PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A MULTI-USE PATH ALONG THE WEST SIDE OF DUBLIN ROAD FROM RINGS ROAD TO WATERFORD DRIVE. CONSTRUCTION OF THE MULTI-USE PATH WILL INCLUDE PEDESTRIAN BRIDGES, CULVERT EXTENSIONS, DRIVE RECONSTRUCTION, AND THE RELOCATION OF STONE WALLS AND UTILITIES.

SPECIFICATIONS

CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (2012 EDITION) SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED.

CITY OF DUBLIN, OHIO

DUBLIN ROAD SOUTH MULTI-USE PATH

RINGS ROAD TO WATERFORD DRIVE

08-009.3-CIP

City of Dublin

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BENCHMARK (BASED ON NAVD 88)

BM "E"

FRANKLIN COUNTY ENGINEER BM R-3, BRASS PLUG ON THE CENTER OF THE WEST HEADWALL OF CULVERT "WAS-10-10.21", JUST NORTH OF RINGS ROAD, BEING 16 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 760484.58 E: 1796427.97 ELEV = 824.81

BM "F"

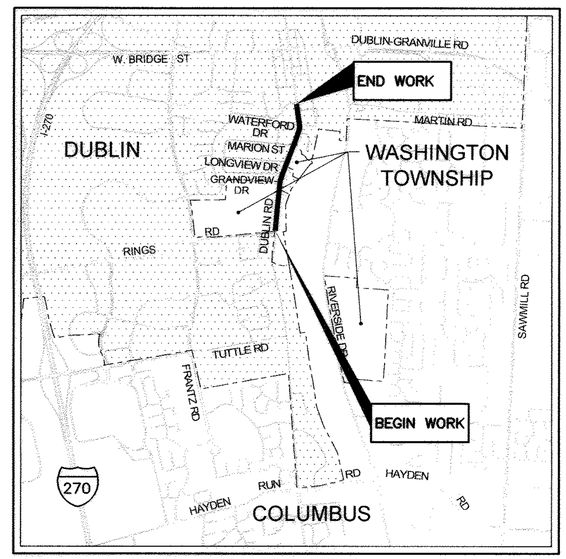
RAILROAD SPIKE IN THE EAST SIDE OF A POWER POLE, ON THE SOUTH SIDE OF GRANDVIEW DRIVE, BEING 32 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 761940.04 E: 1796600.84 ELEV = 808.60

BM "G"

CHISELED SQUARE ON THE SOUTHWEST WINGWALL OF A CULVERT ON THE NORTH SIDE OF MARION STREET, BEING 16 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 762753.43 E: 1796926.17 ELEV = 802.94

BM "H"

WEST BOLT OF FIRE HYDRANT ON THE SOUTH SIDE OF SHORT STREET, BEING 23 FEET RIGHT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 763601.79 E: 1797058.12 ELEV = 815.26



LOCATION MAP

0 2000 4000
SCALE IN FEET

PORTIONS TO BE IMPROVED

Ohio Utilities Protection Service
Call 811 before you dig

LEGEND

- PROPOSED STORM SEWER, MANHOLE, CATCH BASIN
- EX. R/W — EXISTING RIGHT-OF-WAY LINE
- PROP. R/W — PERMANENT EASEMENT
- EXISTING EASEMENT
- TEMPORARY EASEMENT
- WORK LIMITS
- RAILROAD SPIKE, IRON PIN, PK NAIL FOUND
- PROPERTY LINE
- 2+00 — BASELINE OR CENTERLINE
- EXISTING EDGE OF PAVEMENT
- W — EXISTING WATER MAIN, VALVE, AND HYDRANT
- SAN(FM) — EXISTING SANITARY SEWER, MANHOLE (FORCE MAIN)
- G — EXISTING GAS MAIN
- STM — EXISTING STORM SEWER, MANHOLE AND INLET
- T — EXISTING UNDERGROUND TELEPHONE AND PEDESTAL
- E — EXISTING UNDERGROUND ELECTRIC AND PEDESTAL
- FOC — EXISTING FIBER OPTIC CABLE
- UTILITY POLES
- SIGNAL POLES
- POLE GUY WIRE
- SIGN
- TREE, TREE TO BE REMOVED

