Dewitt Road, 30 feet northeast of residence 7787 Mitchell-Dewitt Road.

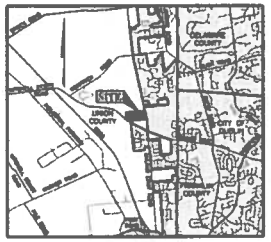
Elev - 937.28

BM#7 — Chiseled "X" on the west bolt of a fire hydrant located 1500 feet north of the intersection of Hyland-Croy Road and Mitchell-Dewitt Road, 40 feet east of the centerline of Hyland-Croy Road.

Elev - 934.54



INDEX MAP
Scale: 1" = 200'



LOCATION MAP
Not to Scale

GRAPHIC SCALE
0 100 200 400
1 inch = 200 feet

DEVELOPER/OWNER

Dominion Homes Inc.
PO Box 4900
Dublin, Ohio 43016-5555
Tel: (614) 336-5833
Fax: (614) 336-8801

PREPARED BY:

EMHT

REGISTERED ENGINEER NO. — DATE

APPROVED:

CITY OF DUBLIN:
SIGNATURES BELOW SIGNIFY CONCURRENCE WITH THE GENERAL PURPOSES AND THE GENERAL LOCATION OF THE PROJECT ONLY. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER, CITY OF DUBLIN, OHIO — DATE

CITY OF COLUMBUS:
APPROVAL ON THE PART OF CITY OF COLUMBUS IS GIVEN PURSUANT TO THE PROVISIONS OF THE WATER SERVICE AGREEMENT BETWEEN CITY OF DUBLIN, OHIO AND CITY OF COLUMBUS, OHIO, ON APRIL 13, 1993 AND ALL SUBSEQUENT AMENDMENTS THEREOF.

ADMINISTRATOR, DIVISION OF WATER
CITY OF COLUMBUS, OHIO — DATE

DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES CITY OF COLUMBUS, OHIO — DATE

OHIO Utilities Protection SERVICE
Call Before You Dig
800-362-2764 or 8-1-1
www.oupc.org

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE AUGUST 14, 2013

REVISIONS

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS FOR
CELTIC CROSSING
TITLE SHEET & INDEX MAP

EMHT

DATE: AUGUST 14, 2013
SCALE: As Noted
JOB NO.: 2012-1157
SHEET: 1/21

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 construction 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 bench marks, 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 water courses 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 may 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
    5200 Emer Ringe 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 638 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 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 variation in equal parts) Germination Rate: 85% Application Rate: 7 lbs per 1000 sq ft as directed by the Division of Parks & Recreation, City of Dublin, Ohio.

27. Traffic control and other regulatory signs shall be Type 5 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 5, 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:

Columbia Gas of Ohio Attn. Tammy Schmid 200 Civic Center Dr., 4th Floor Columbus, Ohio 43215 1-800-440-6111	City of Columbus Division of Water 910 Dublin Road, 2nd Floor Columbus, Ohio 43215 (614) 849-7877
American Electric Power Robin Hand Engineering Liaison Coordinator 850 Tech Center Drive Gahanna, Ohio 43230-6605 (614) 883-6829	Wide Open West Ken Holderfield Engineering Manager 3675 Corporate Drive Columbus, Ohio 43231 (614) 238-3822
City of Dublin Division of Engineering Ken Richardson, P.E. 5200 Emer Ringe Road Dublin, Ohio 43016 (614) 410-4631	Time Warner Cable Kevin Rich 1298 Dublin Road Columbus, Ohio 43215 (614) 481-5263

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 proper provisions for traffic control are not being provided by the Contractor, 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 43 days prior to the start of construction and may include 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 21 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

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.

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 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, except that the nozzle shall be threaded to the barrel of the hydrant.

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 801.15 of the City of Columbus Construction and Materials 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 801.14 of the City of Columbus Construction and Material Specifications. When water lines are ready for disinfection, the City of Dublin shall submit three (3) 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.

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 connection permits (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 845-7788 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, AB8 for 5/8" through 1" meters or L-6317, AB,CAD 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. Water service boxes shall be placed 1' from the edge of the proposed or existing sidewalk between the sidewalk and the curb, or 2 feet inside the right-of-way or easement line when no sidewalk is present or proposed, and set at finished grade. Refer to Standard Drawing L-9901 for additional information.

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. Tee 3/4 inch tape shall be installed within 2 feet of the end of a line on all dead-end water lines.

18. All water mains shall be cleaned and flushed, also any water main 12-inch and larger must be properly pigged, in accordance with section 801.13 of the City of Columbus, Construction and Materials Specifications

STORM SEWERS

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 III for pipe diameters 12 inches to 15 inches, Class IV for 18 inches to 24 inch pipes, and 27 inches and larger pipe shall be Class B, 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 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 B, 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. Surfaces to be acid washed before approval of stone facing.

6. Storm inlets or catch basins shall be channelized and have bicycle safe grates.

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 U.S. 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 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.

MISCELLANEOUS

1. High Density Polystyrene (HDPE) corrugated pipe with integrally formed smooth interior wall, AOS M-12 or approved equal, is an approved alternate to reinforced concrete pipe in paved and non-paved areas. This includes applications inside the right-of-way

2. HDPE pipe joints shall be made using watertight couplers with "O"-ring gasket, AOS 177 or approved equal, where rubber "O"-ring gasket (ASTM C-361) pipe is required on approved constructions plans or within contract documents. All other pipe shall have a bell and spigot joint with rubber gasket meeting ASTM F477.

3. All bedding material shall be in accordance with City of Columbus Standard Construction Drawing AA-5149.

4. Backfill material shall be placed in accordance with Item 911 of the City of Columbus Construction Material Specifications (CMS).

5. Backfill material in areas located outside the public right-of-way shall be placed in accordance with City of Columbus Standard Construction Drawing AA-5153.

6. Height of cover shall be in accordance with the Ohio Department of Transportation (ODOT) Location and Design (L&D) Manual, Volume Two, Section 1009.3.1.

7. All HDPE pipe shall be mandrel tested in accordance with City of Columbus Item 801.21, with the exception that the waiting period prior to testing shall be 30 days.

8. For any and all installations requiring the minimization of trench water migration, anti-seep collars shall be installed in accordance with the ODOT L&D Manual, Volume Two Section 1118.4.1.2 and ODOT Standard Hydraulic Construction Drawing WD-1.2.

CITY OF COLUMBUS DIVISION OF WATER NOTES

The City of Columbus Construction and Materials Specifications, 2012 edition, including all supplements thereto, shall govern all construction items that are a part of this plan, unless otherwise noted.

All water main materials and installations shall be in accordance with the current rules and regulations of the City of Columbus, Division of Water.

No person shall begin construction or installation of a public water main until plans have been approved by the OEPA.

All water mains shall be cleaned and flushed, also any water main 12-inch and larger must be properly pigged, in accordance with section 801.11 of the City of Columbus, Construction and Materials Specifications.

The contractor shall wrap all ductile iron pipe with tube style 8 mil linear low density polyethylene (LLDPE) film made from virgin polyethylene only (no recycle material) per A.W.W.A. C-105. The color shall be black with nominal 2% carbon black UV inhibitor and printed per A.W.W.A. C-105 standard. Installation shall be done in accordance with the "Polyethylene Encasement Installation Guide" written by the Ductile Iron Pipe Research Association (DIPRA).

All lumps of clay, mud, cinders, etc. on the pipe surface shall be removed before the pipe is covered with polyethylene. When lifting polyethylene-encased pipe use a fabric type sling or padded cable. Joints shall be overlapped and taped. Field excess stock over the top of the pipe and tape every three (3) feet. Small holes or tears shall be repaired with a piece of tape placed over the hole. To avoid damage during backfilling allow adequate slack in the film tube joints. Backfill material shall be free of cinders, rocks, boulders, rubble, sticks or other material that will damage the polyethylene sleeve.

Appurtenances such as bolted joints, valves, service taps shall also be wrapped. For service taps, wrap two/three layers of tape completely around the polyethylene-encased pipe to cover the area where tapping machine will contact the pipe. Install corporation stop directly through the tape and polyethylene. Wrap copper service at least three feet back from installation with tape and additional polyethylene film to prevent electrolysis.

All work necessary to furnish and install the polyethylene encasement shall be included in Item 801.

No service connection permits shall be issued or connections made to any service taps until water mains have been disinfected by the City of Columbus, Division of Water.

"Survey Coordinates" shall include all material, equipment, and labor necessary to obtain horizontal and vertical (northing, easting, and elevation) survey coordinates for the water main improvements. The survey coordinates shall be obtained for the completed water main construction and shall include all valves, tees, crosses, bends, deflections, plugs, reducers, tapping sleeves, blow offs, chlorination taps, fire hydrants, air releases, curb stops, casing pipe termini, and other fittings. Additional survey coordinates are required on the water main every 300' where no fitting or other water main structure is being installed within that length of the improvement.

All survey coordinates shall be referenced to the applicable County Engineer's Monuments, and shall be based on the North American Datum of 1983 (NAD 83) with the (1986) adjustment, with further reference made to the Ohio State Plane Coordinate System, South Zone, with elevations based on NAVD 88 datum. All coordinates (Northing, Easting, Elevation) shall be referenced to the nearest hundredth (N xxxxxx.xx, E xxxxxx.xx, Elev. xxx.xx) All survey coordinates shall be accurate to within 1.0 foot or less.
The coordinates shall be documented to the Engineer in digital spreadsheet form and shall include the applicable item, station, northing, easting, and elevation. Coordinates shall be submitted to the Engineer on a bi-weekly basis.

Lump sum payment is full compensation for all work involved in obtaining and documenting the survey coordinates as described in the specification.

SPECIAL NOTES

Approval of these plans is contingent upon the City of Dublin, Ohio securing an easement that will hold the City of Columbus harmless for damages resulting from maintenance work and/or water damages that could be associated with this water main. Prior to the approval of the plan by the Administrator of the Division of Water, all easements required for water main construction shall be secured and recorded. The recorded Instrument Number(s) shall appear on the plan adjacent to the applicable easement(s). Also one (1) copy of each recorded instrument shall be delivered to the Division of Water Distribution Engineering Design Engineer. No work under the plan shall commence prior to approval of the Administrator.

The proposed water main shall be located a minimum distance of twenty (20) feet away from any structure, overhang or footer.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE August 14, 2013

MARK	DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS FOR
CELTIC CROSSING
GENERAL NOTES

EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE
AUGUST 14, 2013

SCALE
As Noted

JOB NO.
2013-1137

SHEET
2/21

ESTIMATE OF QUANTITIES

The Quantities Have Been Established As A Means For The City To Estimate The Necessary Development Fees. The Contractor Shall Be Solely Responsible For Determining The Required Bid Quantities Necessary For The Completion Of The Plan Improvements.

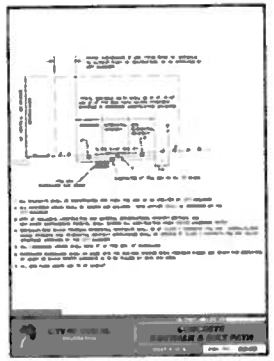
ITEM	QUANTITY	UNIT	DESCRIPTION
			ROADWAY
203	23,479	CY	Excavation
203	10,525	CY	Embankment
204	11,575	SY	Subgrade Compaction
301	1,930	Tons	3" Bituminous Aggregate Base
304	1,928	CY	6" Aggregate Base
304	30	CY	Bike Path 6" Aggregate Base (By Developer)
448	805	Tons	1.25" Asphalt Concrete (Surface Course-Type 1, PG 64-22)
448	1,125	Tons	1.75" Asphalt Concrete (Intermediate Course-Type 2, PG 64-22)
448	33	Tons	Bike Path 2" Asphalt Concrete (By Developer)
605	7,080	LF	4" Pipe Underdrain
608	2	Each	Bike Path Curb Ramp w/Detectable Warning Tape
608	11	Each	Sidewalk Curb Ramp w/Detectable Warning Tape
608	2,565	SF	Concrete Multi-Use Path
608	4,090	SF	Concrete Sidewalk
609	7,080	LF	Combination Curb & Gutter
653	631	CY	3" Topsoil, Furnished and Placed
659	7,377	SY	Seeding & Mulching (R/W & Basins)
			STORM
604	17	Each	Manhole, Type "C"
604	30	Each	Curb And Gutter Inlet (AA-5125), w/Bike Safety Grate
604	13	Each	Catch Basin (AA-5133A) w/Bike Safety Grate
604	2	Each	Catch Basin (ODOT 2-3)
604	5	Each	Headwall (12" Pipe)
604	2	Each	Endwall (12" Pipe)
604	4	Each	Headwall (24" Pipe)
604	1	Each	Endwall (24" Pipe)
604	1	Each	Culvert 16'X8'X80'
901	1,465	LF	12" Storm Sewer w/ Type 1 Bedding
901	290	LF	12" Storm Sewer, w/ Type 1 Bedding, Concrete Encased
901	260	LF	12" Storm Sewer, w/ Type 1 Bedding, w/ Watertight Sanitary Joints (901.15) Trench Dams (901.11)
901	680	LF	15" Storm Sewer w/ Type 1 Bedding
901	30	LF	15" Storm Sewer, w/ Type 1 Bedding, Concrete Encased
901	460	LF	15" Storm Sewer, w/ Type 1 Bedding, w/ Watertight Sanitary Joints (901.15) Trench Dams (901.11)
901	265	LF	18" Storm Sewer, w/ Type 1 Bedding
901	30	LF	18" Storm Sewer, w/ Type 1 Bedding, Concrete Encased
901	795	LF	24" Storm Sewer, w/ Type 1 Bedding
901	30	LF	24" Storm Sewer, w/ Type 1 Bedding, Concrete Encased
901	130	LF	24" Storm Sewer, w/ Type 1 Bedding, w/ Watertight Sanitary Joints (901.15) Trench Dams (901.11)
			WATERLINE
801	100	LF	8" Ductile Iron Water Pipe and Fittings (Cl. 53)(Hydrant Leads)
801	3,380	LF	8" Ductile Iron Water Pipe and Fittings (Cl. 53)
802	7	Each	8" Valve And Appurtenance
802	1	Each	16"x8" Tapping Sleeve And Valve
805	10	Each	3/4" Water Service Tap, Complete (Type K Soft Copper)(Short)
805	34	Each	3/4" Water Service Tap, Complete (Type K Soft Copper)(Long)
809	6	Each	Fire Hydrant, Type "B"
809	4	Each	Fire Hydrant, Type "A"
809	100	LF	16" Casing Pipe
			EROSION CONTROL
207	2,775	LF	Silt Fence
207	2	LF	Stabilized Construction Entrance
207	4,010	LF	Orange Construction Fence (Tree Protection)
207	2	Each	Concrete Washout Area
207	13	Each	Catch Basin Inlet Protection
207	30	Each	Dandy Curb Bag

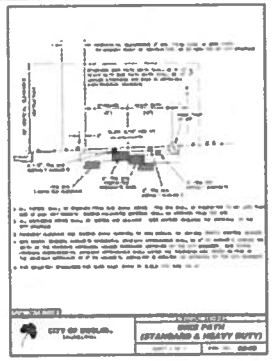
Calculated by: SBH Date: 08/26/13 Checked: BJH Date: 08/26/13

PAVEMENT LEGEND

1. Item 448, 1.25" Asphalt Concrete, Surface Course, Type 1, PG 64-22, Medium Traffic. *
2. Item 448, 1.75" Asphalt Concrete, Intermediate Course, Type 2, PG 64-22, Medium Traffic.
3. Item 301, 3" Bituminous Aggregate Base Course
4. Item 304, 6" Aggregate Base
5. Item 204, Subgrade Compaction
6. Item 653 - 3" Topsoil Furnished And Placed
7. Item 659, Seeding And Mulching
8. Item 301, 8" Bituminous Aggregate Base Course
9. Item 605, 4" Pipe Underdrain w/No. 8 Or No. 57 Stone
10. Item 407, Tack Coat (0.075 Gal Per SY)
11. Item 408, Bituminous Prime Coat (0.10 Gal Per SY)
12. Item 409, Seal Coat (0.3 Gal. Per SY) And (.006 CY Cover Aggregate Per SY)
13. Item 452, Full Depth Pavement Sawing

* NOTE: 448 Surface Course To Be Installed Within 7 Days Of Intermediate Course Or Provide Tack Coat (407) @ 0.15 Gal Per SY At Contractor's Expense (XXX Sy = XXX Gal)





NEMAIN LOOP WATER COORDINATE TABLE/AS-BUILT

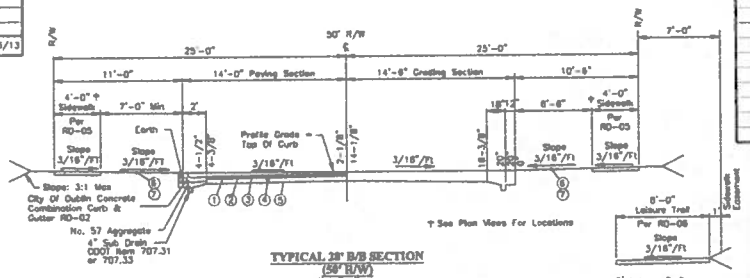
REF	ITEM	STATION	OFFSET	AS-BUILT NORTHING	AS-BUILT EASTING	AS-BUILT ELEVATION
	8"x8"x8" Tee	0+18.00	18.00' L			
	8" Valve	0+49.75	18.00' L			
	3/4" WS (Long)	0+88.53	18.00' L			
	3/4" WS (Long)	1+97.80	18.00' L			
	3/4" WS (Long)	2+89.94	17.18' L			
	3/4" WS (Long)	3+26.19	18.18' L			
	FH	3+43.54	18.00' L			
	8"x8" Tee	3+43.54	19.38' L			
	FH Valve	3+43.54	19.29' L			
	3/4" WS (Long)	3+85.21	17.33' L			
	3/4" WS (Short)	4+88.57	17.35' L			
	3/4" WS (Long)	4+70.57	18.00' L			
	3/4" WS (Short)	5+15.99	18.00' L			
	3/4" WS (Long)	5+83.57	18.00' L			
	3/4" WS (Short)	6+30.98	17.38' L			
	3/4" WS (Long)	6+35.75	17.38' L			
	FH	6+87.00	18.00' L			
	8"x8" Tee	6+87.00	19.38' L			
	FH Valve	6+87.00	19.29' L			
	3/4" WS (Long)	6+88.15	18.88' L			
	3/4" WS (Long)	7+41.14	17.13' L			
	3/4" WS (Long)	8+38.04	18.00' L			
	3/4" WS (Long)	9+43.01	18.00' L			
	8" Valve	9+80.78	18.00' L			
	8"x8"x8" Tee	10+12.54	18.00' L			

MACHA COURT WATER COORDINATE TABLE/AS-BUILT

REF	ITEM	STATION	OFFSET	AS-BUILT NORTHING	AS-BUILT EASTING	AS-BUILT ELEVATION
	8"x8"x8" Tee	0+17.53	18.00' L			
	8" Valve	0+48.83	18.00' L			
	3/4" WS (Long)	0+87.36	18.00' L			
	3/4" WS (Long)	1+38.89	18.00' L			
	3/4" WS (Long)	2+29.36	18.00' L			
	3/4" WS (Long)	4+03.53	8.43' R			
	8"x8" Tee	4+08.43	18.00' R			
	8" Valve	4+08.08	27.68' R			
	FH Valve	4+08.15	18.00' R			
	Plug And Thrust Block	4+08.51	30.88' R			
	FH	4+08.95	18.87' R			
	3/4" WS (Long)	5+44.29	7.08' L			

CELTIC CROSSING DRIVE WATER COORDINATE TABLE/AS-BUILT

REF	ITEM	STATION	OFFSET	AS-BUILT NORTHING	AS-BUILT EASTING	AS-BUILT ELEVATION
	Plug And Thrust Block	0+28.90	18.00' R			
	8" Valve	0+34.90	18.00' R			
	8"x8" Tee	0+55.00	18.00' R			
	FH Valve	0+55.00	13.82' R			
	FH	0+58.88	19.82' R			
	45° Bend	1+08.44	19.50' R			
	45° Bend	1+73.73	19.50' R			
	3/4" WS (Short)	1+80.27	18.13' R			
	3/4" WS (Long)	2+15.75	18.00' R			
	3/4" WS (Short)	2+80.85	18.00' R			
	3/4" WS (Long)	3+05.75	18.00' R			
	8"x8" Tee	3+28.88	18.00' R			
	FH Valve	3+28.85	13.82' R			
	FH	3+34.15	13.82' R			
	3/4" WS (Short)	3+88.85	18.00' R			
	3/4" WS (Long)	3+95.75	18.00' R			
	45° Bend	4+56.36	15.73' R			
	3/4" WS (Long)	4+91.34	19.26' R			
	45° Bend	5+24.18	18.01' R			
	3/4" WS (Long)	5+78.72	18.00' R			
	3/4" WS (Short)	5+35.31	17.18' R			
	FH	5+48.55	31.63' L			
	8"x8" Tee	5+48.55	17.50' R			
	FH Valve	5+48.55	29.38' L			
	3/4" WS (Long)	5+57.80	17.12' R			
	45° Bend	5+88.92	18.01' R			
	3/4" WS (Long)	6+02.87	19.26' R			
	45° Bend	6+38.76	13.73' R			
	3/4" WS (Long)	6+88.72	18.00' R			
	3/4" WS (Long)	7+88.72	18.00' R			
	8" Valve	7+94.81	18.00' R			
	8"x8"x8" Tee	8+83.36	18.00' R			
	3/4" WS (Long)	8+76.72	18.00' R			
	8"x8" Tee	9+94.11	18.00' R			
	FH Valve	9+94.11	13.82' R			
	FH	9+98.81	19.82' R			
	3/4" WS (Short)	9+28.80	18.00' R			
	3/4" WS (Long)	9+88.72	18.00' R			
	3/4" WS (Short)	10+34.30	18.00' R			
	3/4" WS (Long)	10+38.72	18.00' R			
	3/4" WS (Short)	11+46.21	18.00' R			
	3/4" WS (Long)	11+48.72	18.00' R			
	8" Valve	11+88.98	18.00' R			
	8"x8"x8" Tee	12+12.74	18.00' R			
	3/4" WS (Long)	12+38.72	18.00' R			
	8"x8" Tee	12+80.48	18.00' R			
	FH Valve	13+88.48	13.82' R			
	FH	13+84.98	13.82' R			
	3/4" WS (Long)	13+72.12	18.00' R			
	45° Bend	13+88.38	18.00' R			
	45° Bend	13+88.74	43.15' R			
	45° Bend	14+86.62	43.15' R			
	45° Bend	15+34.23	17.98' R			
	3/4" WS (Long)	15+94.91	17.88' R			
	3/4" WS (Long)	16+51.38	17.88' R			
	8"x8" Tee	16+88.84	18.00' R			
	FH Valve	16+88.87	13.78' R			
	FH	16+83.48	19.82' R			
	8"x8"x8" Tee	17+24.88	18.00' R			
	8" Valve	17+53.98	18.00' R			
	FH Valve	18+38.43	13.84' R			
	8"x8" Tee	19+38.44	18.00' R			
	FH	19+43.83	19.82' R			
	8" Valve	[illegible]	18.00' R			