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

CITY OF DUBLIN		ODOT		CITY OF COLUMBUS	
PD-02	ST-04	DM-1.1	1-18-13	SS-1100	11-1-14
		MH-1.2	1-18-13	1441	12-1-13
PD-03	ST-05			2328	6-1-13
		TC-41.20	10-18-13		
RD-01	WA-01	TC-42.20	10-18-13	AA-S125A	8-8-14
				AA-S125B	8-8-14
RD-06		MT-97.11	7-19-13	AA-S133A	8-8-14
		MT-101.60	7-19-13	AA-S133B	8-8-14
RD-07				AA-S151	7-9-12
		MGS-1.1	7-19-13		
RD-10				L-1001	5-14-13
				L-1003	5-14-13
SA-01		FEDERAL		L-1004	5-14-13
				L-6316A	5-14-13
ST-01		617-60		L-6637A	5-14-13
		617-63		L-7102B	5-16-13
ST-03				L-9901	5-16-13

PLAN PREPARED BY:

Stantec
Stantec Consulting Services Inc.
1500 Lake Shore Drive, Suite 100
Columbus, Ohio 43204
(614) 486-4383

Brian M Hagerty 12/15/14
REGISTERED ENGINEER DATE

John W. Espey 12/16/14
REGISTERED ENGINEER DATE

ENTIRE PLAN EXCEPT STRUCTURES

STATE OF OHIO BRIAN HAGERTY 61558 REGISTERED PROFESSIONAL ENGINEER
ENGINEER'S SEAL

STRUCTURES ONLY

STATE OF OHIO JOHN WELCH ESPEY E040220 REGISTERED PROFESSIONAL ENGINEER
ENGINEER'S SEAL

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.

APPROVED: Paul A. Hammersmith 12-17-2014
CITY ENGINEER, CITY OF DUBLIN, OHIO DATE

SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS. APPROVAL ON THE PART OF THE FRANKLIN COUNTY ENGINEER'S OFFICE IS GIVEN FOR WORK WITHIN THE COUNTY RIGHT-OF-WAY ONLY.

FRANKLIN COUNTY ENGINEER DATE

FRANKLIN COUNTY CHIEF DEPUTY ENGINEER DATE

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

TEH RC Weatherholt 1-29-15
ADMINISTRATOR, DIVISION OF WATER DATE

Guy J. Davis by [illegible] 1-29-2015
DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES DATE

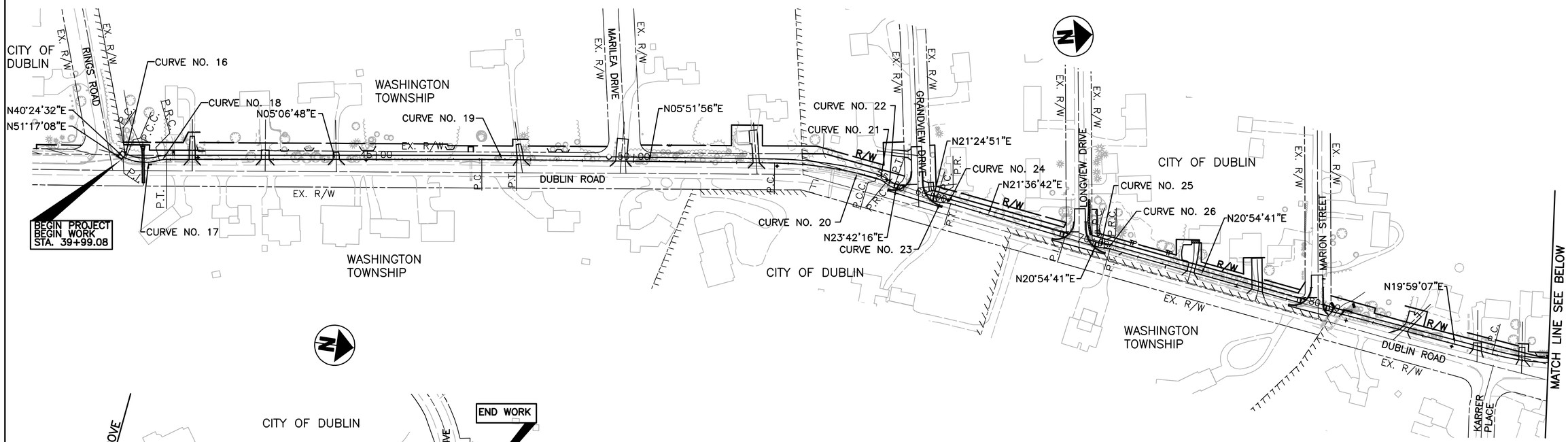
CIP NO. 08-009.3-CIP

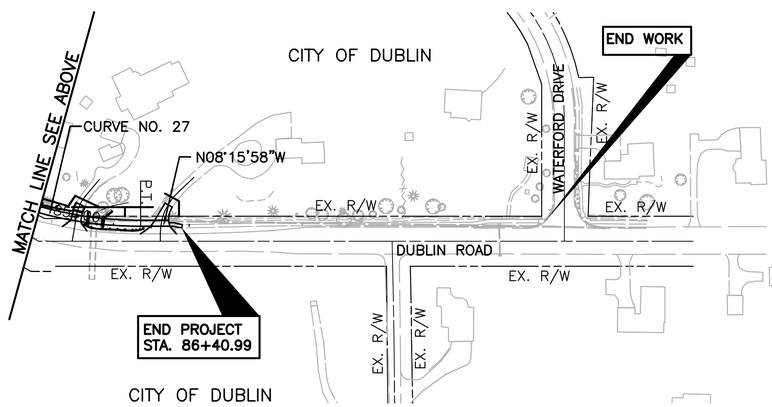
CONSTRUCTION PROJECT NO.

DUBLIN ROAD SOUTH MULTI-USE PATH

#11-093

MCDANEL, ARRON U:\173608736\design\plan_set\Rings to Waterford\173608736I01.dwg TITLE SHEET Last Saved: Oct 30, 2014 12:32 PM Plotted: Dec 15, 2014 1:19 PM





CURVE DATA
CURVE NO. 16
P.I. STA. 40+09.56
Δ = 12°24'07" LT.
Dc = 286°28'44"
R = 20.00'
T = 2.17'
L = 4.33'
E = 0.12'
P.C. STA. 40+07.39
P.C.C. STA. 40+11.72

CURVE DATA
CURVE NO. 17
P.I. STA. 40+46.52
Δ = 38°22'51" LT.
Dc = 57°17'45"
R = 100.00'
T = 34.81'
L = 66.99'
E = 5.88'
P.C.C. STA. 40+11.72
P.R.C. STA. 40+78.71

CURVE DATA
CURVE NO. 18
P.I. STA. 40+85.50
Δ = 15°29'14" RT.
Dc = 114°35'30"
R = 50.00'
T = 6.80'
L = 13.52'
E = 0.46'
P.R.C. STA. 40+78.71
P.T. STA. 40+92.22

CURVE DATA
CURVE NO. 19
P.I. STA. 47+38.79
Δ = 00°46'47" RT.
Dc = 01°08'45"
R = 5000.00'
T = 34.03'
L = 68.05'
E = 0.12'
P.C. STA. 47+04.76
P.T. STA. 47+72.81

CURVE DATA
CURVE NO. 20
P.I. STA. 53+74.22
Δ = 15°15'57" RT.
Dc = 07°38'22"
R = 750.00'
T = 100.51'
L = 199.83'
E = 6.70'
P.C. STA. 52+73.71
P.C.C. STA. 54+73.54

CURVE DATA
CURVE NO. 21
P.I. STA. 54+84.17
Δ = 24°00'15" RT.
Dc = 114°35'30"
R = 50.00'
T = 10.63'
L = 20.95'
E = 1.12'
P.C.C. STA. 54+73.54
P.R.C. STA. 54+94.49

CURVE DATA
CURVE NO. 22
P.I. STA. 55+03.95
Δ = 21°25'52" LT.
Dc = 114°35'30"
R = 50.00'
T = 9.46'
L = 18.70'
E = 0.89'
P.R.C. STA. 54+94.49
P.T. STA. 55+13.19

CURVE DATA
CURVE NO. 23
P.I. STA. 60+19.32
Δ = 16°31'49" LT.
Dc = 114°35'30"
R = 50.00'
T = 7.26'
L = 14.43'
E = 0.52'
P.C. STA. 60+12.06
P.R.C. STA. 60+26.48