TYPICAL 28' B/B SECTION (58' R/W)
Not To Scale

† See Plan Views For Locations

8' Leisure Trail:
Sta 13+74.72-16+84.31 Concrete
Sta 16+84.31-19+37.68 Asphalt

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

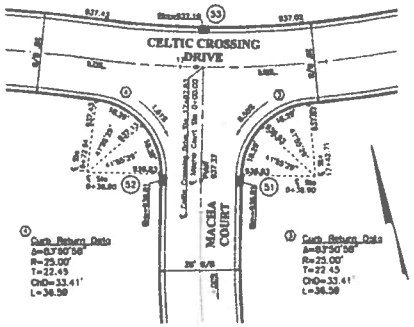
REVISIONS

SHEET	DATE	DESCRIPTION

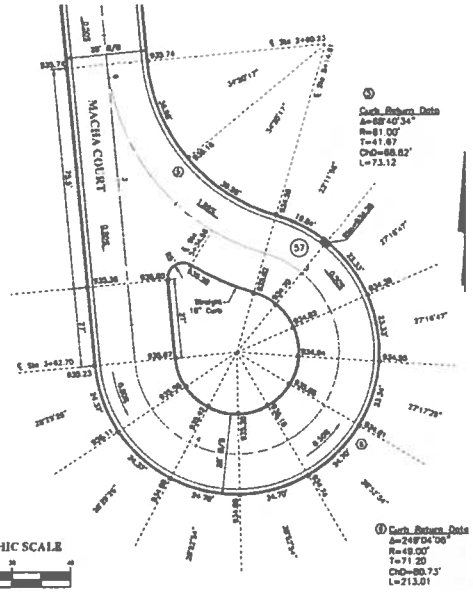
CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM & WATER IMPROVEMENTS
FOR
CELTIC CROSSING
QUANTITIES & TYPICAL SECTIONS

EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
COLUMBUS CINCINNATI CLEVELAND

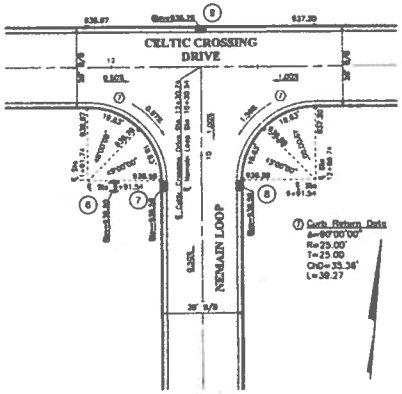
DATE: AUGUST 14, 2013
SCALE: As Noted
JOB NO.: 2012-1157
SHEET: 3/21



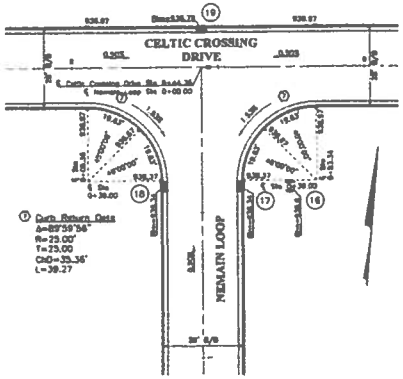
INTERSECTION DETAIL
Scale: 1"=20'



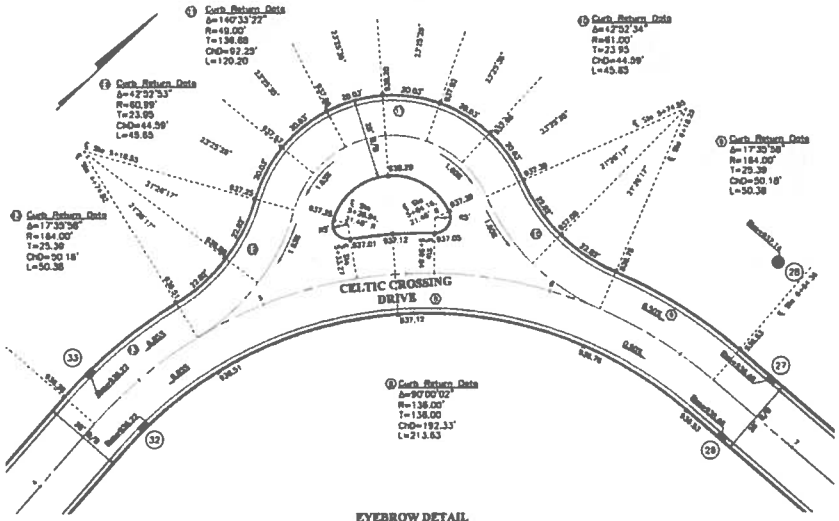
CUL-DE-SAC DETAIL
Scale: 1"=20'



INTERSECTION DETAIL
Scale: 1"=20'



INTERSECTION DETAIL
Scale: 1"=20'

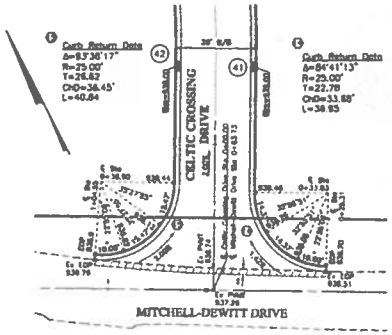


EYEBROW DETAIL
Scale: 1"=20'

NOTES:

- Transition Curb From 6" To 0" In 10'. Elevations Shown Are Top Of Curb Unless Otherwise Noted.
- ** Sawcut & Pavement Replacement Per 1441 Dr A.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE
August 14, 2013



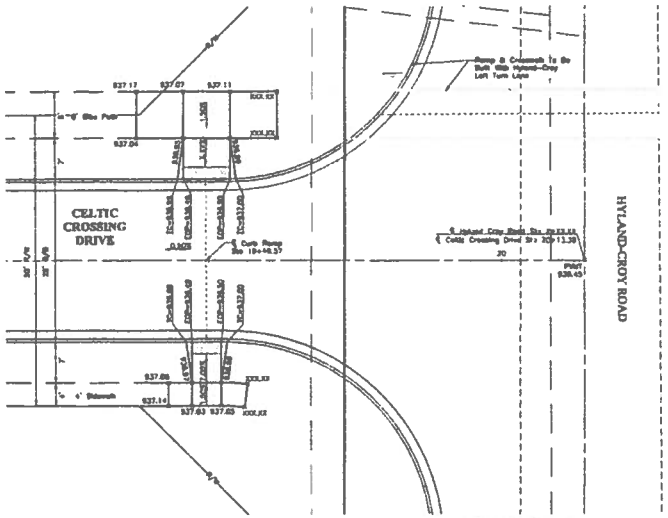
INTERSECTION DETAIL
Scale: 1"=20'

REVISIONS	
DATE	DESCRIPTION

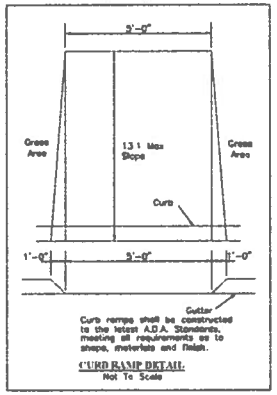
CITY OF DE PERE, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS FOR
CELTIC CROSSING
INTERSECTION DETAILS

EMH&T
Engineers, Architects, Surveyors & Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE: AUGUST 14, 2013
SCALE: As Noted
JOB No.: 2012-1157
SHEET: 4/21



CURB RAMP DETAIL
Scale: 1"=10'



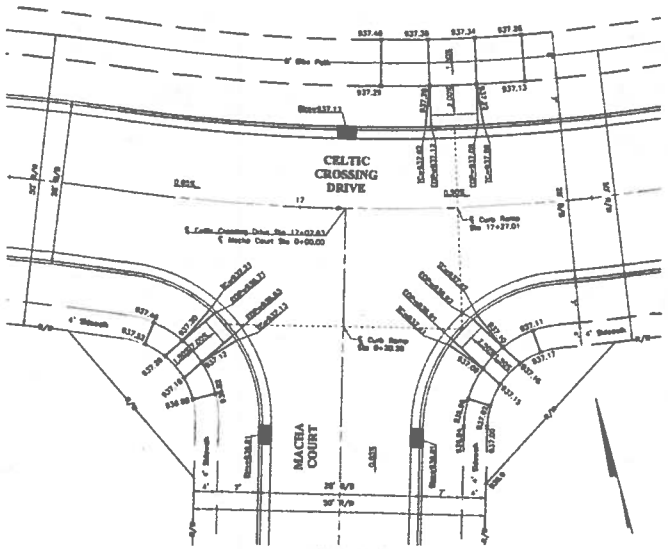
Curb ramps shall be constructed to the latest A.D.A. Standards, meeting all requirements as to shape, materials and finish.

CURB RAMP DETAIL
Not To Scale

= Detectable Warning

= Prop Sidewalk (By Home Builder)

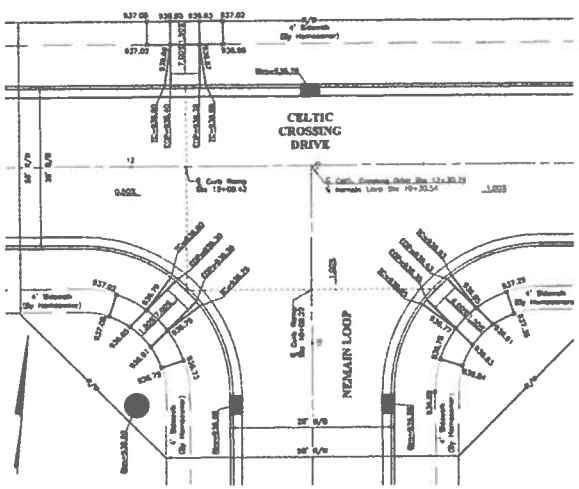
Note: All elevations are Top of Curb unless otherwise noted.



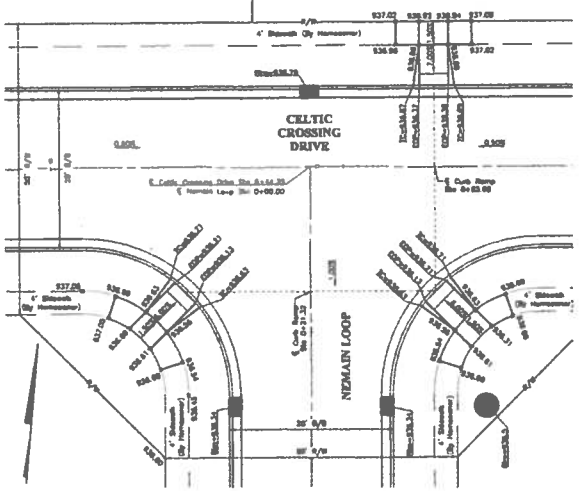
CURB RAMP DETAIL
Scale: 1"=10'

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

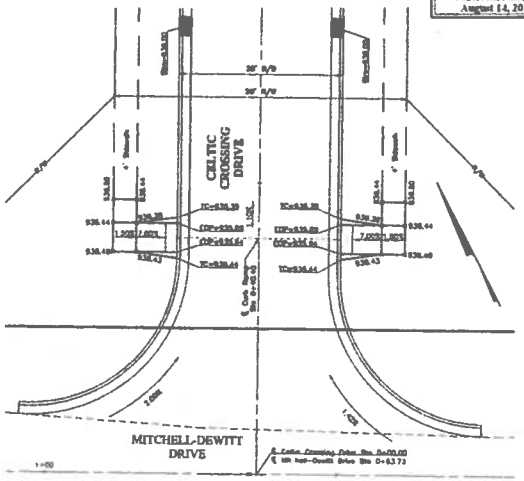
PLANS BY DATE
August 14, 2013



CURB RAMP DETAIL
Scale: 1"=10'



CURB RAMP DETAIL
Scale: 1"=10'



CURB RAMP DETAIL
Scale: 1"=10'

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS FOR
CELTIC CROSSING
CURB RAMP DETAILS

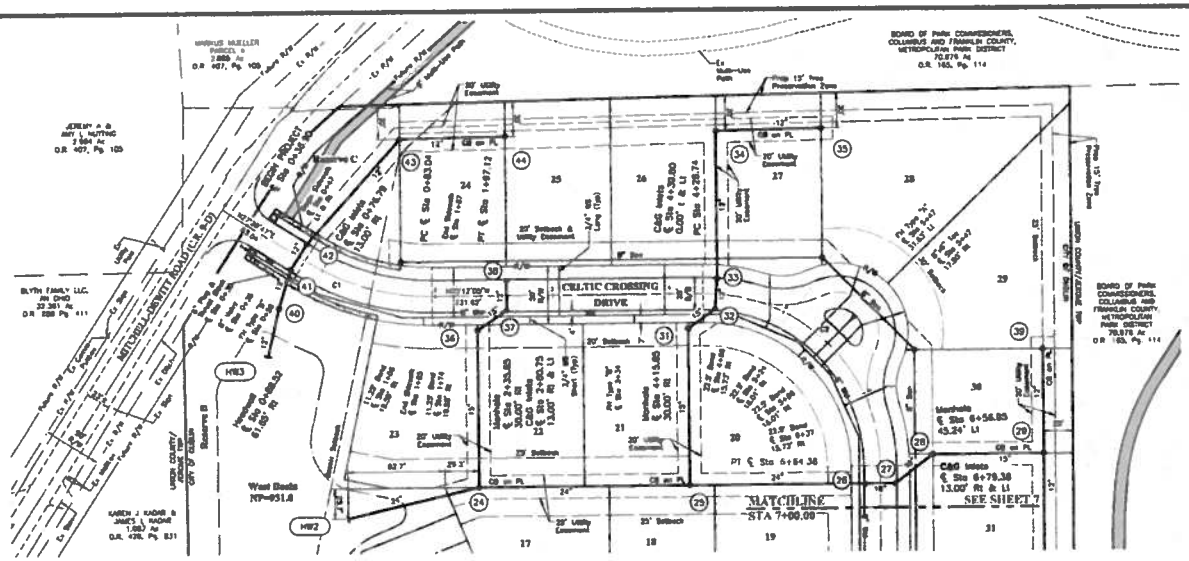
EMHT

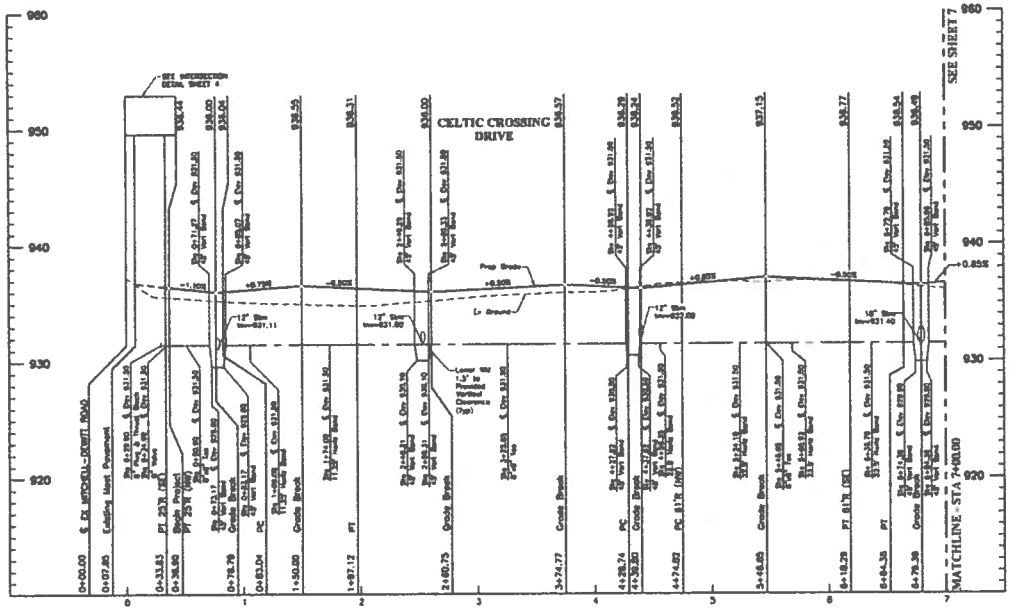
DATE
AUGUST 14, 2013

SCALE
As Noted

JOB NO.
2013-1137

SHEET
5/21





GRAPHIC SCALE

1 inch = 60 feet

LEGEND

- Proposed Storm Sewer
- Proposed Sanitary Sewer
- Proposed Watermain
- Existing Storm Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Existing Electric

C/L Curve Table					
Curve Number	Delta	Radius	Length	Tangent	Chord Distance
C1	32°40'51"	200.00'	114.08'	58.64	112.54'
C2	90°00'00"	150.00'	235.62'	150.00	212.13'

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

REVISIONS		
NUMBER	DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
PLAN & PROFILE

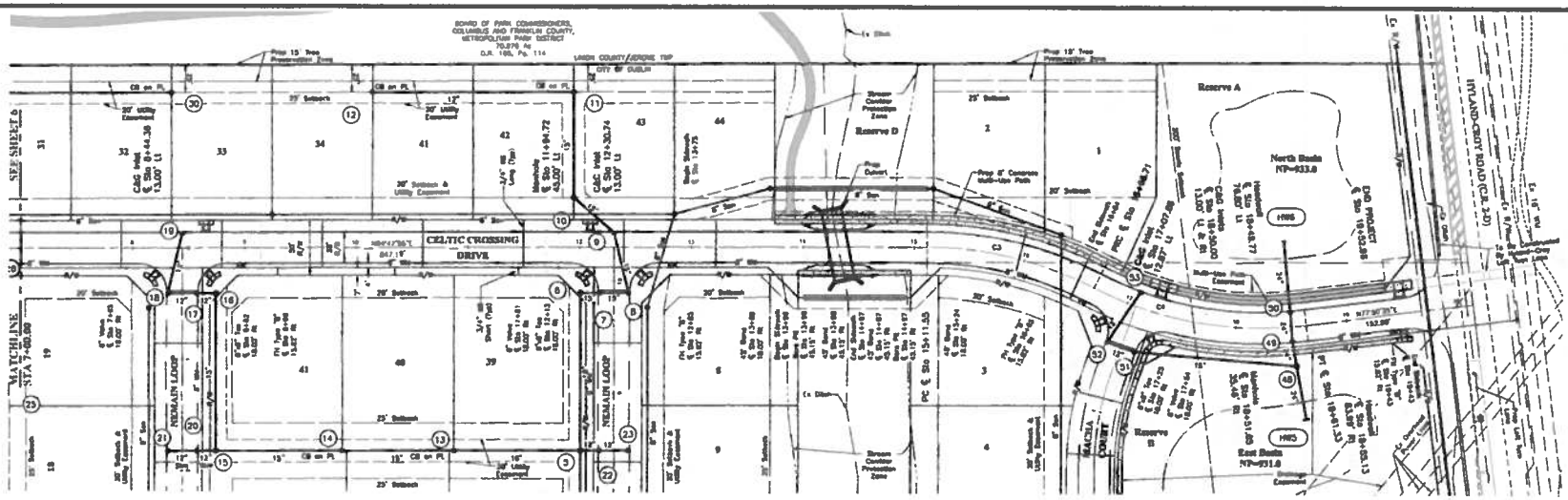
EMH&T

DATE: AUGUST 14, 2013

SCALE: 1" = 60'

JOB NO.: 2012-1137

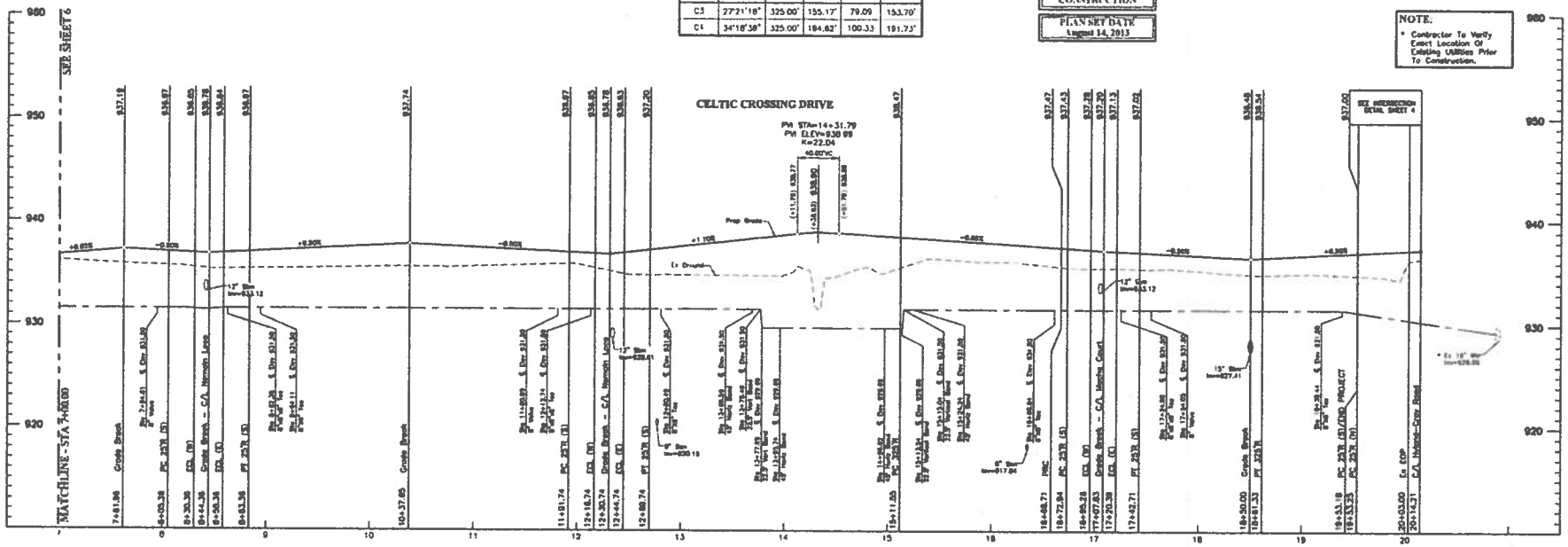
SHEET: 6/21



C/L Curve Table					
Curve Number	Delta	Radius	Length	Tangent	Chord Distance
C3	27°21'18"	325.00'	155.17'	79.09	153.70'
C4	34°18'38"	325.00'	194.62'	100.33	191.73'

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE August 14, 2013

NOTE.
* Contractor To Verify Exact Location Of Existing Utilities Prior To Construction.



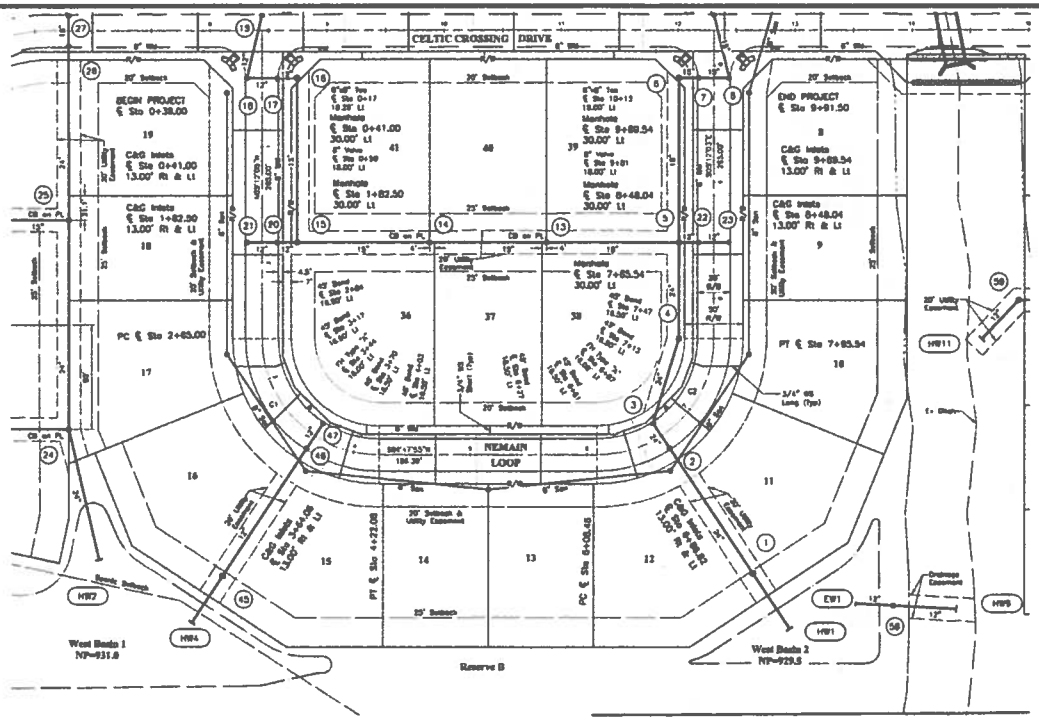
REVISIONS

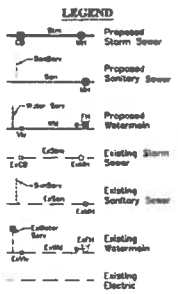
MARK	DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PWID # STREET, STORM AND WATER IMPROVEMENTS
CELTIC CROSSING
PLAN & PROFILE

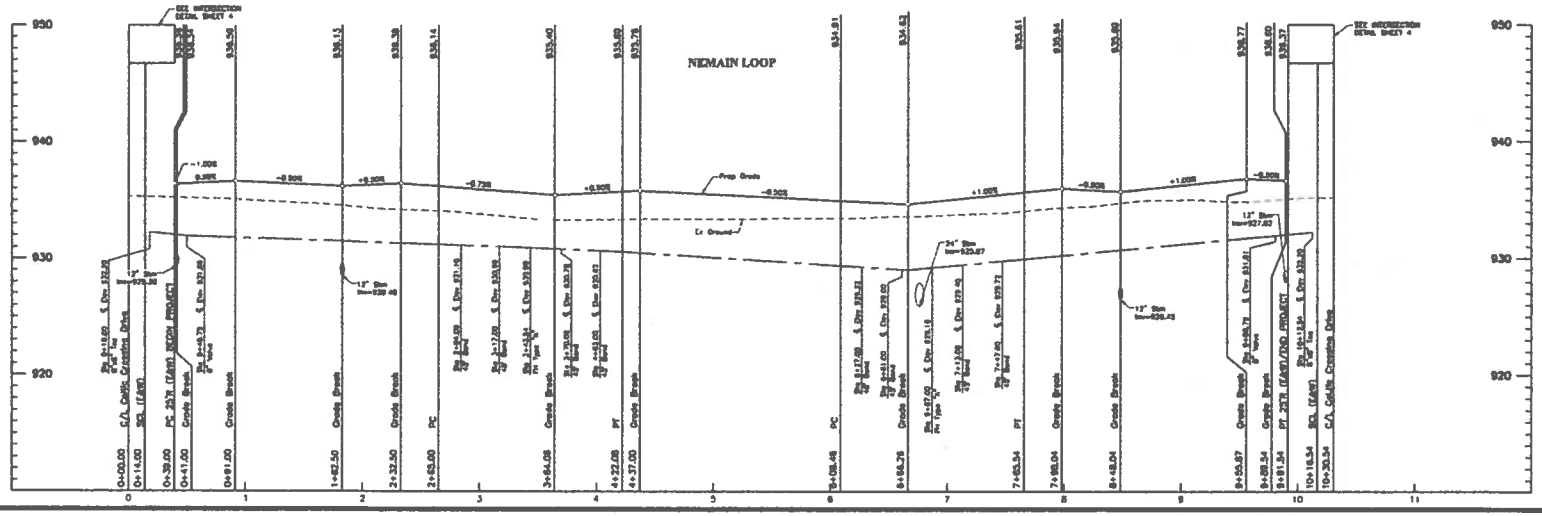
EMH&T
Engineers, Environmental Consultants & Planners, Inc.
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE: AUGUST 14, 2013
SCALE: 1" = 50'
JOB NO.: 2013-1137
SHEET: 7/21





C/L Curve Table					
Curve Number	Delta	Radius	Length	Tangent	Chord Distance
C1	90°00'00"	100.00'	157.08'	100.00	141.42'
C2	90°00'00"	100.00'	157.08'	100.00	141.42'



PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE
August 14, 2013

CITY OF BURLINGTON, LINCOLN COUNTY, COLORADO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS FOR

CELTIC CROSSING

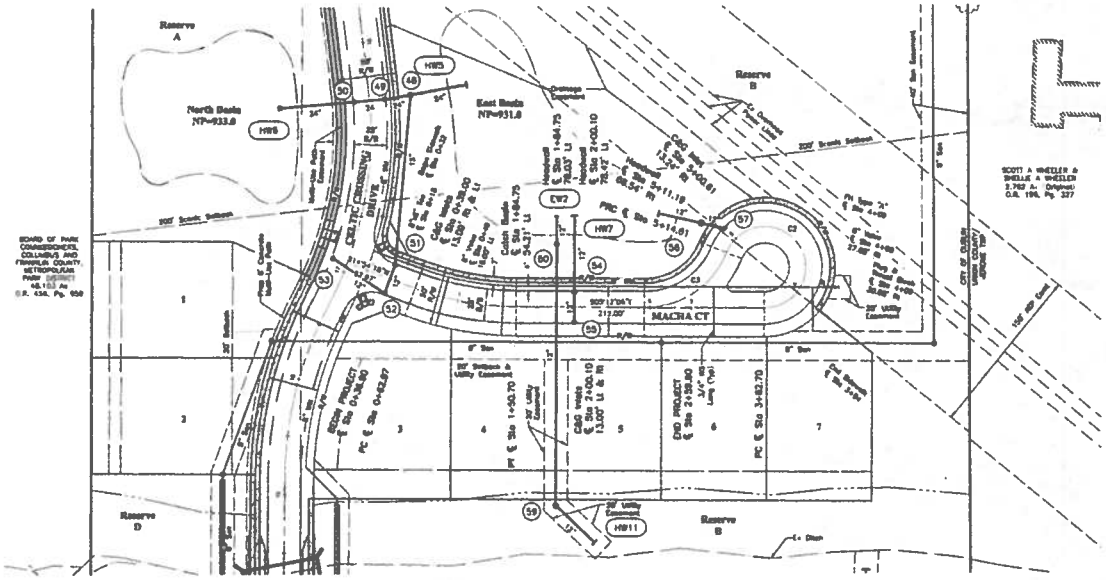
PLAN & PROFILE

EMHT

DATE: AUGUST 14, 2013
SCALE: 1" = 50'
JOB NO.: 2013-1137
SHEET: 8/21

LEGEND

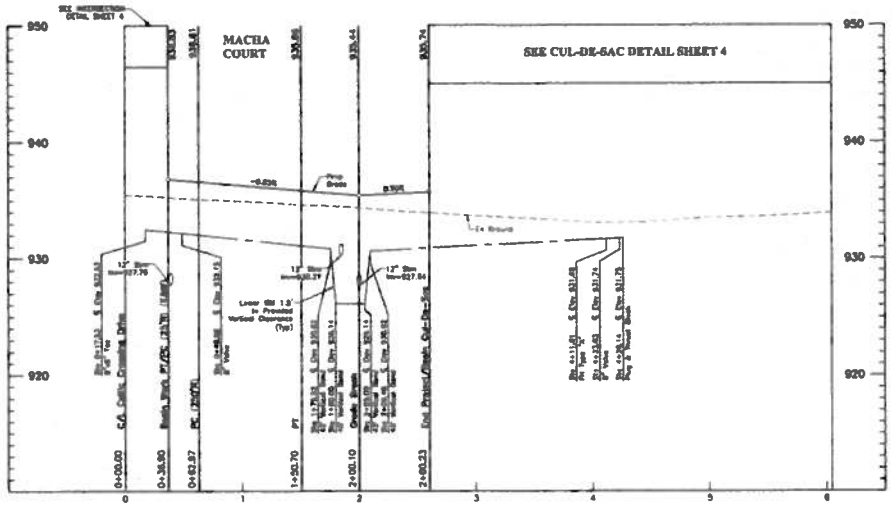
- Proposed Storm Sewer
- Proposed Sanitary Sewer
- Proposed Watermain
- Existing Storm Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Existing Electric



GRAPHIC SCALE

1 inch = 50 feet

C/L Curve Table					
Curve Number	Delta	Radius	Length	Tangent	Chord Distance
C2	248°40'35"	35.00'	151.91'	51.23	57.80'
C3	68°40'34"	75.00'	89.90'	51.23	84.61'



PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

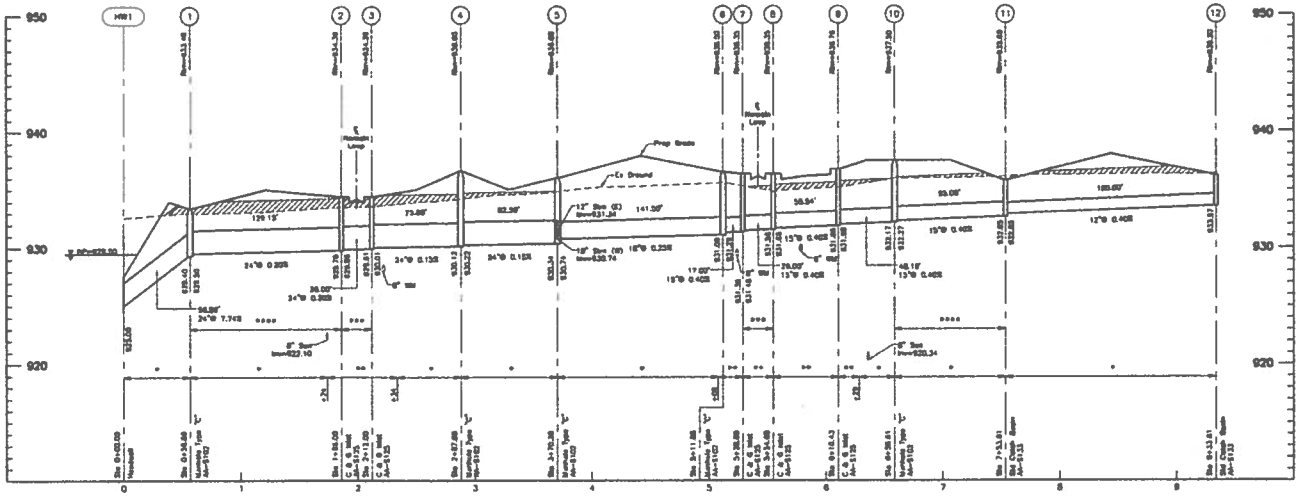
DATE	DESCRIPTION

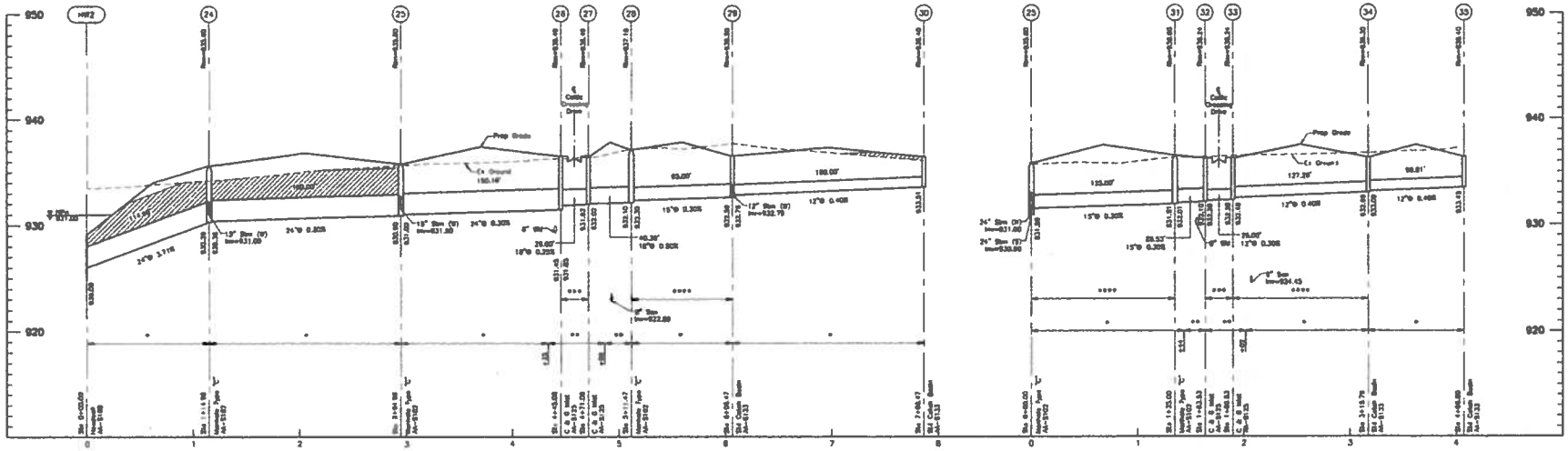
REVISIONS

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
PLAN & PROFILE

EMH&T
Earth, Water, People, Environment & Time, Inc.
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE: AUGUST 14, 2013
SCALE: 1" = 50'
JOB NO.: 2012-1137
SHEET: 9/21





Notes:

Maintain a minimum of 1.5' vertical and 10' horizontal clearance from proposed water mains.

All fills are to be placed a minimum of 2.5' above the proposed storm sewer prior to the start of sewer construction per COLS 901.04.

Denoted thus:

All backfill shall be compacted to the density of the surrounding ground unless otherwise noted:

* –Compacted Backfill Item 911

** –Compacted Granular Backfill, Item 912

*** –Concrete Encasement

**** –Reinforced Concrete Pipe, (ASTM C-76) with joints meeting ASTM C-443 requirements and with no aggregate bedding or backfill. Typical Site Yard Storm Sewer Detail see sheet 12.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

REVISIONS

COUNTY	DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
STORM SEWER PROFILES

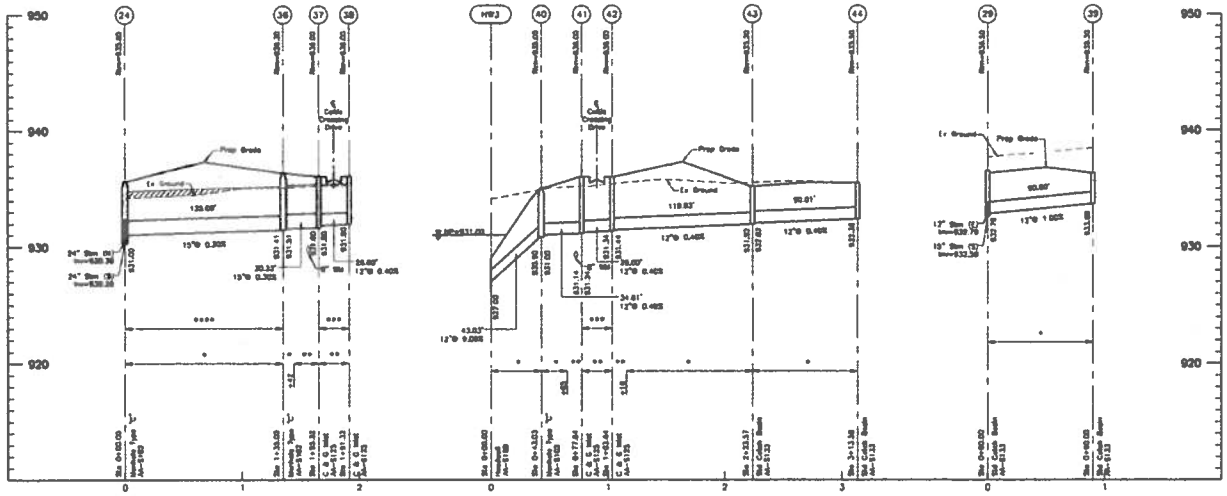
EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE
AUGUST 14, 2013

SCALE
As Noted

JOB NO.
2013-1137

SHEET
10/21



Notes:

Maintain a minimum of 1.5' vertical and 10' horizontal clearance from proposed water mains.

All fills are to be placed a minimum of 2.5' above the proposed storm sewer prior to the start of sewer construction per COLS 901.04.