CURVE DATA
CURVE NO. 24
P.I. STA. 60+33.83
Δ = 16°43'40" RT.
Dc = 114°35'30"
R = 50.00'
T = 7.35'
L = 14.60'
E = 0.54'
P.R.C. STA. 60+26.48
P.T. STA. 60+41.08

CURVE DATA
CURVE NO. 25
P.I. STA. 70+26.08
Δ = 13°41'53" LT.
Dc = 114°35'30"
R = 50.00'
T = 6.01'
L = 11.95'
E = 0.36'
P.C. STA. 70+20.08
P.R.C. STA. 70+32.03

CURVE DATA
CURVE NO. 26
P.I. STA. 70+38.04
Δ = 13°41'53" RT.
Dc = 114°35'30"
R = 50.00'
T = 6.01'
L = 11.95'
E = 0.36'
P.R.C. STA. 70+32.03
P.T. STA. 70+43.98

CURVE DATA
CURVE NO. 27
P.I. STA. 84+65.48
Δ = 28°15'05" LT.
Dc = 11°27'33"
R = 500.00'
T = 125.83'
L = 246.54'
E = 15.59'
P.C. STA. 83+39.65
P.T. STA. 85+86.19

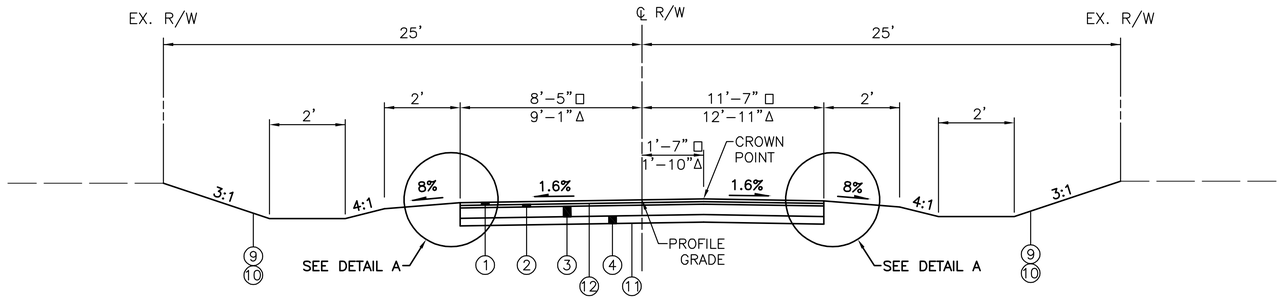
SCALE IN FEET 0 100 200

CALCULATED CNK
CHECKED TJS

SCHEMATIC PLAN

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, AARON u:\173608736\design\plan_set\rings to waterford\173608736sc01.dwg SCHEMATIC PLAN Last Saved: Jun 26, 2013 11:32 AM Plotted: May 29, 2015 4:33 PM

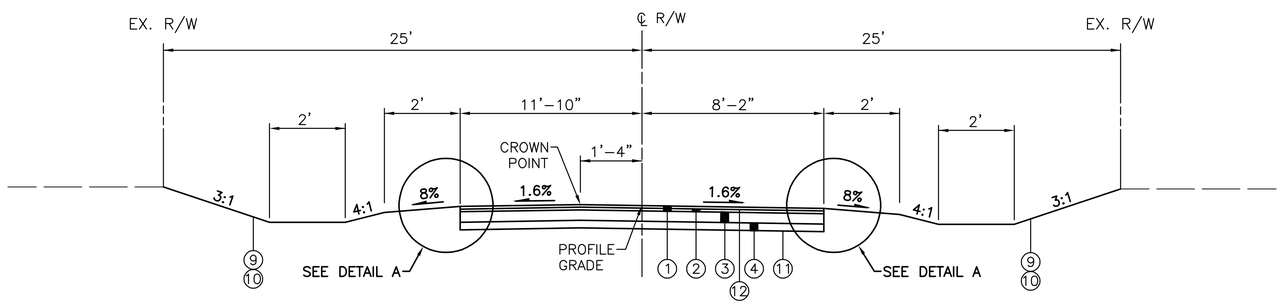


SIDE ROAD SECTION

N.T.S.