Denoted thus:

All backfill shall be compacted to the density of the surrounding ground unless otherwise noted:

* –Compacted Backfill Item 911

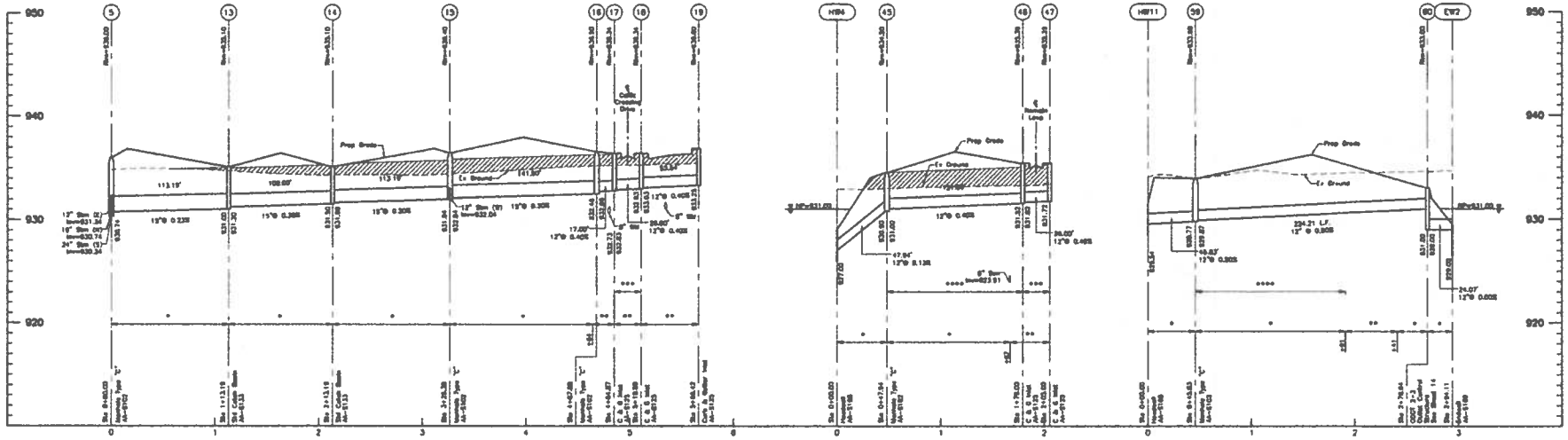
** –Compacted Granular Backfill, Item 913

*** –Concrete Encasement

**** –Reinforced Concrete Pipe, (ASTM C-76) with joints meeting ASTM C-443 requirements and with no aggregate bedding or backfill. Typical Side Yard Storm Sewer Detail see sheet 12.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013



REVISIONS	
MONTH DATE	DESCRIPTION

CITY OF DURHAM, WASHINGTON COUNTY, OREGON
PUBLIC STREETS, STORM, AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
STORM SEWER PROFILES

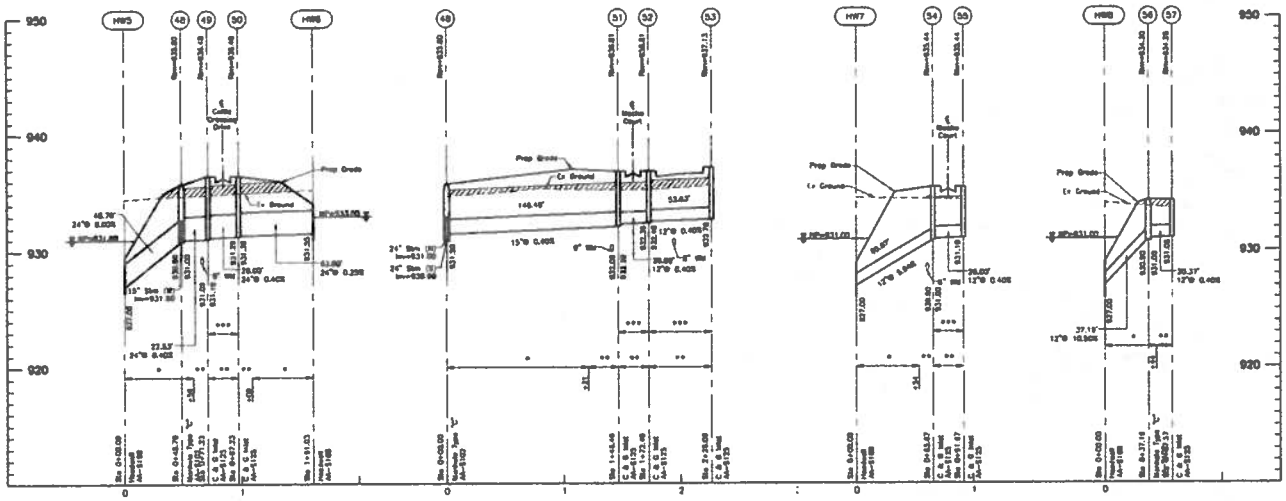
EMHT
Emery, Northwest, Northwest & Stern, Inc.
Consulting Engineers & Land Surveyors
2600 Pacific Highway, Suite 100
Portland, Oregon 97201
Phone: 503 777-2222 Fax: 503 777-2223

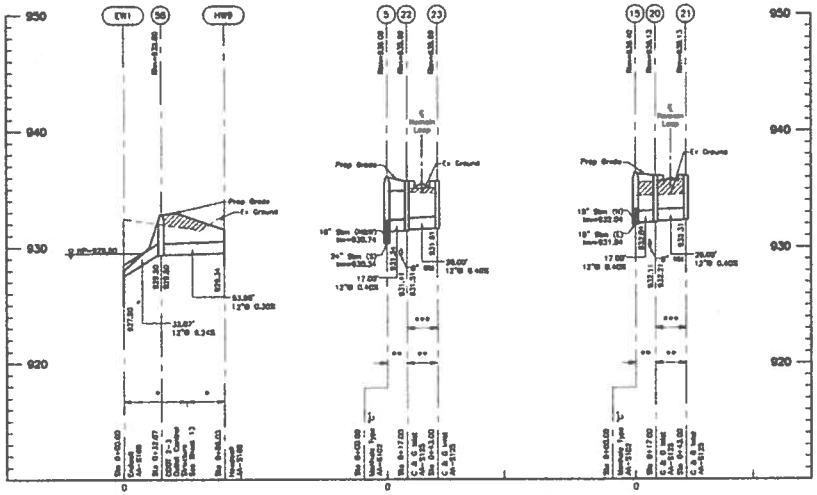
DATE: AUGUST 14, 2013

SCALE: As Noted

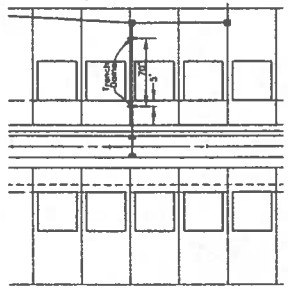
JOB No: 2003-1137

SHEET: 11/21





All storm sewer pipe along the side yard, structure to structure, is to be Reinforced Concrete Pipe (ASTM C-76) with joints meeting ASTM C-443 and with no Aggregate Bedding or Backfill.



TYPICAL SIDE YARD
STORM SEWER DETAIL
Scale 1"=60'

Notes:

Maintain a minimum of 1.5' vertical and 10' horizontal clearance from proposed water mains.

All fills are to be placed a minimum of 2.5' above the proposed storm sewer prior to the start of sewer construction per CDLS 601.04.

Denoted thus:

All backfill shall be compacted to the density of the surrounding ground unless otherwise noted:

* –Compacted Backfill Item 911

** –Compacted Granular Backfill, Item 912

*** –Concrete Encasement

**** –Reinforced Concrete Pipe, (ASTM C-76) with joints meeting ASTM C-443 requirements and with no aggregate bedding or backfill. Typical Side Yard Storm Sewer Detail see sheet 12.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

REVISIONS

MARK	DATE	DESCRIPTION

CITY OF BELLEFONTAINE, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
STORM SEWER PROFILES

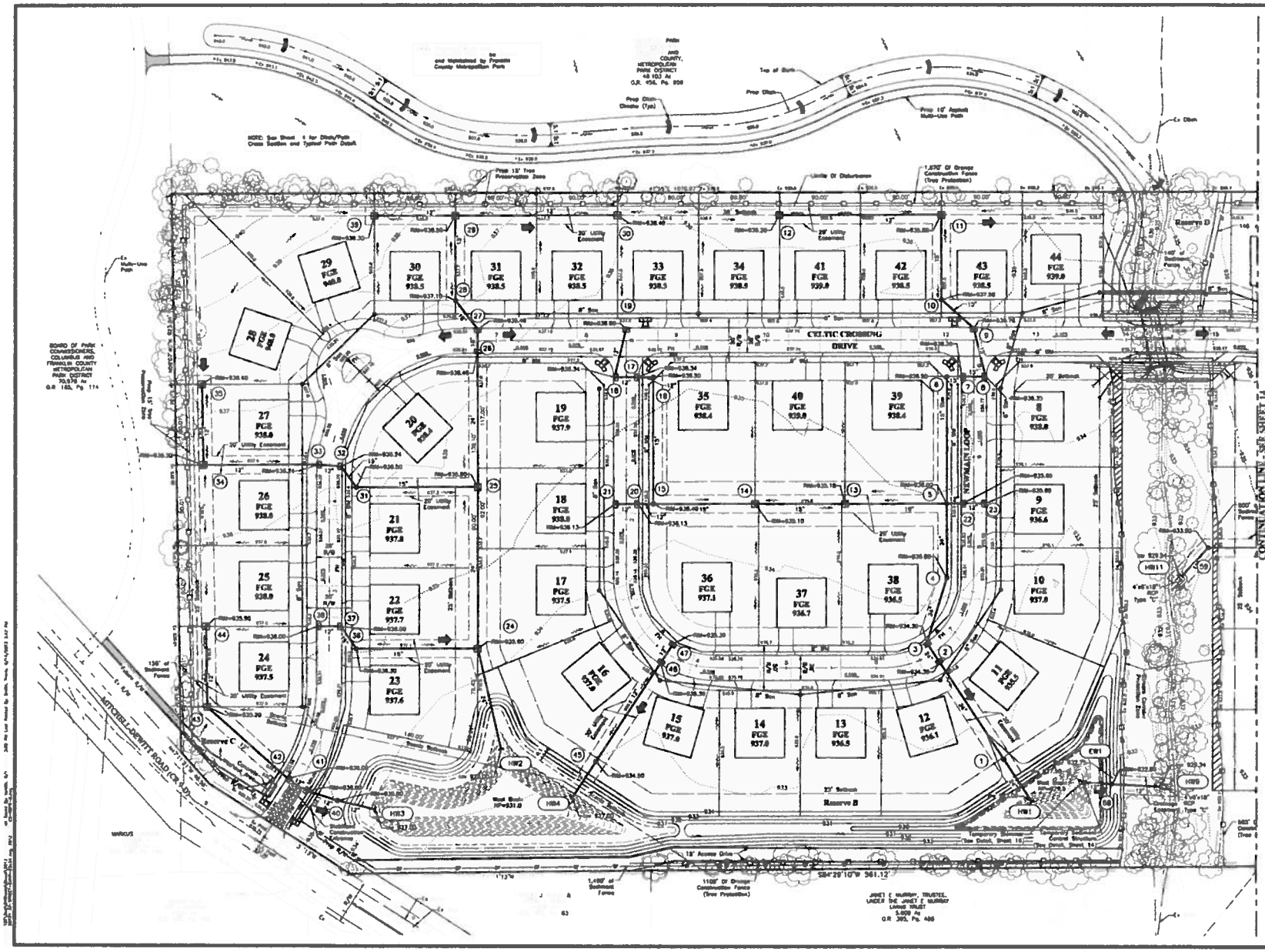
EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

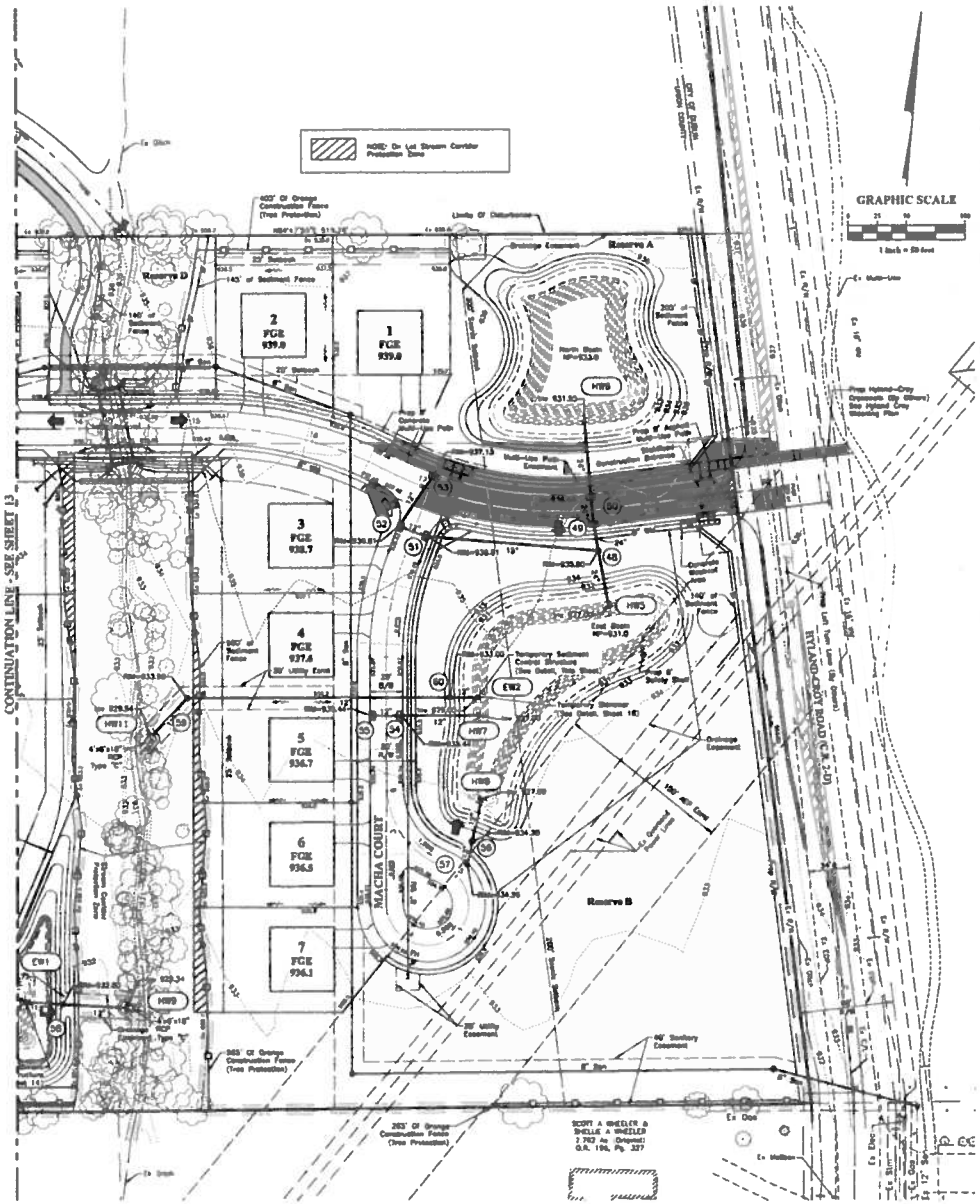
DATE
AUGUST 14, 2013

SCALE
As Noted

JOB No.
2013-1157

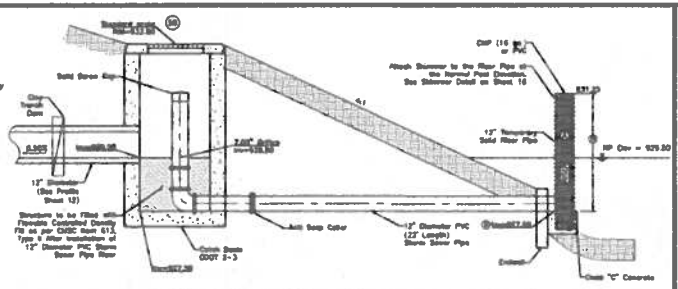
SHEET
12/21


CELTIC CROSSING DRIVE
NEW WALK LOOP
Reserve B
Reserve C
Reserve D
CONTINUATION LINE - SEE SHEET 14
AUTOBELL-DENITY ROAD (CR 43)
BOARD OF PARK COMMISSIONERS, COLUMBUS AND FRANKLIN COUNTY METROPOLITAN PARK DISTRICT
AND COUNTY, METROPOLITAN PARK DISTRICT
Prop 10' Asphalt Multi-Use Path
Prop 15' Tree Preservation Zone
20' Utility Easement
Limits Of Disturbance
1,570' Of Orange Construction Fence (Tree Protection)
1,490' of Sediment Fence
1100' Of Orange Construction Fence (Tree Protection)
Temporary Sediment Control Structure (See Detail, Sheet 16)
Temporary Sediment Control Structure (See Detail, Sheet 16)
Stabilized Construction Entrance
Concrete Washout Area
Wood Berm
Sediment Fence
Temporary Sediment Control Structure
Temporary Sediment Control Structure
Temporary Sediment Control Structure



LEGEND

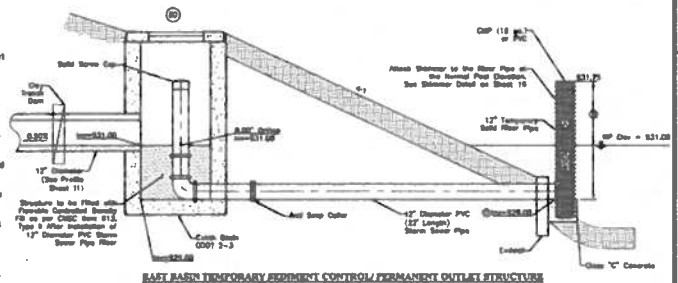
- Proposed Storm Sewer
- Proposed Sanitary Sewer
- Proposed Watermain
- Existing Storm Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Existing Electric
- Existing Gas
- Existing Minor Contours
- Existing Major Contours
- Proposed Minor Contours
- Proposed Major Contours
- Flow Arrow
- Flood Routing Arrow
- FGE Finished Grade Elevation
- Proposed Storm Inlet Protection (See Detail, Sheet 15)
- Limits of Disturbance
- Straw Bale Barrier (See Detail, Sheet 16)
- Sediment Fence Installation should be at edge of disturbance. Do not remove trees to facilitate installation. Actual placement should be determined by Construction Manager in the field. (See Detail, Sheet 15)
- Orange Construction Fence (Tree Protection)
- Stabilized Construction Entrance (See Detail, Sheet 15)
- CWA Concrete Washout Area (See Detail, Sheet 15)



WEST BASIN TEMPORARY SEDIMENT CONTROL/ PERMANENT OUTLET STRUCTURE
Not to Scale

TEMPORARY SEDIMENT CONTROL STRUCTURE SCHEDULE								
BASIN	TERRITORY ACREAGE	DISTURBED ACREAGE	REQUIRED BASIN DEWATERING VOLUME (CY/C.Y.-AC)	PROVIDED BASIN DEWATERING VOLUME	REQUIRED SEDIMENT STORAGE VOLUME (CY/C.Y. DISTURBED A.C.)	PROVIDED SEDIMENT STORAGE VOLUME	CONTROL STRUCTURE: TEMPORARY RISER PIPE DIAMETER (A)	CONTROL STRUCTURE: TEMPORARY RISER HEIGHT (B)
West Basin	18.93 Ac	17.00 Ac	1,274.5 CY	1,318.1 CY	820.2 CY	1,868.1 CY	12"	2.75'

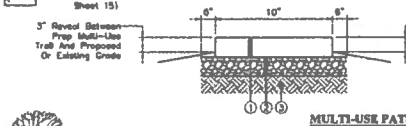
Required Dewatering Volume Drawdown > 48 Hrs.
Provided Dewatering Volume Drawdown > 70 Hrs.



EAST BASIN TEMPORARY SEDIMENT CONTROL/ PERMANENT OUTLET STRUCTURE
Not to Scale

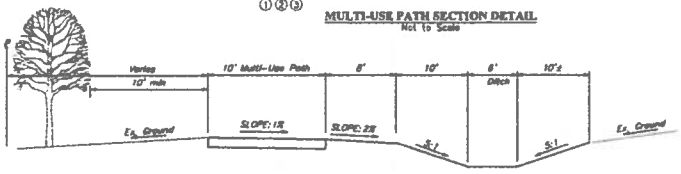
TEMPORARY SEDIMENT CONTROL STRUCTURE SCHEDULE								
BASIN	TERRITORY ACREAGE	DISTURBED ACREAGE	REQUIRED BASIN DEWATERING VOLUME (CY/AC)	PROVIDED BASIN DEWATERING VOLUME	REQUIRED SEDIMENT STORAGE VOLUME (CY/C.Y. DISTURBED A.C.)	PROVIDED SEDIMENT STORAGE VOLUME	CONTROL STRUCTURE: TEMPORARY RISER PIPE DIAMETER (A)	CONTROL STRUCTURE: TEMPORARY RISER HEIGHT (B)
East Basin	6.36 Ac	4.98 Ac	498.6 CY	613.1 CY	177.3 CY	1,302.0 CY	12"	2.75'

Required Dewatering Volume Drawdown > 48 Hrs.
Provided Dewatering Volume Drawdown > 70 Hrs.



MULTI-USE PATH SECTION DETAIL
Not to Scale

LEGEND
1. Item 448, 4" Asphalt Concrete, Type I
2. Item 304, 6" Crushed Aggregate Base
3. Compacted Subgrade



TYPICAL DITCH CROSS SECTION
Not to Scale

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

REVISIONS		
NUMBER	DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
MASTER GRADING & EROSION AND SEDIMENT CONTROL PLAN

EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE: AUGUST 14, 2013
SCALE: 1" = 50'
JOB NO.: 2013-1137
SHEET: 14/21

SITE DATA

OWNER/DEVELOPER	Dominion Homes, Inc. Attn. Mr. Steve Peck PO Box 4900 Dublin, Ohio 43018-5555 Phone: 614-358-3833 Fax: 614-358-6801
PLAN DESIGNER:	EMH&T, Inc. 5500 New Albany Road Columbus, Ohio 43054 Phone: 614-775-4500 Fax: 614-775-4800
DEVELOPMENT TYPE	Single Family
SITE ACREAGE:	28 Acres
DISTURBED ACREAGE:	26 Acres
SITE VEGETATION:	Open Field and Woods
ADJACENT AREAS:	The site is bordered to the north and East by Columbus and Franklin County Metropolitan Park, east by Hyland-Croy Road, south by Single Family Residence.
RECEIVING WATERS:	Stormwater runoff from the site is tributary to two proposed extended wet detention basin located on the east and west sides of the stream.
STORM WATER MANAGEMENT:	Site stormwater drains via proposed storm sewer to the Proposed Wet Basins that discharge into an unnamed tributary of North Fork Indian Run.
STORM WATER QUALITY:	Permanent water quality to meet OEPA standards is being provided by the Proposed Wet Basins.