SECTION APPLIES:

GRANDVIEW DRIVE □
MARION STREET Δ

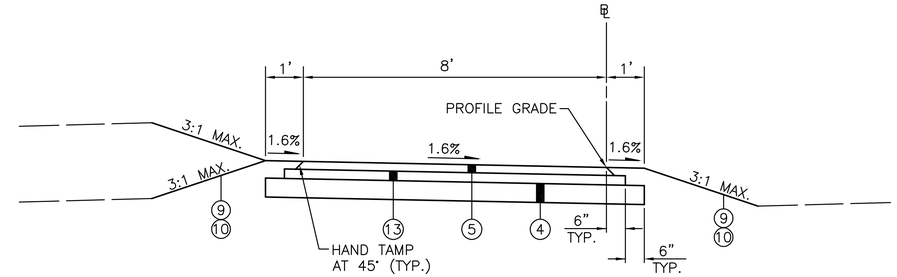


SIDE ROAD SECTION

N.T.S.

SECTION APPLIES:

LONGVIEW DRIVE

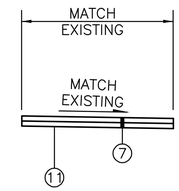


MULTI-USE PATH STANDARD SECTION

SECTION APPLIES:

STA. 40+06.09 TO STA. 40+20
* STA. 40+20 TO STA. 40+70
STA. 40+70 TO STA. 85+50
* STA. 85+50 TO STA. 86+24.74

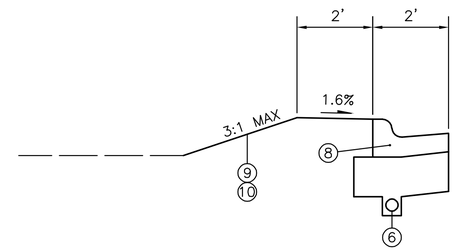
* SLOPE OPPOSITE DIRECTION THESE STATIONS



SIDEWALK SECTION

SECTION APPLIES:

STA. 41+06± LT.



GRANDVIEW DRIVE

STA. 101+31.49 TO STA. 60+24.34 LT.
STA. 101+31.49 TO STA. 101+64.53 RT.

LONGVIEW DRIVE

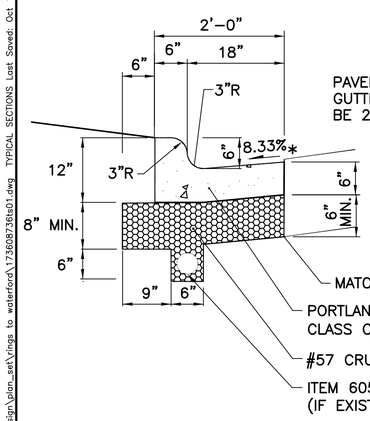
STA. 201+41.82 TO STA. 70+35.14 LT.
STA. 201+41.82 TO STA. 201+74.60 RT.

MARION STREET

STA. 302+38.94 TO STA. 302+72.64 LT.
STA. 302+38.94 TO STA. 302+93.19 RT.

DETAIL A

N.T.S.



PAVEMENT SHALL BE FLUSH WITH THE GUTTER, AND THE GUTTER SLOPE SHALL BE 2% AT CURB RAMP LOCATIONS.

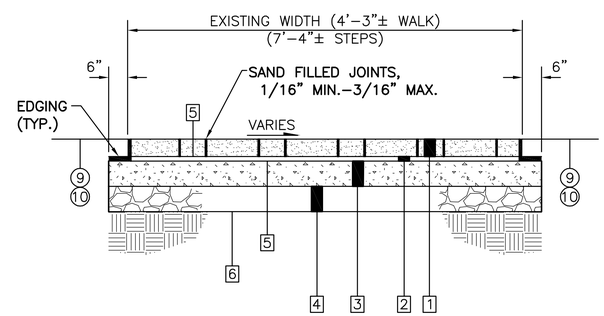
* 1/4" LIP

COMBINATION CURB & GUTTER DETAIL

N.T.S.