SEQUENCE OF CONSTRUCTION

1. Ensure that a copy of the NOI, Ohio EPA approval letter, and the SWPPP are available on-site during working hours
2. Establish the construction exit, concrete washout pit, temporary parking, and staging area.
3. Identify the stream corridor protection zone and install orange construction fence or sediment fence along the SCPZ boundary.
4. The Contractor shall install a temporary stream crossing if needing to cross the stream prior to installation of the proposed permanent crossing
5. Construct the sediment basins and install the permanent outlet structures complete with the temporary riser pipes and skimmers. Use temporary diversion channels to route runoff to the basins prior to the installation of the storm sewer system.
6. Begin earthworks operations and bring site to grade.
7. Install utilities and storm sewer inlet protection.
8. Reference the culvert installation and dewatering filter bag details when installing the utilities across the stream and the permanent culvert.
9. Commence with construction of the single family homes.
10. Disturbed areas shall be stabilized according to temporary and permanent seeding requirements
11. Temporary sediment controls shall be removed upon permanent stabilization of the site
12. Remove the temporary risers and skimmers from the sediment basins.

TEMPORARY AND PERMANENT SEEDING

The limits of seeding and mulching are as shown within the plan as indicated by the limits of disturbance. All areas not designated to be seeded shall remain under natural ground cover. These areas disturbed outside the seeding limits shall be seeded and mulched at the Contractor's expense

TEMPORARY SEEDING

Any area which will be left dormant (undisturbed) for more than 14 days shall be seeded within 7 days of terminated work. Disturbed areas within 50 feet of a stream, first order or larger, shall be stabilized within 2 days of inactivity. Temporary seeding consists of seedbed preparation and application of seed, fertilizer, and water. Soil test is recommended to determine proper application rate of fertilizer and if lime is necessary.

PERMANENT SEEDING

Any area that is at final grade shall be seeded within 7 days of terminated work. Permanent seeding consists of seedbed preparation and application of seed, fertilizer, and water. Soil test is recommended to determine proper application rate of fertilizer and if lime is necessary. Ideal conditions for permanent seeding are from March 1-May 31 and August 1-October 15.

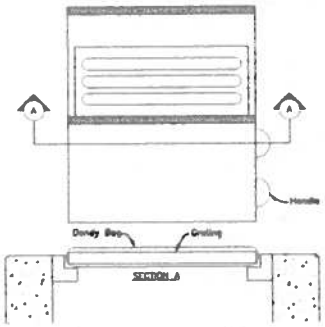
Fertilizer 12-12-12	25 lb/1000 sq. ft.
Straw Mulch	2 tons/acre
Water	300 G/1000 sq. ft.

TEMPORARY SEEDING

SEEDING DATES	SPECIES	lb./1000 sq. ft.	Per acre
March 1 to August 15	Oats	3	4 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
August 16 to November 1	Rye	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Wheat	3	2 bushel
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
	Perennial Ryegrass	1	40 lb.
	Tall Fescue	1	40 lb.
	Annual Ryegrass	1	40 lb.
Nov. 1 to Spring	Use mulch only, seeding practices or dormant seeding		

PERMANENT SEEDING

SEED MIX	SEEDING RATE lb/1000 sq.ft.	NOTES
GENERAL USE		
Creeping Red Fescue	1.6	
Kentucky Bluegrass	1.6	
Annual Ryegrass	0.8	

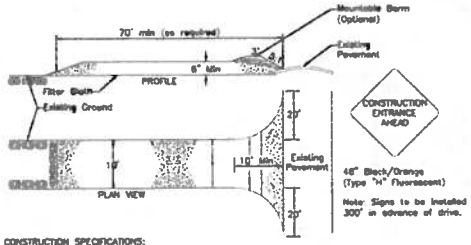


Installation: Stand grate on end. Place Dandy Bag over grate. Flip grate over so that open end is up. Pull up stack. Tuck flap in. Be sure end of grate is completely covered by flap or Dandy Bag will not fit properly. Holding handles, carefully place Dandy Bag with grate inserted into Catch Basin frame so that red dot on the top of the Dandy Bag is visible.

Maintenance: After silt has dried, remove it from the surface of Dandy Bag with broom.

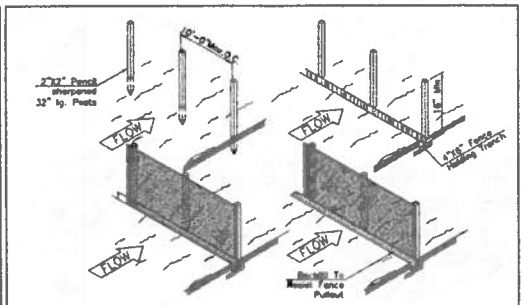
For Structures – 3, 4, 5, 19, 20, 21, 22, 32, 33, 35, 36, 37, 38, 39, 40, 41, Ex 8, Ex 12 & Ex 13

DANDY BAG DETAIL
Not To Scale



CONSTRUCTION SPECIFICATIONS:
1. Stone Size – Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length – 70' minimum
3. Thickness – Not less than six (6) inches.
4. Width – Fifteen (15) feet minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth – will be placed over the entire area prior to placing of stone.
6. Surface Water – All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance – The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measure used to trap all sediment spilled, dropped, washed or tracked onto public rights of way must be removed immediately.
8. Washing – Wheels shall be cleaned to remove sediment prior to entrance onto public right-of-ways. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE
Not To Scale



Sediment fence fabric shall be ODOT, Type C Geotextile fabric or the equivalent to the following properties:

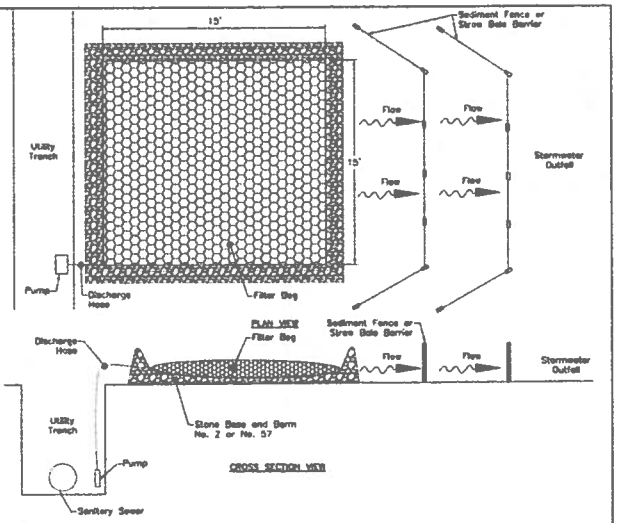
MATERIAL PROPERTIES

MAXIMUM TENSILE STRENGTH	120 lbs
MAXIMUM ELONGATION AT	80 LBS
MAXIMUM ELONGATION AT 60 LBS.	50%
MINIMUM TEAR STRENGTH	40 lbs
MINIMUM BURST STRENGTH	200 psi
APPARENT OPENING SIZE	0.84 mm
MINIMUM PERMITTIVITY	1×10^{-2} sec.
ULTRAVIOLET EXPOSURE STRENGTH RETENTION	70%

SILT FENCE:
This sediment barrier utilizes standard strength synthetic filter fabrics. It is designed for situations in which only sheet or overland flows are expected. Material properties are listed in the provided table.
1. The height of a silt fence shall not exceed 16-inches (higher fences may impound volumes of water sufficient to cause failure of the structure).
2. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of a 6 inch overlap, and securely sealed.
3. Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 16-inches). Wood posts will be a minimum of 32" long when extra strength fabric is used without the wire support fence.
4. A trench shall be excavated approximately 4-inches wide and 6-inches deep along the line of posts and upslope from the barrier.
5. The standard strength filter fabric shall be stapled or wired to the fence, and 8-inches of the fabric shall be extended into the trench. The fabric shall not extend more than 16-inches above the original ground surface. Filter fabric shall not be stapled to existing trees.
6. The trench shall be backfilled and soil compacted over the filter fabric.
7. Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.
8. To prevent water ponded by the silt fence from flowing around the ends, each end shall be constructed upslope so that the ends are at a higher elevation.

MAINTENANCE:
Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

ORANGE SEDIMENT FENCE DETAIL
Not To Scale



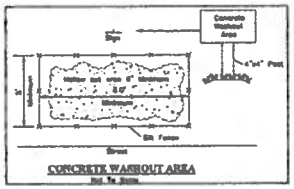
Installation:
The Contractor shall pump muddy water encountered within the utility trench into a filter fabric bag. The bag shall be placed within a level undisturbed area as far away from the stormwater outfall as possible. The bag shall be placed on top of a aggregate pad. Additionally, a perimeter aggregate berm shall be constructed around the bag. Perimeter controls such as straw bale barriers or sediment fence shall be utilized along the downstream side of the bag. The perimeter controls shall be installed to ensure that the water flowing out of the bag does not flow around the ends of the controls. Upon completion, the bag shall be removed to an area away from the stormwater outfall and spread. The accumulated sediment shall be spread out to allow to dry and stabilized with vegetation. Filterbag shall be AMI Enviro-Protection Filter Bag, size is 15'x15' or equal.

Maintenance:
The filter bag shall be replaced when the bag is half filled with sediment.

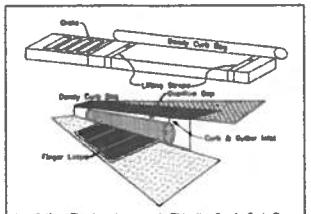
The Contractor shall contact the project inspector/engineer for consultative services if dewatering activities overwhelm the filter bag and perimeter controls.

TRENCH DEWATERING FILTER BAG
Not To Scale

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE
AUGUST 14, 2013



CONCRETE WASHOUT AREA
Not To Scale



Installation: Stand grate on end. Slide the Dandy Curb Bag on with Dam on top of the grate. Pull all excess down. Lay unit on its side. Carefully tuck flap in. Press Velcro strips together. Install the unit making sure front edge of grate is inserted in frame first then lower back into place. Press Velcro dots together which are located under lifting straps. This insures straps remain flush with gutter.

Maintenance: With a stiff bristle broom sweep silt and other debris off surface after each event.

For Structures – 6, 7, 15, 16, 17, 18, 23, 24, 26, 27, 28, 29, 30, 31

DANDY CURB BAG
Not To Scale

REVISIONS

DATE	DESCRIPTION

CITY OF DUBLIN, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
EROSION AND SEDIMENT CONTROL NOTES & DETAILS

EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE
AUGUST 14, 2013

SCALE
1" = 60'

JOB NO.
2012-1137

SHEET
15/21

Wet Basin

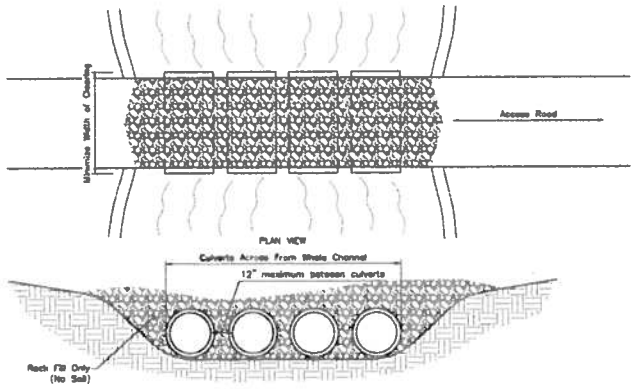
Inspection Item	Maintenance Procedures	Frequency of Inspection
Inlet/Outlet Structure & Side Slopes	• Do not fertilize vegetation surrounding basin • Remove accumulated sediment and debris from inlet and outlet structures • Mow side slopes	Monthly
Basin Embankment	• Repair undercut/eroded areas and stabilize	Every 6 months
Storm Sewer System	• Remove debris from the sewer system to ensure positive flow to the basin.	Every 6 months
Stormwater Basin	• Inspect for damage, paying particular attention to the outlet control structure • Check for signs of outsoptic conditions (signs bullfrog) • Note signs of hydrocarbon build-up, remove appropriately • Monitor sediment accumulation in the facility • Examine to ensure inlet and outlet devices are free of debris and are operational. • Inspect for invasive vegetation if wetland components included	Annually
Stormwater Basin Sediment Accumulation	• Monitor sediment accumulations, and remove sediment when the pool volume has become reduced significantly (25% of permanent pool volume test), or the pond becomes untrophic	5 to10 years

The Owner shall be responsible for the inspection and maintenance of the stormwater basin, associated outlet structure and all other maintenance procedures listed above. Inspections and maintenance that are conducted shall be documented and filed for future reviews by the City of Columbus, Division of Sewerage & Drainage. Sample log sheets for the various storm items items are found in the Stormwater Drainage Manual (SWDM) Appendix E. These responsibilities are for perpetuity and apply to this subdivision and its residents or any future owners.

Stormwater Basins treat incoming stormwater runoff by physical, biological, and chemical processes. The primary removal mechanism is the gravitational settling of particulates, organic matter, metals, bacteria and organics as stormwater runoff resides in the basin. Another mechanism for pollutant removal is uptake by algae and wetland plants in the wet basin permanent pool, particularly removing nutrients. Other contaminants such as hydrocarbons are broken down and dominated by volatilization and chemical activity. Stormwater Basins are utilized to remove 80% of the total suspended solids load in typical urban post-development runoff when designed and maintained properly.

Stormwater basins naturally collect sediment, including gravel, sand, and silt, as well as other debris the filter. To maintain its capacity and function, a basin should be kept free of excessive debris, litter, and sediment. The permanent pool for the proposed basin is designed to be eight feet in depth. This design depth should be verified every 5-10 years to ensure that the basin still continues to function properly. Property owners or contracted personnel shall use a boat, canoe, kayak, or similar means to position themselves in the middle of the stormwater basin. Several measurements around center of the stormwater basin shall be taken using a Sheetz Rod to determine the depth of the permanent pool. Measurements taken when basin water level is at N.P. Elevation (like 72 hours after rain event. Once the depth of the stormwater basin reaches four feet or less, the accumulated sediment shall be excavated to restore the permanent pool depth to eight feet in depth. The stormwater basin is to be temporarily drained/dewatered open so that the accumulated sediment can be removed. Sediment excavated from stormwater basin is required to be tested to determine where to appropriately dispose the material offsite. Sediment removed from the stormwater basin should be placed properly until disposed to ensure no exposure to stormwater runoff and properly disposed of per local guidelines.

INSPECTION AND MAINTENANCE



NOTES:
1. Culverts should be placed on existing streambed.
2. Culvert size should be at least three times the stream depth, during normal flow, at the crossing. Minimum culvert size is 18 inches.
3. Culverts should be spaced along the entire width of the stream channel with no more than 12 inches of spacing between each one.
4. Rock, stone, or aggregate is the only material to be placed around culverts. Minimum size accepted is ODOT No. 1.
5. Stormwater runoff from construction road shall be diverted to a sediment control structure prior to reaching crossing.
6. Streambanks shall be stabilized upon removal of culverts to prevent erosion.

TEMPORARY STREAM CROSSING
Not to Scale

CHANNEL FLOW APPLICATIONS

Bales shall be placed in a single row, lengthwise, oriented perpendicular to the contour, with ends of adjacent bales tightly abutting one another.

The remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following addition.

The barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to ensure that sediment-laden runoff will flow either through or over the barrier but not around it.

Note: Hay bales may be used in place of straw bales.

MAINTENANCE

Straw bales shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.

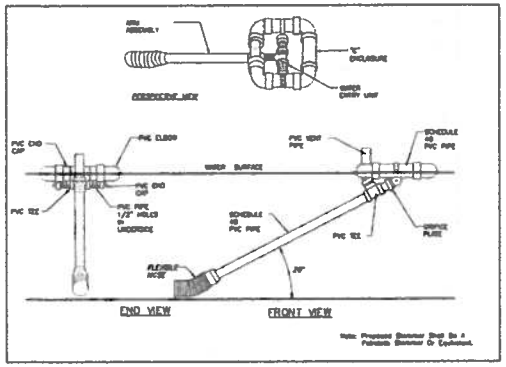
Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales.

Necessary repairs to barriers or replacement of bales shall be accomplished promptly.

Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.

Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

STRAW BALE BARRIER
Not to Scale



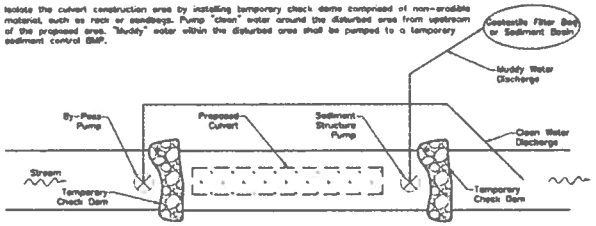
SKIMMER SPECIFICATIONS			
	Skimmer Diameter Size (Inches)	Skimmer Orifice Diameter (Inches)	Skimmer Pipe Length (Feet)
West Basin	4.00	3.70	8.00

TEMPORARY SEDIMENT BASIN DEWATERING CONTROL STRUCTURE
Not to Scale

SKIMMER SPECIFICATIONS			
	Skimmer Diameter Size (Inches)	Skimmer Orifice Diameter (Inches)	Skimmer Pipe Length (Feet)
East Basin	3.00	2.70	8.00

TEMPORARY SEDIMENT BASIN DEWATERING CONTROL STRUCTURE
Not to Scale

Isolate the culvert construction area by installing temporary check dams comprised of non-erodible material, such as rock or sandbags. Pump "clean" water around the disturbed area from upstream of the proposed area. "Muddy" water within the disturbed area shall be pumped to a temporary sediment control BMP.



CULVERT INSTALLATION SEDIMENT CONTROL DETAIL
Not to Scale

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

REVISIONS		
MONTH	DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
EROSION AND SEDIMENT CONTROL NOTES & DETAILS

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5500 New Albany Road, Columbus, OH 43054
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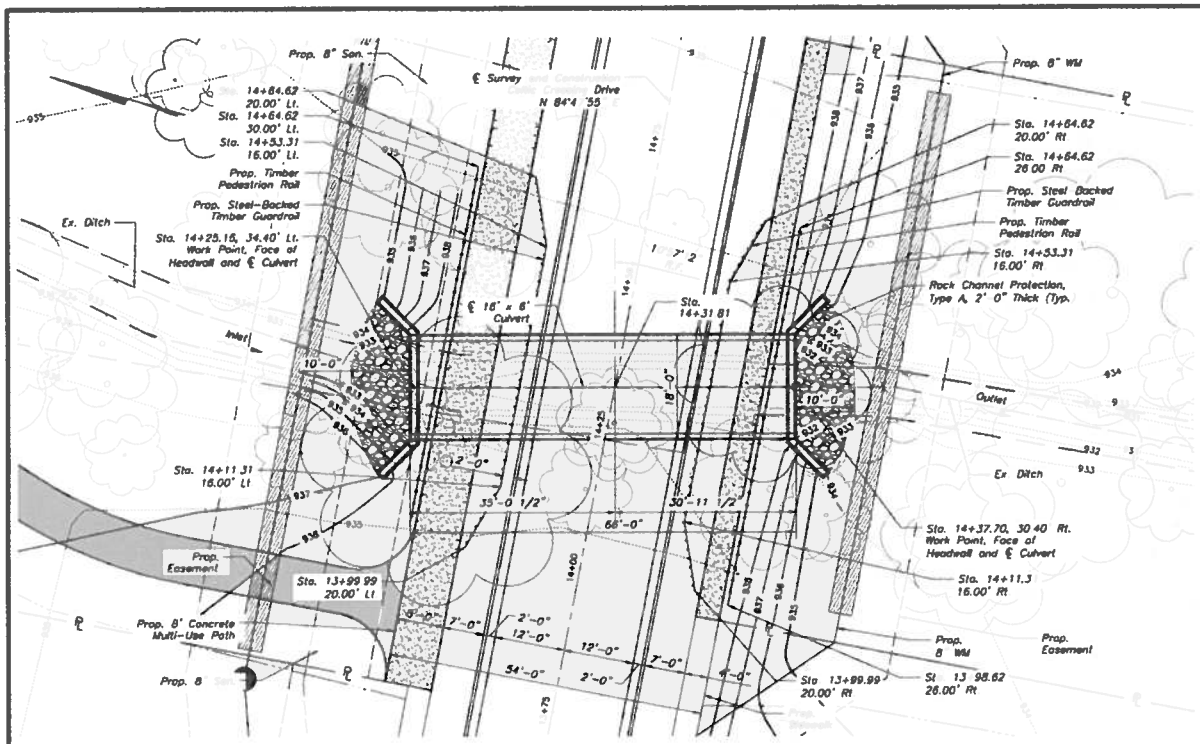
DATE
AUGUST 14, 2013

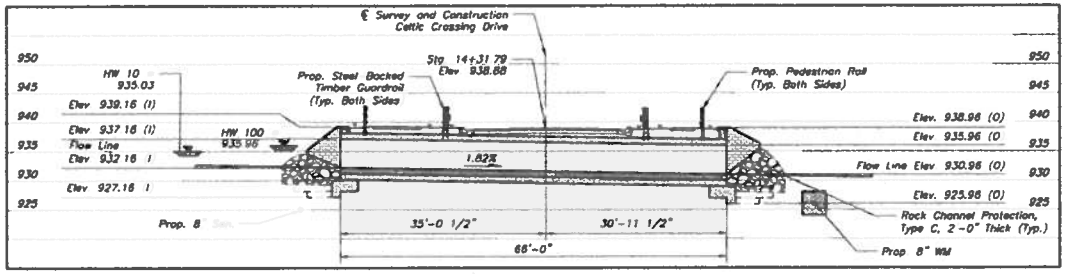
SCALE
As Noted

JOB NO.
2012-1137

SHEET
16/21



SITE PLAN



PROFILE ALONG CENTERLINE CULVERT

HYDRAULIC DATA

Drainage Area = 0.77 Sq. Mi.
Q10 = 179 cfs, V10 = 5.09 ft/s, HW10 = 935.03
Q100 = 313 cfs, V100 = 3.22 ft/s, HW100 = 935.96

Bench Marks

(NAVD 88)

Source BM
Aluminum disk in the northwest corner of Hyland-Cray Road bridge over North Fork Indian Run in Union County, 107 feet south of the centerline of Mitchell-Dewitt Road, 20 feet west of the centerline of Hyland Cray Road.
Elev. = 929.664

BM#1
Chiseled square on top of the north end of a 66 inch concrete storm pipe located on the north side of Mitchell-Dewitt Road, 750 feet west of Hyland-Cray intersection.
(N=778040.6150 E=1777931.7440) Elev. = 929.34

BM#4
Chiseled "X" on the south bolt of the third fire hydrant north of the intersection of Hyland-Cray Road and Mitchell-Dewitt road on the east side of Hyland-Cray Road.
(N=778546.3475 E=1778537.5330) Elev. = 932.34

PROPOSED STRUCTURE DATA

Type: 16' x 6' Precast Four-Sided Box Culvert
Roadway: 28'-0" F/F Curb
Design Loading: HL-93
FWS: 60 psf
Wearing Surface: Asphalt Concrete
Skew Angle: 10°57'12" R.F.
Alignment: Tangent
Latitude: N40°8'15.3"
Longitude: W83°10'55.4"

LEGEND

℄ = Centerline
Dia. = Diameter
Elev. = Elevation
Ex. = Existing
Prop. = Proposed
HW = High Water
Sta. = Station
Typ. = Typical
Min. = Minimum
C.J. = Construction Joint
F/F = Face to Face
Spa. = Spaced
Cr. = Clear

GRAPHIC SCALE

0 5 10 20

1 inch = 10 feet

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

REVISIONS

DATE	BY	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREETS, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
BOX CULVERT SITE PLAN AND PROFILE

EMH&T

DATE
AUGUST 14, 2013

SCALE
As Noted

JOB NO.
2013-113

SHEET
17/21

CULVERT GENERAL NOTES

The following specification sections among others shall be adhered to while constructing this structure.

ODOT CMS 501	ODOT CMS 518
ODOT CMS 503	ODOT CMS 601
ODOT CMS 508	ODOT CMS 611
ODOT CMS 509	ODOT CMS 703
ODOT CMS 511	ODOT CMS 717
ODOT CMS 516	

PROPOSED STRUCTURE
The proposed structure shall be a 18' span x 6' rise Precast Reinforced Concrete Four-Sided Box Culvert with reinforced concrete footings, wingwalls, and headwalls.

DESIGN SPECIFICATIONS
This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway and Transportation Officials, 2002, including the Interim Specifications, and the ODOT Bridge Design Manual. Construction & Materials shall conform to the Construction & Materials Specifications Manual from ODOT, 2013.

BASIS AND METHOD OF PAYMENT
The Precast Concrete Box Culvert shall be paid for at the lump sum contract price bid for the Culvert complete in place. The bid shall include, but not be limited to, all tools, labor, materials, equipment and incidentals necessary to install the culvert, headwall, wingwalls and foundations detailed on these plans.

DESIGN LOADING
HL-93
Future Wearing Surface (FWS) of 0.050 kips/SQ FT.

DESIGN DATA
Earth Cover = 1'-0" - 2'-0"±

Concrete Class QC1 = Compressive Strength 4000 p.s.i.

Epoxy Coated Reinforcing Steel = ASTM A615, A616 or A617 Grade 60 = minimum Yield Strength 60,000 p.s.i.

PRECAST CONCRETE
The design of the Precast Reinforced Concrete Four-sided Box Sections shall be in accordance with the 2013 ODOT CMS (Construction and Materials Specifications) Item 706.03, and is the responsibility of the fabricator. The Contractor and/ or fabricator shall produce a letter of certification, verifying that the precast components meet the stated loading criteria. This certification shall be submitted to the City of Dublin Engineer's office and EMH&T for their records.

Precast Box Sections will be accepted by the City of Dublin after all shop drawings and fabrication inspections have been deemed acceptable.

Wingwall concrete above top of footing shall not be cast until precast box culvert units are placed.

WINGWALLS AND HEADWALLS
The Contractor may propose Precast Wingwalls and/or Headwalls as an alternate to cast-in-place. This will be allowed upon approval by the City of Dublin Engineer's Office and done at no additional cost to the Project. Precast footings will not be allowed at any time. If the precast option is exercised, the complete design, review and detailing, if the alternate design shall be the responsibility of the contractor and/ or the contractor's fabricator. This includes any cast-in-place foundation that may be required for the precast wingwall alternate.

Precast walls shall be designed for the following minimum requirements:
- Design loading as shown in the plan notes.
- Allowable foundation bearing pressure as shown in the plan notes.
- Factor of safety of at least 1.5 for sliding and 2.0 for overturning.
- Additionally, precast walls that are not rigidly connected to a spread footing with a moment connection shall be mechanically anchored to the adjacent culvert section.

As there are many different precast wingwall and/or headwall systems available, detailed plans for the selected system shall be signed and sealed by a Professional Engineer, registered in the State of Ohio. The plans shall be complete with foundation requirements and detail any necessary mechanical connections at the culvert interface.

EMH&T does not warrant that its plans and specifications describe an improvement that is suitable for the use of precast wingwalls and/or headwalls. The contractor shall verify subsurface conditions, including utility locations, prior to fabricating precast wingwalls and/or headwalls. No additional payment will be made for adjustments to pipes, grades, utilities, or any other item resulting from the use of precast wingwalls and/or headwalls.

UTILITY LINES
All expense involved in relocating/installing the affected Utility Lines shall be borne by the Utility(ies). The Contractor and Utility(ies) are to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

INSTALLATION
The structure shall be installed in accordance with Item 611.

SHOP DRAWINGS
The Contractor shall submit reinforcing steel shop drawings to City of Dublin Engineer's Office and to EMH&T, which will determine whether the proposed reinforcing and dimensions conform to the plans and specifications.

The Contractor shall submit a complete set of shop drawings for the precast concrete box sections, precast headwalls and precast wingwalls (if applicable), for review to City of Dublin Engineer's Office and to EMH&T. EMH&T will review the size, location, and dimensions, solely for geometric conformance to the plans.

REINFORCING STEEL
Spacing of bars is from center of bars. Minimum lap lengths, No. 5 bar = 2'-5".

The clearance of reinforcing steel from the face of the concrete shall be 2" minimum unless otherwise shown.

MEMBRANE WATERPROOFING
Membrane waterproofing, Sheet Type 3, Shall be applied to the top surface of the precast sections and shall extend 1'-0" vertically down the sides of the culvert. Type 2 Waterproofing, shall be applied vertically from the sides of the culvert. The exterior joint gap on the top and slope between the precast culvert sections shall be filled with Portland Cement Mortar prior to installing the membrane waterproofing.

POROUS BACKFILL WITH FILTER FABRIC
1'-6" Thick, shall be placed behind the wingwalls and along the sides of the precast box culvert, and shall extend from 1'-0" below the embankment surface to 6" below the weephole locations.

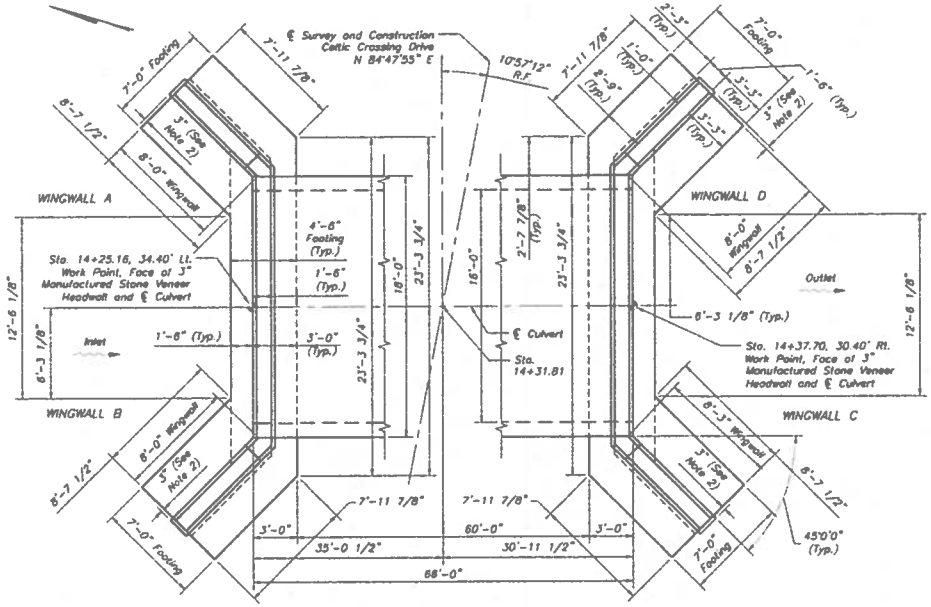
FOUNDATION BEARING PRESSURE
The design foundation bearing pressure is 2 ksf under the box culvert, cut-off wall foundation and wingwall footings. If unsuitable bearing material occurs at the bottom elevation, lower the grade elevation to over excavate, then replacing with suitable bearing material. The suitability of the bearing material shall be verified by a Registered State Engineer employed by the City of Dublin. Any changes in the footing must be approved by the Owner. State Engineer shall submit a written report to the City of Dublin, attesting to the bearing pressure. The report shall be signed and sealed by a Professional Engineer. The cost to be included in the lump sum bid price for the Culvert.

BEVELED EDGES
All exposed edges shall be beveled as per ODOT CMS 508 unless otherwise shown.

PREFORMED EXPANSION JOINT FILLER
1" P.E.J.F. (Preformed Expansion Joint Fiber) shall be placed between the cast-in-place wingwalls and the precast box culvert.

STONE VENEER
All Exposed Sides shall have a stone facing. Manufactured synthetic stone veneer shall be Great Lakes Limestone as manufactured by Dutch Quality Stone, Inc. (1-877-350-7868) or an approved alternative. Mortar and grouting type shall be per the manufacturer's instructions. Use type "S" mortar. The precast concrete (if applicable) shall be acid washed and a scratch course of mortar shall be applied and cured before placement of stone. The stone shall be placed in a random pattern similar to that on the Avery/Muirfield Bridge at US-33/SR-161 in Dublin. The stone must cover all exposed surfaces and shall extend four inches below final grade.

POLYSULFIDE CAULKING
Caulk vertical joints of stone veneer with Polysulfide Caulking material manufactured for outdoor masonry. Color to be beige. Methods, procedures and materials shall adhere to manufacturer's specifications.

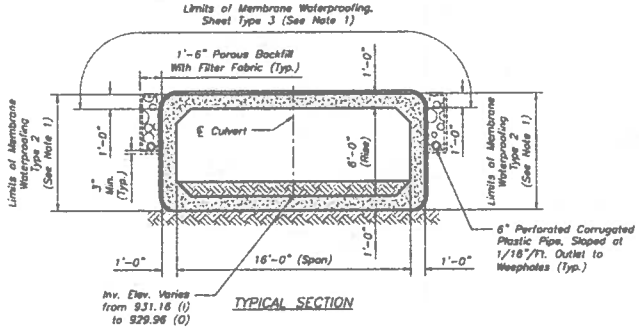


CULVERT PLAN

NOTE

1. Continue Waterproofing past the end of the Precast Units to Lap 9" (Min.) onto Backside of Wingwall, covering the Precast/ Wingwall Vertical Joint.

2. Wrap 3" Manufactured Stone Veneer around face of wingwalls.



TYPICAL SECTION

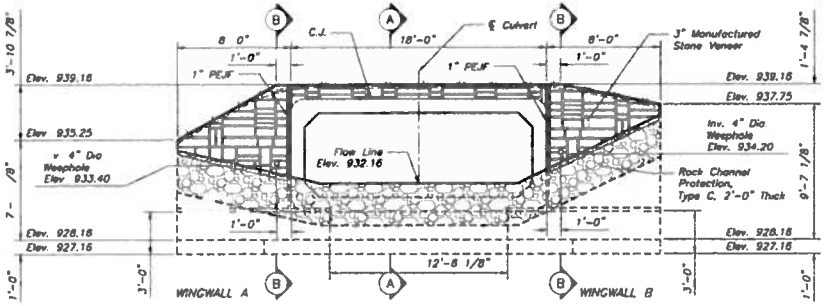
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE August 14, 2013

MARK	DATE	DESCRIPTION

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
CELTIC CROSSING
CULVERT GENERAL NOTES AND DETAILS

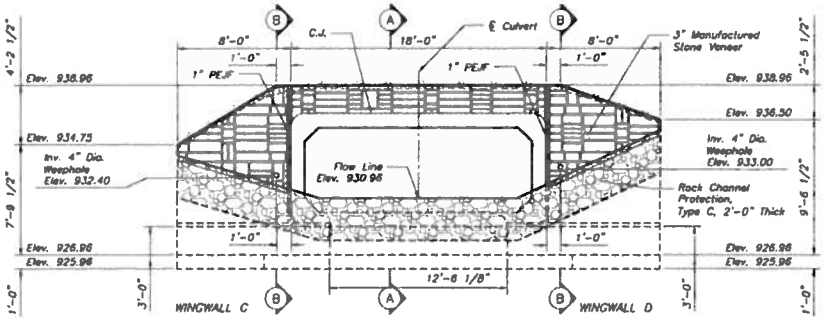
EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
CERTIFICATE OF AUTHORIZATION

DATE: AUGUST 14, 2013
SCALE: As Noted
JOB NO.: 2013-113*
SHEET: 18/21



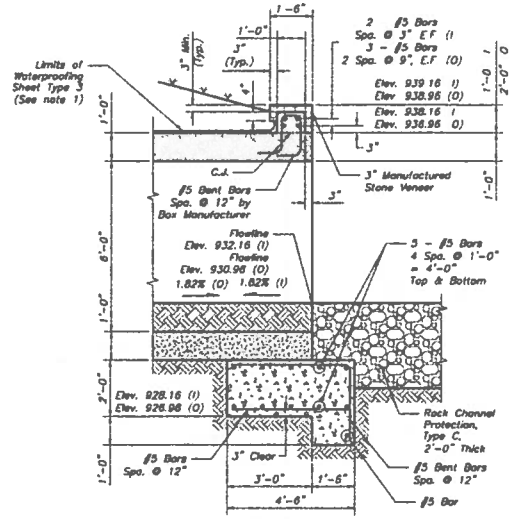
INLET WINGWALL ELEVATION

Dimensions Measured Along Outside Face of Concrete

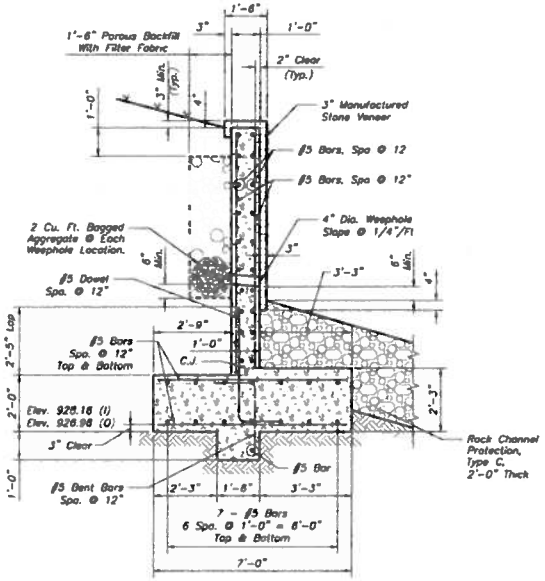


OUTLET WINGWALL ELEVATION

Dimensions Measured Along Outside Face of Concrete



SECTION A–A



SECTION B–B

NOTE

1 Continue Waterproofing past the end of the Precast Units to Lap 9" (Min. onto Backside of Wingwall, covering the Precast/ Wingwall Vertical Joint

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE
August 14, 2013

REVISIONS

MARK	DATE	DESCRIPTION

CITY OF HUDSON, SUMMIT COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
FOR
CELTIC CROSSING
CULVERT ELEVATIONS AND CROSS SECTIONS

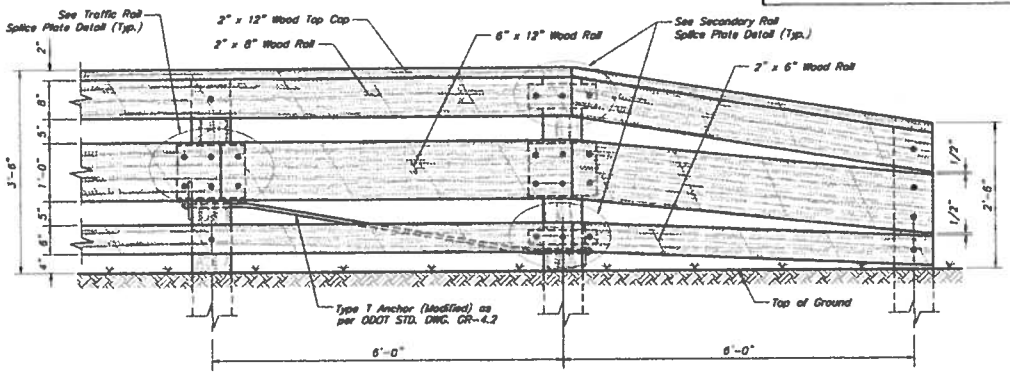
E.M.H.T.

DATE
AUGUST 14, 2013

JOB NO.
2012-1137

SHEET
19/21

See Landscape Plan for Fence and Guardrail Color.



DETAIL AT GUARDRAIL END FLARE

RAILING NOTES

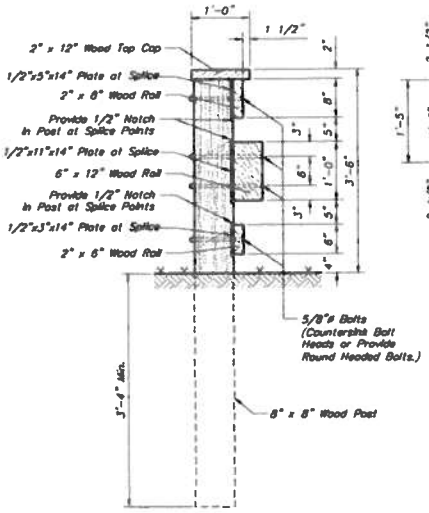
WOOD RAILING
The dimensions/ callouts of wood railing posts shall be the true out to out dimensions used for fabrication. The contractor shall not supply members measuring less than what is shown in the plans, i.e. nominal. Horizontal wood railing may be nominal sizes. All wood for posts and 6"x12" traffic railing components shall be pressure treated, dense select structural southern pine, Fb = 1750 Psi. Wood for secondary railings shall be #1 grade Southern Pine, Fb = 1500 psi.

MATERIALS

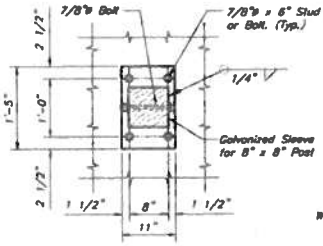
All Wood for railing, posts, and cap shall be pressure treated and shall conform to ODOT specification 710.14 and 712.05. All Anchor Bolts, Nuts and Studs, shall conform to the physical properties of ASTM-A325 except that the elongation shall be 10%. The chemical properties are waived.

GALVANIZING
All Hardware and Accessories shall be galvanized in accordance with ASTM-A123 or ASTM-153.

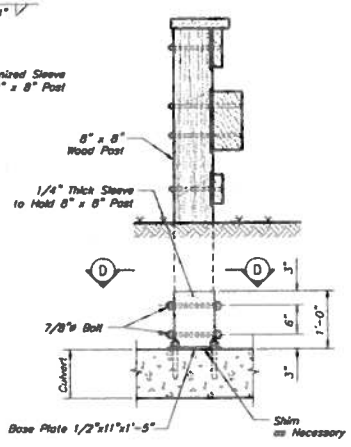
ANCHORING
Holes and grouting shall comply with CMS 510. Partial-depth anchoring is preferred to through-bolting. For partial depth anchoring, use non-shrink, non-metallic grout as specified in CMS 705.20.