NO UNDERDRAIN TO BE PLACED AT:

SOUTH SIDE LONGVIEW DRIVE



1. SALVAGED EX. BRICK WALK
2. 3/4" – BITUMINOUS ASPHALT SETTING BED (PG64–22)
3. 4" – ITEM 452 COLUMBUS CLASS "C" CONCRETE BASE
4. 4" – ITEM 304 AGGREGATE BASE
5. NEOPRENE – MODIFIED ASPHALT ADHESIVE
6. ITEM 204 – SUBGRADE COMPACTION

ITEM SPECIAL - BRICK WALK, A.P.P.

N.T.S.

LEGEND

1. ITEM 448 – 1–1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64–22, MEDIUM TRAFFIC
2. ITEM 448 – 1–3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64–22, MEDIUM TRAFFIC
3. ITEM 301 – 6" ASPHALT CONCRETE BASE (TWO COURSES OF 3")
4. ITEM 304 – 6" AGGREGATE BASE
5. ITEM 448 – 1–1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, PG64–22, MEDIUM TRAFFIC
6. ITEM 605 – 4" SHALLOW PIPE UNDERDRAIN
7. ITEM 608 – 4" CONCRETE WALK, WITH #57 STONE, AS PER PLAN
8. ITEM 609 – COMBINATION CURB AND GUTTER, AS PER PLAN
9. ITEM 659 – SEEDING AND MULCHING, AS PER PLAN
10. ITEM 653 – 3" TOPSOIL FURNISHED AND PLACED, AS PER PLAN
11. ITEM 204 – SUBGRADE COMPACTION
12. ITEM 407 – NTSS–1HM TRACKLESS TACK COAT (0.04 GAL./SQ. YD.)
13. ITEM 301 – 3" ASPHALT CONCRETE BASE

CALCULATED CNK
CHECKED TJS

TYPICAL SECTIONS

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\173608736ts01.dwg TYPICAL SECTIONS Last Saved: Oct 17, 2014 4:37 PM Plotted: May 29, 2015 4:33 PM

REFERENCE POINTS – MULTI USE PATH			
DESCRIPTION	OFFSET	NORTHING	EASTING
P.O.T. 39+99.08	0'	760442.22	1796419.34
P.I. 40+06.09	0'	760446.60	1796413.87
P.C. 40+07.39	0'	760447.59	1796414.72
P.I. 40+09.56	0.12'	760449.25	1796416.13
P.C.C. 40+11.72	0'	760451.17	1796417.15
P.I. 40+46.52	5.88'	760481.90	1796433.49
P.R.C. 40+78.71	0'	760516.13	1796427.22
P.I. 40+85.50	0.46'	760522.82	1796426.00
P.T. 40+92.22	0'	760529.59	1796426.61
P.C. 47+04.76	0'	761139.69	1796481.20
P.I. 47+38.79	0.12'	761173.59	1796484.23
P.T. 47+72.81	0'	761207.43	1796487.73
P.C. 52+73.71	0'	761705.70	1796538.91
P.I. 53+74.22	6.70'	761805.69	1796549.19
P.C.C. 54+73.54	0'	761899.44	1796585.42
P.I. 54+84.17	1.12'	761909.36	1796589.25
P.R.C. 54+94.49	0'	761916.85	1796596.79
P.I. 55+03.95	0.89'	761923.53	1796603.49
P.T. 55+13.19	0'	761932.19	1796607.30
P.O.T. 55+24.22	0'	761942.30	1796611.73
P.O.T. 60+00.00	0'	761999.81	1796636.80
P.C. 60+12.06	0'	762011.03	1796641.20
P.I. 60+19.32	0.52'	762017.79	1796643.85
P.R.C. 60+26.48	0'	762025.03	1796644.47
P.I. 60+33.83	0.54'	762032.35	1796645.10
P.T. 60+41.08	0'	762039.19	1796647.80
P.O.T. 62+72.19	0'	762254.06	1796732.93
P.O.T. 70+08.63	0'	762305.75	1796753.06
P.C. 70+20.08	0'	762316.44	1796757.14
P.I. 70+26.08	0.36'	762322.05	1796759.29
P.R.C. 70+32.03	0'	762328.01	1796760.04
P.I. 70+38.04	0.36'	762333.97	1796760.80
P.T. 70+43.98	0'	762339.58	1796762.94
P.O.T. 74+31.50	0'	762701.57	1796901.25
P.O.T. 80+00.00	0'	762741.42	1796732.93
P.C. 83+39.65	0'	763060.62	1797032.47
P.I. 84+65.48	15.59'	763178.87	1797075.47
P.T. 85+86.19	0'	763303.39	1797057.38
P.O.T. 86+24.74	0'	763341.54	1797051.84