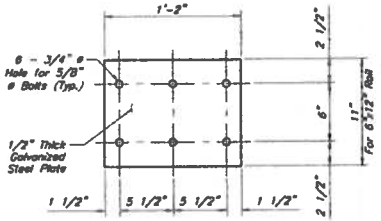
GUARDRAIL POST DETAIL



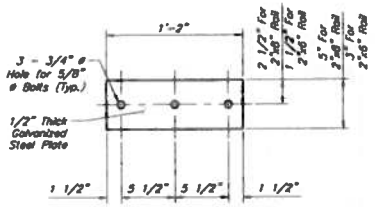
SECTION D-D



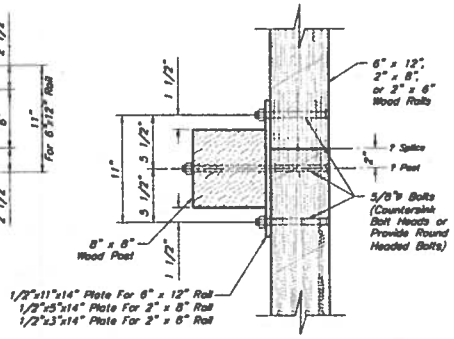
POST FOR GUARDRAIL ACROSS CULVERT



TRAFFIC RAIL SPLICE PLATE DETAIL



SECONDARY RAIL SPLICE PLATE DETAIL



PLAN VIEW OF RAIL POST SPLICE DETAIL

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

MARK	DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
CELTIC CROSSING
STEEL-BACKED TIMBER GUARDRAIL DETAILS

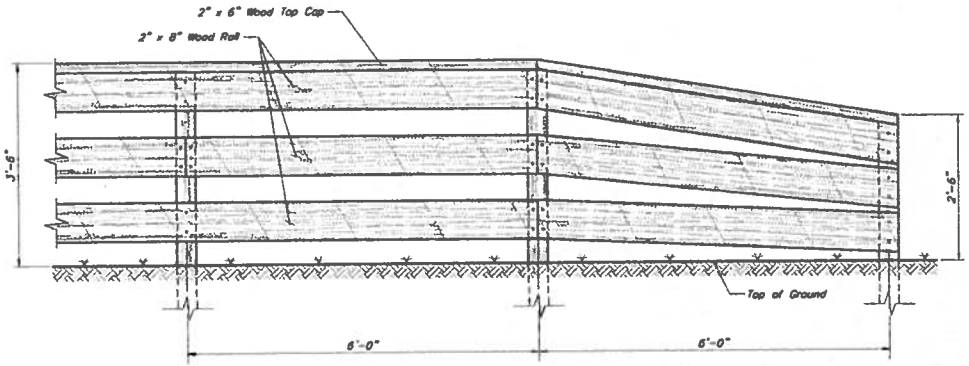
EMH&T

DATE
AUGUST 14, 2013

SCALE
As Noted

JOB NO
2013-1137

SHEET
20/21



DETAIL AT PEDESTRIAN RAIL END FLARE

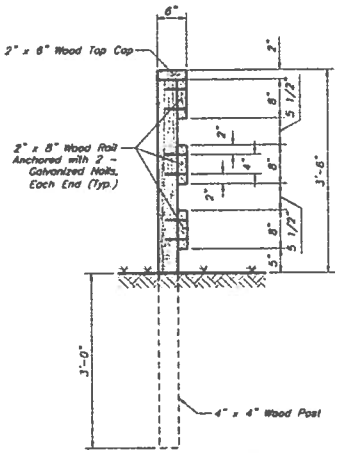
See Landscape Plan for Fence and Guardrail Color.

RAILING NOTES

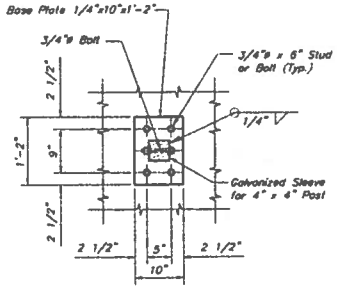
MATERIALS
All Wood for railing, posts, and cap shall be pressure treated and shall conform to ODOT specification 710.14 and 712.06. All Anchor Bolts, Nuts and Studs, shall conform to the physical properties of ASTM-A325 except that the elongation shall be 10%. The chemical properties are waived.

GALVANIZING
All Hardware and Accessories shall be galvanized in accordance with ASTM-A123 or ASTM-153.

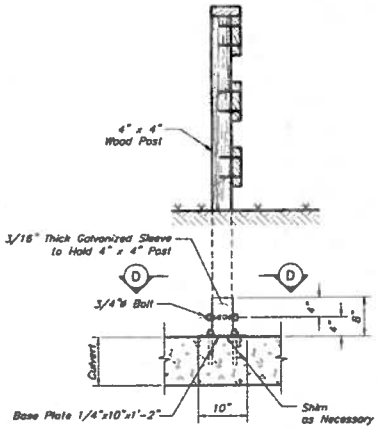
ANCHORING
Holes and grouting shall comply with CMS 510. Partial-depth anchoring is preferred to through-bolting. For partial depth anchoring, use non-shrink, non-metallic grout as specified in CMS 705.20.



PEDESTRIAN RAIL POST DETAIL



SECTION D-D



POST FOR PEDESTRIAN RAIL ACROSS CULVERT

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

REVISIONS

DATE	DESCRIPTION

CITY OF DUBLIN, UNION COUNTY, OHIO
PUBLIC STREET, STORM AND WATER IMPROVEMENTS
CELTIC CROSSING
TIMBER PEDESTRIAN RAIL

EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 866.775.5364
www.emht.com

DATE
AUGUST 14, 2013

SCALE
As Noted

JOB NO.
2013-113*

SHEET
21/21

CITY OF DUBLIN, OHIO
PUBLIC SANITARY SEWER IMPROVEMENT
FOR
CELTIC CROSSING
2013

SHEET INDEX

Title Sheet, Index and Tributary Boundary Map 1
General Notes And Quantities 2
Plan And Profile 3–7

OHIO Utilities Protection SERVICE
Call Before You Dig
800-362-2764 or 8-1-1
www.oupc.org

STANDARD CONSTRUCTION DRAWINGS

The Standard Drawings listed on these plans shall be considered a part thereof

City of Dublin		City of Columbus		
SA-01	RD-06	AA-S102	AA-S119	AA-S161
SA-02		AA-S104	AA-S149	L-8324
SA-03		AA-S108	AA-S150	
		AA-S107	AA-S151	
		AA-S117	AA-S180	

BENCH MARKS
(NAVD 1988)

Master/Source BM — Aluminum disk in the northeast corner of Hyland-Croy Road bridge over North Fork Indian Run in Union County, 107 feet south of the centerline of Mitchell-Dewitt Road, 20 feet west of the centerline of Hyland Croy Road.

Elev = 929.684

BM#1 — Chiseled square on top of the north end of a 66 inch concrete storm pipe located on the north side of Mitchell-Dewitt Road, 750 feet west of Hyland-Croy intersection.

N=778040.8150
E=1777931.7440 — Elev = 928.34

BM#4 — Chiseled "X" on the south bolt of the third fire hydrant north of the intersection of Hyland-Croy Road and Mitchell-Dewitt Road on the east side of Hyland-Croy Road.

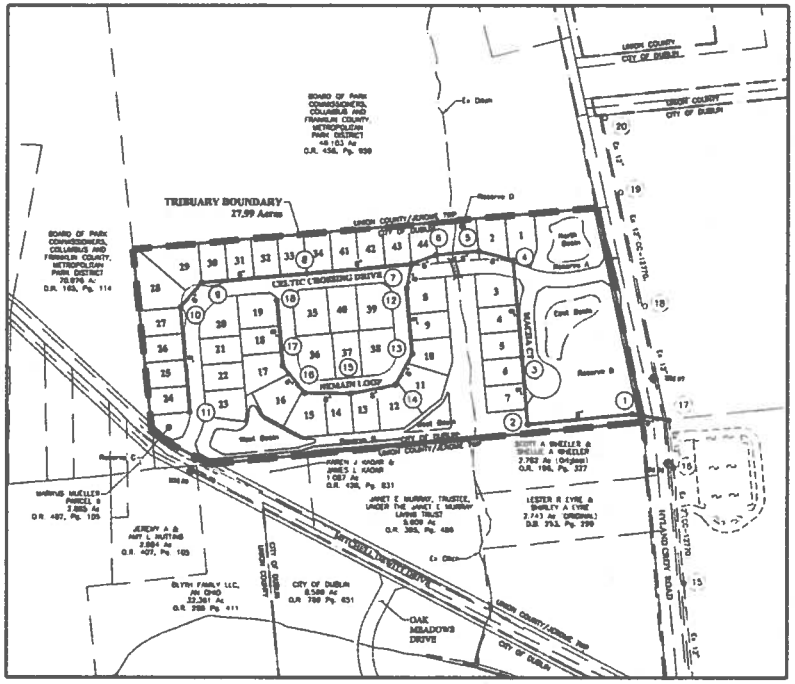
N=778348.3475 E=1778537.5330 — Elev = 932.34

BM#6 — Pony railroad spike in the north side of a wooden utility pole located on the south side of Mitchell-Dewitt Road, 30 feet northeast of residence 7787 Mitchell-Dewitt Road.

Elev = 937.28

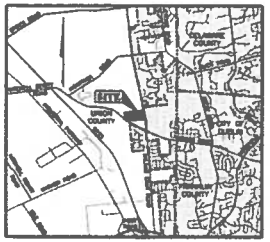
BM#7 — Chiseled "X" on the west bolt of a fire hydrant located 1500 feet north of the intersection of Hyland-Croy Road and Mitchell-Dewitt Road, 40 feet east of the centerline of Hyland-Croy Road.

Elev = 934.54



INDEX/TRIBUTARY BOUNDARY MAP
Scale: 1" = 200'

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION
PLAN SET DATE AUGUST 14, 2013



LOCATION MAP
Not To Scale

GRAPHIC SCALE
1 inch = 200 feet

DEVELOPER/OWNER
Dominion Homes, Inc.
Steve Pech
PO Box 4900
Dublin, Ohio 43016-3555
Tel: (614) 764-9981
Fax: (614) 764-2207

PREPARED BY:
EMHT

REGISTERED ENGINEER — DATE

CITY OF DUBLIN:
THE SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

CITY ENGINEER, CITY OF DUBLIN, OHIO — DATE

CITY OF COLUMBUS:
APPROVAL ON THE PART OF THE CITY OF COLUMBUS IS GIVEN PURSUANT TO THE PROVISIONS OF THE SEWER SERVICE AGREEMENT WITH THE CITY OF DUBLIN, OHIO APRIL 13, 1993 AND ALL SUBSEQUENT AMENDMENTS THEREOF

ADMINISTRATOR, DIVISION OF SEWERAGE & DRAINAGE
CITY OF COLUMBUS, OHIO — DATE

DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES
CITY OF COLUMBUS, OHIO — DATE

NOTE:
SANITARY SEWER MEETS OR EXCEEDS CITY OF COLUMBUS DESIGN STANDARDS (INCLUDING PER CAPITA FLOW, PEAKING FACTOR AND I/I ALLOWANCE) AND MATERIAL SPECIFICATIONS.

DUBLIN CC-XXXXX — PM - 647

REVISIONS
MARK | DATE | DESCRIPTION

CITY OR TOWNSHIP (COUNTY), STATE
PUBLIC SANITARY SEWER IMPROVEMENT
CELTIC CROSSING
TITLE SHEET, INDEX AND TRIBUTARY BOUNDARY MAP

EMHT

DATE: AUGUST 14, 2013
SCALE: As Noted
JOB NO.: 30121137
SHEET: 1/7

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 construction 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 bench marks, 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 water courses 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 638. Item 911 of the Standard Specifications may 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
    5200 Sheer Ridge 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 or 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 638 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 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 as directed by the Division of Parks & Recreation, City of Dublin, Ohio.
27. Traffic control and other regulatory signs shall be Type 3 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 3, 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:

Columbia Gas of Ohio Attn. Devin Richards 200 Civic Center Dr., 4th Floor Columbus, Ohio 43215 1-800-440-6111	City of Columbus Division of Power 910 Dublin Road, 2nd Floor Columbus, Ohio 43215 (614) 645-7627
Ohio Edison Gary Smith 1040 South Prospect Street Marion, Ohio 43302 (740)-382-7104	
City of Dublin Division of Engineering Ken Richardson, P.E. 5200 Sheer Ridge Road Dublin, Ohio 43016 (614) 410-4631	Verizon 839 Mueller / Randy Brooks 350 Leader Street (740) 383-0327
Time Warner Cable Kevin Rich 1268 Dublin Road Columbus, Ohio 43215 (614) 481-5283	Frontier Communications Chris Avery Network Engineering 1300 Columbus Sandusky Rd Marion, Ohio 43302 (740) 383-0551

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 proper provisions for traffic control are not being provided by the Contractor, 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

Please reference Erosion and Sediment Control Plan contained in Wellington Reserve Street, Storm, and Water Plan.

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

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 Ten States – Recommended Standards for Sewage Works.
3. The minimum requirements for sanitary sewer pipes with diameters 15 inch 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 26 feet. Instead Ductile Iron, Cl. 50 (AWWA 151) shall be used with prior written approval by the City Engineer. 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 inch shall be reinforced concrete pipe ASTM C76 with Class according to the approved construction drawings.
5. All in-line eye and tee connections in concrete sewers, 15 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 638, 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.
8. All PVC sewer pipes shall be deflection tested no less than 30 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 constructed of ductile iron pipe material.
16. Service risers shall be installed where the depth from eyes to proposed ground elevation exceeds 10 feet. Tops of risers shall be no less than 3 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 eye opening shall be installed.
18. The Contractor shall furnish and place, as directed, approved eye poles made of 2 inches x 2 inches lumber at all eye locations, ends of extended services, or at the end of each riser where risers are required. Eye 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 II 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 NOTES 1-17 DELETED

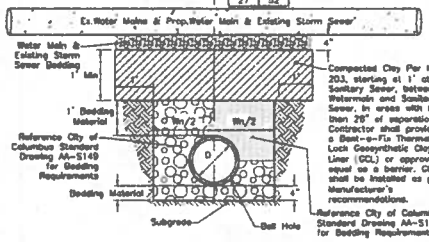
STORM SEWER NOTES 1-7 DELETED

MAIL DELIVERY

1. The Contractor shall be responsible to ensure that U.S. 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 NOTES 1-3 DELETED

Flexible Sewer Pipe * inches				Rigid Sewer Pipe * inches							
D **	W_1 **	D **	W_1 **	D **	W_1 **	D **	W_1 **	D **	W_1 **	D **	W_1 **
				6	24	30	57	72	116
6	30	24	48	8	27	33	61	78	123
8	30	27	52	10	30	36	64	84	130
10	30	30	58	12	32	42	71	90	136
12	32	36	64	15	36	48	76	96	143
15	36	42	72	18	40	54	87	102	151
18	40	48	80	21	44	60	96	108	160
21	44			24	48	66	105		
				27	52				



ANTI INFILTRATION AND INFLOW BARRIER DETAIL

Not to Scale

1.) This detail is required at all sanitary sewer and water main crossings & sanitary sewer and existing storm sewer crossings. This detail is not being used to mitigate crossings where there is less than 18" of vertical distance from outside to outside of pipes. See Profile for total length of barrier measured along Sanitary mainlines.

2.) For sanitary sewer services the 1/1 detail will apply to 5' length (10' Total Length) on either side of the intersection of sanitary sewer service and water main measured along the sanitary sewer service and centered on the crossing. See profile for Sanitary Mainline utility crossing's 1/1 Barrier lengths.

ESTIMATE OF QUANTITIES

ITEM	QUANTITES	UNIT	DESCRIPTION
			SANITARY
604	18	Each	Manhole, Type "C" (AA-5102)
901	3,390	LF	Sanitary 8" Pipe, Type 1 Bedding
908	150	LF	Tunnel for (Directional Bore) 8" PVC Sanitary Sewer Pipe, Including Shaft
914	245	LF	6" Diameter Riser Pipe
915	44	LF	8"x6" Wye Fittings
918	755	LF	6" Diameter Sanitary House Connections
Calculated by: SMH		Date: 6/20/13	Checked: BJ Date: 6/20/13

* The length of the riser is the actual length of riser laid at 45°

** Quantity listed represents actual length of service required, not trench length.

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

DATE	DESCRIPTION

EMH&T
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

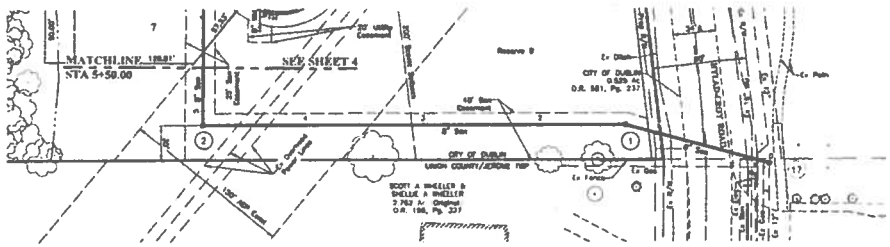
(TTY) OH TOWNSHIP (COUNTY) STATE
PUBLIC SANITARY SEWER IMPROVEMENT
FOR
CELTIC CROSSING
GENERAL NOTES AND QUANTITIES

DATE
AUGUST 14, 2013

SCALE
As Noted

JOB NO.
2012 1137

SHEET
2/7



GRAPHIC SCALE

1 inch = 50 feet

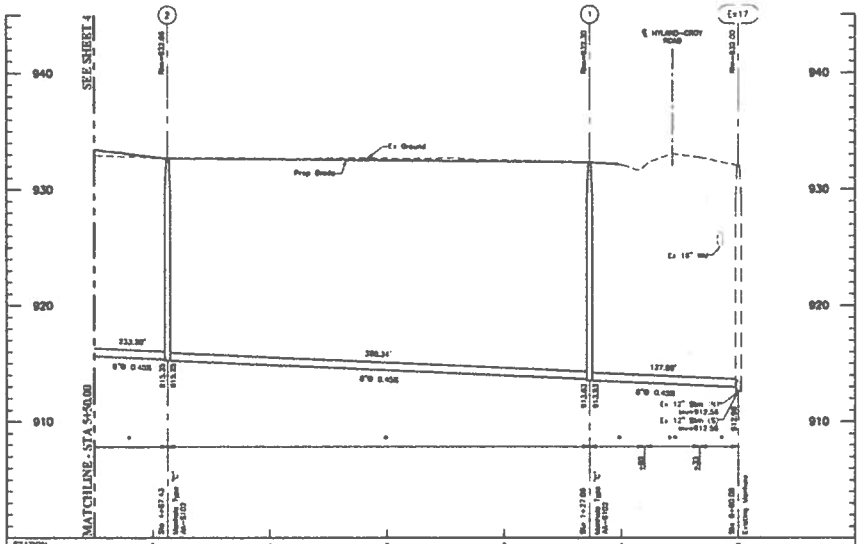
LEGEND

- Proposed Sanitary Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Proposed Watermain
- Proposed Storm Sewer
- Existing Storm Sewer

NOTE: Services to be constructed to not conflict with proposed storm sewer and water main. The Contractor is responsible to provide a minimum 2.5' clearance between the 6" sanitary sewer services and all utility crossings while maintaining a minimum 2.08% grade for the sanitary services. Construct the typical Anti-Infiltration & Inflow Barrier for all crossings of Sanitary Sewers and Water Mains: See detail shown on Sheet 2.

NOTES:

- * Compacted Backfill, Item 911
- ** Compacted Granular Backfill, Item 912
- # See Anti Infiltration and Inflow Barrier Details Sheet 2.
- ## See Public Street, Storm and Water Improvement Plan for Barrier Protection where Storm Sewer and Sanitary Sewer line are crossing.



STATION	5	4	3	2	1	0
SURFACE	932.74	932.63	932.62	932.47	932.09	
INVERT	913.41	914.86	914.41	913.86	913.41	912.86
CUT	17.33	17.77	18.23	18.53	18.68	

STRUCTURE COORDINATES

STRUCTURE #	NORTHING - PLAN	EASTING - PLAN	NORTHING - AS BUILT	EASTING - AS BUILT
1	778715.8418	1778413.9077		
2	778679.8972	1778057.3716		
3	778612.1337	1778036.3308		
4	778243.9375	1778008.0270		
5	778274.9431	1777888.1498		
6	778091.6664	1777742.3330		
7	778231.2362	1777658.8484		
8	778198.8007	1777300.3308		
9	778163.9651	1776941.8131		
10	778089.0082	1776888.8679		
11	778723.4885	1776801.4635		
12	778145.5158	1777943.5736		
13	778821.8308	1777862.9356		
14	778813.6088	1777803.0779		
15	778780.6067	1777451.5264		
16	778767.5324	1777294.4480		
17	[illegible]	1777218.3884		
18	778105.0467	1777198.0337		
Ex17	778866.1480	1778641.2830	778866.1480	1778641.2830

SANITARY SEWER TABLE

LINE	BEARING	LENGTH	SIZE
1-2	S84°15'30"W	300.34'	6"
2-3	N03°12'00"W	233.20'	6"
3-4	N03°12'00"W	333.18'	6"
4-5	N75°15'47"W	121.88'	6"
5-6	S84°47'30"W	148.42'	6"
6-7	S85°36'18"W	98.88'	6"
7-8	S84°47'30"W	360.00'	6"
7-12	S10°05'00"W	87.25'	6"
8-9	S84°47'30"W	360.00'	6"
9-10	S42°26'11"W	111.98'	6"
10-11	S05°12'00"E	360.00'	6"
12-13	S05°12'00"E	224.81'	6"
13-14	S23°37'17"W	120.78'	6"
14-15	S78°32'21"W	156.49'	6"
15-16	N89°17'31"W	157.08'	6"
16-17	N38°01'26"W	120.78'	6"
17-18	N03°12'00"W	224.81	6"
Ex17-1	N87°34'36"W	127.08'	6"

SANITARY SERVICE SCHEDULE

MH #	LOT #	WYE STATION	LENGTH OF SERVICE	LENGTH OF RISER	ELEVATION AT END OF SERVICE (EOS)	PERMIT #
2	7	5+81.84	3'	10'	926.6	
	6	6+68.12	3'	10'	927.0	
3	5	7+76.12	3'	10'	927.2	
	4	8+46.12	3'	10'	928.1	
	3	9+72.14	3'	11'	929.2	
	1	10+53.81	42'	11'	929.5	
4	2	11+03.27	17'	11'	929.5	
6	44	13+85.63	3'	10'	929.5	
7	43	14+98.97	3'	8'	929.0	
	39	15+25.97	55'	8'	928.9	
	42	15+35.97	3'	8'	929.0	
	41	16+25.97	3'	8'	929.5	
	40	16+71.11	55'	8'	929.5	
	34	17+38.97	3'	7'	929.0	
8	35	17+80.97	55'	7'	928.9	
	33	18+28.97	3'	6'	928.8	
	32	18+93.97	3'	6'	929.0	
	31	20+08.97	3'	6'	929.0	
	30	21+12.72	3'	3'	929.0	
9	29	21+77.02	23'	6'	930.5	
	20	22+32.82	81'	5'	928.9	
	28	22+38.43	14'	6'	930.5	
10	27	23+00.96	3'	6'	928.5	
	26	23+67.96	3'	3'	928.5	
	21	23+94.06	55'	3'	928.3	
	25	24+80.96	3'	3'	928.5	
	22	25+02.81	55'	2'	928.2	
	24	25+70.96	3'	2'	928.0	
	23	26+94.06	55'	2'	928.10	
12	8	1+08.88	3'	7'	928.5	
	9	2+15.88	3'	6'	927.1	
	10	2+75.88	3'	6'	927.5	
13	11	4+05.88	3'	3'	928.0	
14	12	4+41.88	3'	4'	928.6	
	38	4+47.74	50'	4'	927.0	
	13	5+20.23	3'	4'	927.0	
15	37	5+98.92	54'	4'	927.2	
	14	6+11.14	3'	4'	927.5	
	36	7+32.07	50'	3'	927.6	
	15	7+40.24	3'	3'	927.5	
16	16	7+72.81	3'	3'	927.5	
17	17	9+06.01	3'	3'	928.0	
	18	9+66.01	3'	3'	928.5	
	19	10+72.98	3'	2'	929.4	

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

MARK	DATE	DESCRIPTION

REVISIONS

CITY OF TOWNSHIP (COUNTY), STATE
PUBLIC SANITARY SEWER IMPROVEMENT
FOR
CELTIC CROSSING
PLAN AND PROFILE

EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
COLUMBUS

DATE
AUGUST 14, 2013

SCALE
Horiz: 1" = 50'
Vert: 1" = 5'

JOB NO.
20121137

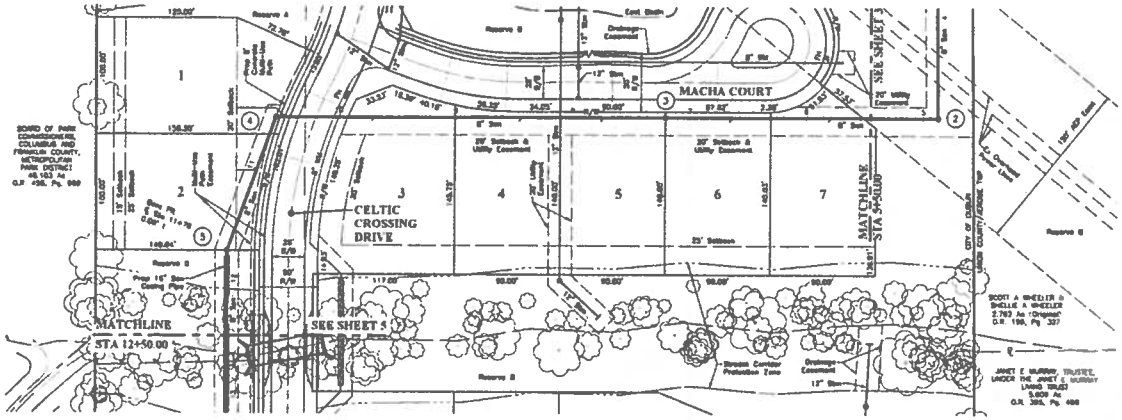
SHEET
3/7

GRAPHIC SCALE

1 Inch = 50 feet

LEGEND

- Proposed Sanitary Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Proposed Watermain
- Proposed Storm Sewer
- Existing Storm Sewer


MACHA COURT
CELTIC CROSSING DRIVE
MATCHLINE STA 12+50.00
MATCHLINE STA 5+50.00
SEE SHEET 5
SEE SHEET 3
BOARD OF PARK COMMISSIONERS, COLUMBUS AND FRANKLIN COUNTY, METROPOLITAN PARK DISTRICT
CITY OF DUBLIN
LINDA COUNTY/JEROME TWP
Reserve A
Reserve B
Drainage Easement
Prop 15" Storm Crossing Pipe
Prop 6" Sanitary Lateral
Prop 1" Service
Prop 12" Storm
Prop 6" Sanitary
Existing Contour
Prop Contour
Prop Grade
Existing Ground
Prop 12" Storm
Sta=924.61
Sta=933.37
Sta=936.30
Sta=939.51
Sta=933.13
Sta=933.03
Sta=934.33
Sta=939.70
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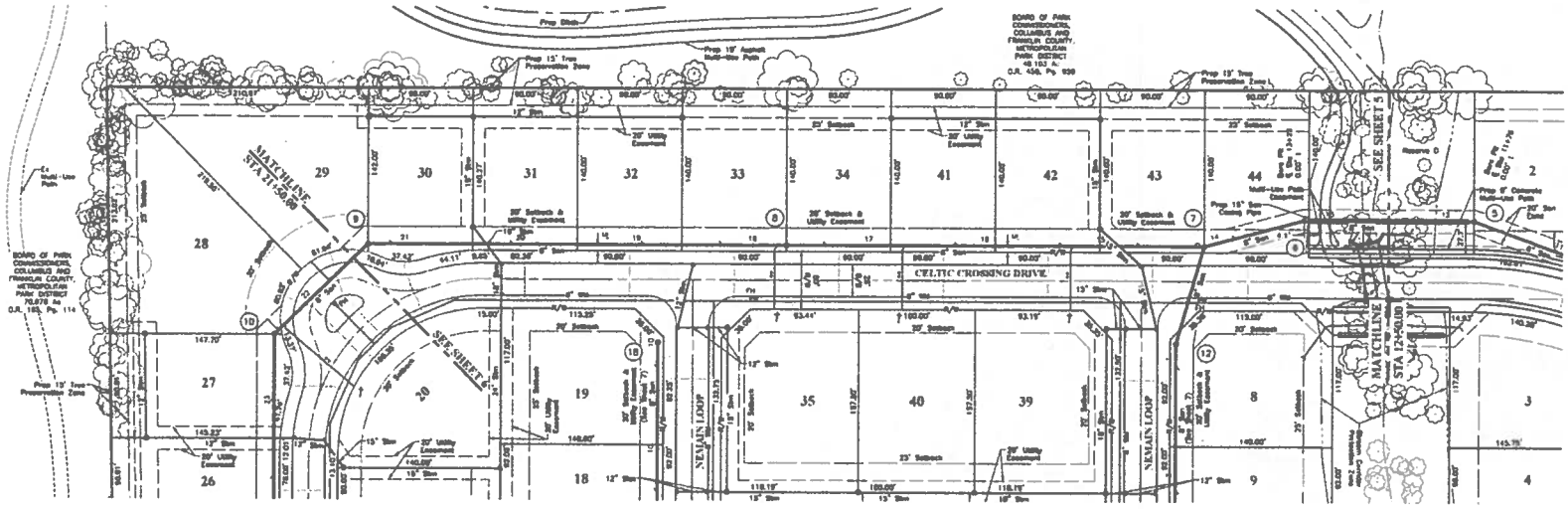
Sta=933.30
Sta=933.30



GRAPHIC SCALE

1 inch = 50 feet

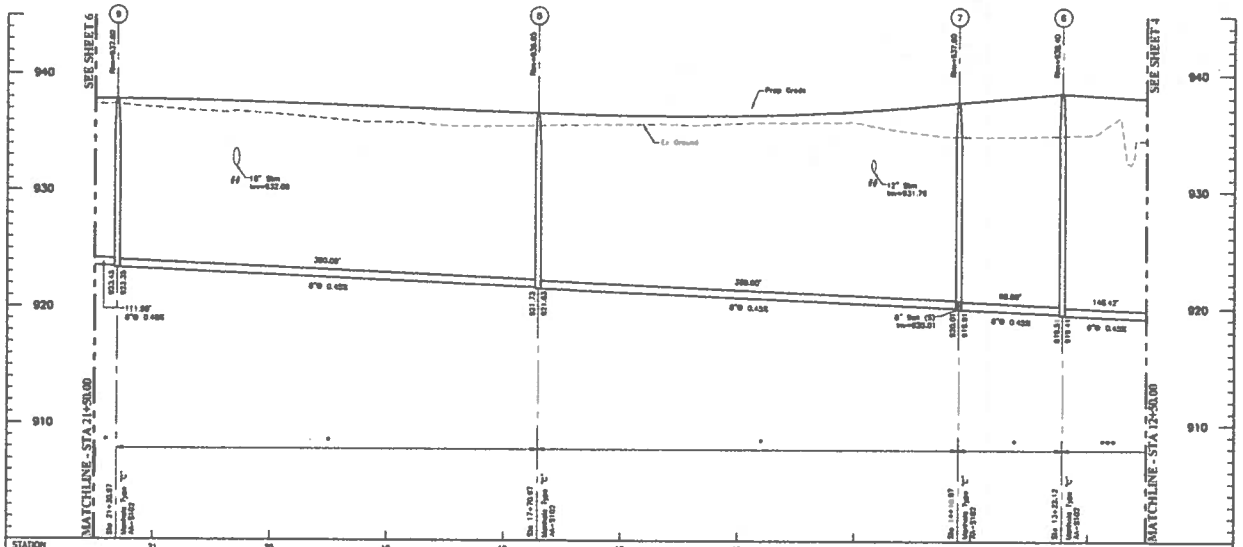
LEGEND

- Proposed Sanitary Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Proposed Watermain
- Proposed Storm Sewer
- Existing Storm Sewer

NOTE: Services to be constructed to not conflict with proposed storm sewer and water main. The Contractor is responsible to provide a minimum 2.5' clearance between the 6" sanitary sewer services and all utility crossings while maintaining a minimum 2.08% grade for the sanitary services. Construct the typical Anti-Infiltration & Inflow Barrier for all crossings of Sanitary Sewers and Water Mains; See detail shown on Sheet 2.

NOTES:

- * Compacted Backfill, Item 911
- ** Compacted Granular Backfill, Item 912
- *** Directional Bore
- ‖ See Anti Infiltration and Inflow Barrier Details Sheet 2.
- ‖‖ See Public Street, Storm and Water Improvement Plan for Barrier Protection where Storm Sewer and Sanitary Sewer line are crossing.



STATION	21	20	19	18	17	16	15	14	13
SURFACE	937.19	936.57	935.69	933.53	932.69	930.82	929.91	924.99	924.57
INVERT	923.31	922.79	922.31	921.69	921.31	920.69	920.41	919.69	919.31
CUT	13.88	13.81	13.34	13.87	14.37	14.98	15.50	14.83	15.50

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 14, 2013

MARK	DATE	DESCRIPTION

(CITY OR TOWNSHIP) (COUNTY) STATE
PUBLIC SANITARY SEWER IMPROVEMENT
FOR
CELTIC CROSSING
PLAN AND PROFILE

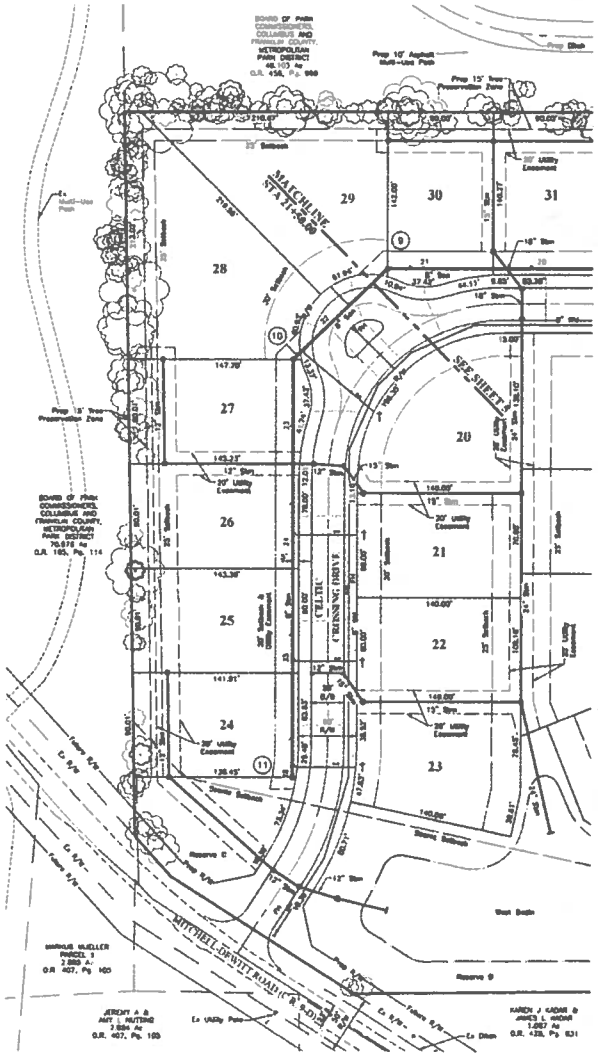
EMHT

DATE
AUGUST 14, 2013

SCALE
Horiz 1" = 50'
Vert 1" = 5'

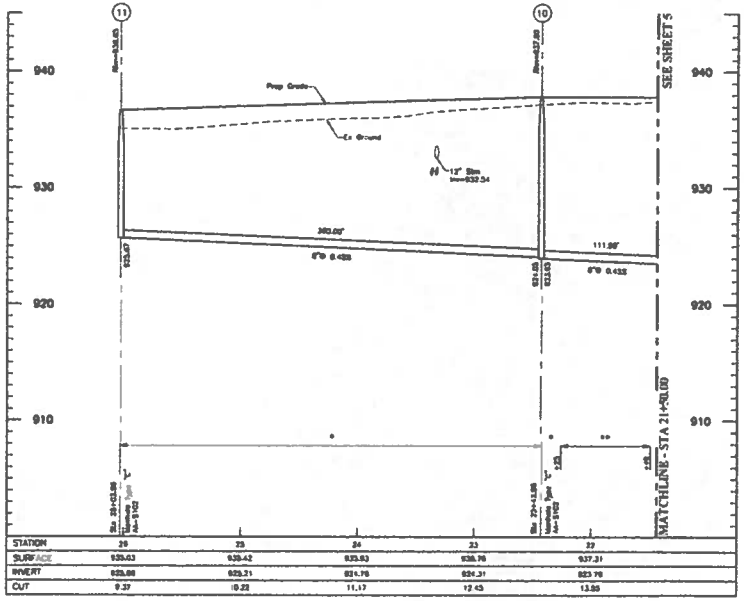
JOB No.
30121137

SHEET
5/7



GRAPHIC SCALE

1 inch = 50 feet



STATION	26	25	24	23	22
SURFACE	939.03	939.42	939.93	938.76	937.31
INVERT	929.88	929.21	924.76	924.31	923.76
CUT	9.37	10.22	11.17	12.45	13.55

NOTE:

Services to be constructed to not conflict with proposed storm sewer and water main. The Contractor is responsible to provide a minimum 2.5' clearance between the 6" sanitary sewer services and all utility crossings while maintaining a minimum 2.08% grade for the sanitary services. Construct the typical Anti-Infiltration & Inflow Barrier for all crossings of Sanitary Sewers and Water Mains; See detail shown on Sheet 2.

NOTES:

- * Compacted Backfill, Item 911
- ** Compacted Granular Backfill, Item 912
- / See Anti Infiltration and Inflow Barrier Details Sheet 2.
- // See Public Street, Storm and Water Improvement Plan for Barrier Protection where Storm Sewer and Sanitary Sewer line are crossing.

LEGEND

- Proposed Sanitary Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Proposed Watermain
- Proposed Storm Sewer
- Existing Storm Sewer

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REVISIONS

(CITY OR TOWNSHIP, COUNTY, STATE
PUBLIC SANITARY SEWER IMPROVEMENT
FOR
CELTIC CROSSING
PLAN AND PROFILE

EMH&T
Engineers, Environmental Scientists, & Surveyors
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
www.emht.com

DATE
AUGUST 14, 2013

SCALE
Horiz: 1" = 50'
Vert: 1" = 5'

JOB NO.
30121137

SHEET
6/7

† NOTE:
Services to be constructed to not conflict with proposed storm sewer and water main. The Contractor is responsible to provide a minimum 2.5' clearance between the 6" sanitary sewer services and all utility crossings while maintaining a minimum 2.083% grade for the sanitary services. Construct the typical Anti-Infiltration & Inflow Barrier for all crossings of Sanitary Sewers and Water Mains; See detail shown on Sheet 2.

NOTES:

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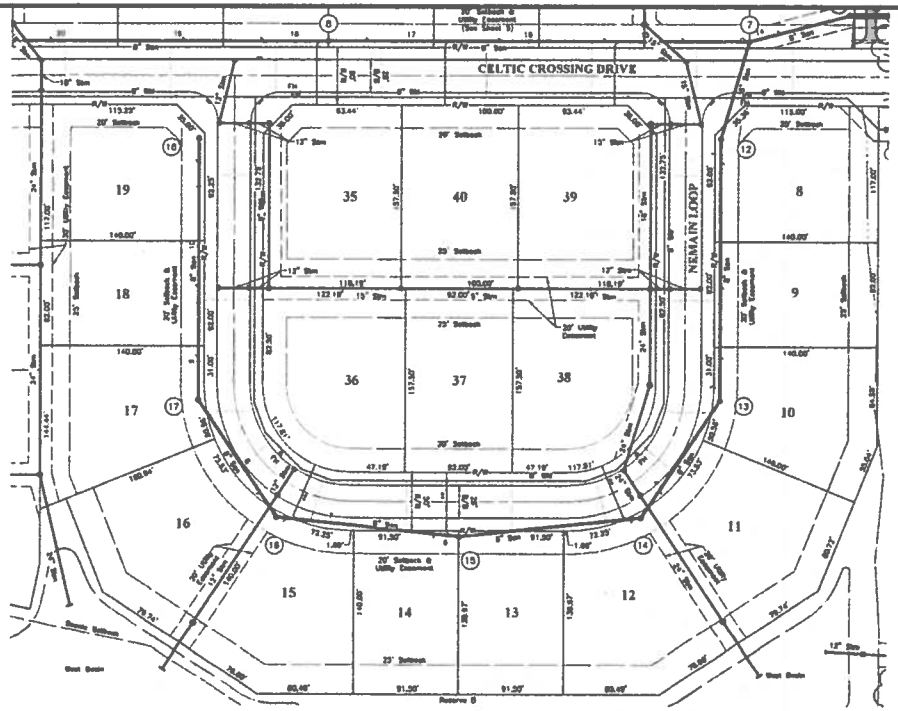
- ** Compacted Granular Backfill, Item 912
- ∂ See Anti Infiltration and Inflow Barrier Details Sheet 2.
- ∂∂ See Public Street, Storm and Water Improvement Plan for Barrier Protection where Storm Sewer and Sanitary Sewer line are crossing.

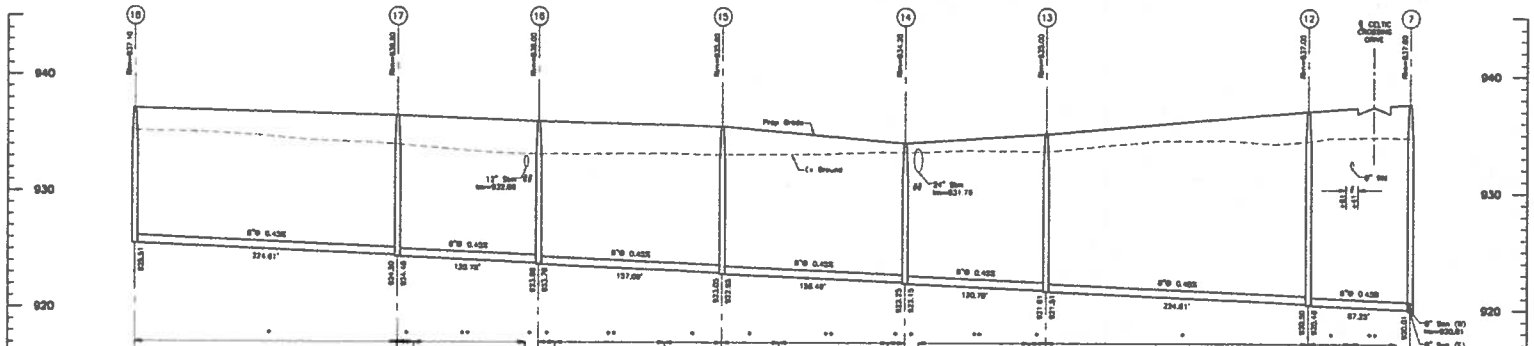


GRAPHIC SCALE

1 inch = 50 feet

LEGEND

- Proposed Sanitary Sewer
- Existing Sanitary Sewer
- Existing Watermain
- Proposed Watermain
- Proposed Storm Sewer
- Existing Storm Sewer



STATION	10	9	8	7	6	5	4	3	2	1	0
SURFACE	934.89	934.74	933.48	933.23	933.35	933.26	933.51	933.82	934.49	934.33	934.72
INVERT	925.18	924.85	924.10	923.39	923.10	922.39	922.00	921.48	921.81	920.96	919.81
CUT	9.70	9.89	9.38	9.84	10.10	10.71	11.50	12.17	13.44	13.78	14.81

PRELIMINARY
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PLANSET DATE
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REVISIONS

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CITY OF TOWNSHIP, COUNTY, STATE
PUBLIC SANITARY SEWER IMPROVEMENT
FOR
CELTIC CROSSING
PLAN AND PROFILE

EMHT

DATE
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JOB NO.
2012-1137

SHEET
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