REFERENCE POINTS – SIDE ROADS			
DESCRIPTION	OFFSET	NORTHING	EASTING
RINGS ROAD			
P.O.T. 600+00.00	0'	760405.21	1796239.50
P.O.T. 602+00.00	0'	760424.13	1796438.60
GRANDVIEW DRIVE			
P.O.T. 100+00.00	0'	761988.26	1796448.94
P.O.T. 102+00.00	0'	761977.01	1796648.63
LONGVIEW DRIVE			
P.O.T. 200+00.00	0'	762296.08	1796564.14
P.O.T. 202+00.00	0'	762279.55	1796763.46
MARION STREET			
P.O.T. 300+00.00	0'	762755.51	1796635.20
P.O.T. 303+00.00	0'	762730.03	1796934.11

CALCULATED CNK
CHECKED TJS

REFERENCE POINTS

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\173608736p01.dwg REFERENCE POINTS Last Saved: Jun 21, 2013 8:12 AM Plotted: May 29, 2015 4:34 PM

GENERAL NOTES

CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2012 EDITION AND ALL REVISIONS, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE PART OF THIS PLAN, UNLESS OTHERWISE NOTED.

IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO PROVIDE AND REQUIRE A COMPLETED PROJECT READY FOR OPERATION. ANY WORK ITEMS OMITTED FROM THE CONTRACT DOCUMENTS WHICH ARE CLEARLY NECESSARY FOR COMPLETION OF THE WORK AND ITS APPURTENANCES SHALL BE CONSIDERED A PART OF SUCH WORK, THOUGH NOT DIRECTLY SPECIFIED OR CALLED FOR IN THE CONSTRUCTION DOCUMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO, SUCH INCIDENTAL ITEMS AS RELOCATION OF MAIL BOXES, SAW CUTTING, AND REMOVAL AND/OR RELOCATION OF SIGNS, SPRINKLERS, OR OTHER MISCELLANEOUS ITEMS.

ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR WITH THE COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS RELATED ITEMS.

THE CONTRACTOR INTENDING TO SUBMIT A BID FOR CITY OF DUBLIN (HEREIN AFTER REFEREED TO AS "CITY") CAPITAL IMPROVEMENT CONTRACTS SHALL BE PREQUALIFIED WITH THE OHIO DEPARTMENT OF TRANSPORTATION AS PER SECTION 102 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS AND CHAPTER 5525 OF THE OHIO REVISED CODE CONCERNING CONSTRUCTION CONTRACTS.

THE CONTRACTOR SHALL NOTIFY THE CITY OF DUBLIN, DIVISION OF ENGINEERING IN WRITING AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.

THE CITY ENGINEER SHALL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED HEREIN. THE CITY ENGINEER SHALL NOT BE RESPONSIBLE FOR SAFETY ON THE WORK SITE, OR FOR FAILURE BY THE CONTRACTOR TO PERFORM WORK ACCORDING TO CONTRACT DOCUMENTS.

THE CITY SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS.

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.

ANY MODIFICATION TO THE WORK AS SHOWN ON THESE APPROVED PLANS SHALL HAVE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.

THE CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO PUBLIC RIGHT-OF-WAY AND AREAS DEFINED AS PERMANENT AND/OR TEMPORARY CONSTRUCTION EASEMENTS, AND/OR THE LIMITS OF DISTURBANCE SHOWN.

PROPERTY BOUNDARIES, INCLUDING PROPERTY LINES AND ROAD RIGHT-OF-WAY, ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AND ARE NOT NECESSARILY COMPLETE OR CORRECT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE FINISHED WORK CONFORM TO THE LINES, GRADE, ELEVATIONS, AND DIMENSIONS CALLED FOR ON THE DRAWINGS AND TYPICAL SECTIONS. PAYMENT FOR CONSTRUCTION LAYOUT SHALL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM 623, CONSTRUCTION LAYOUT STAKES.

NON-RUBBER TIRED VEHICLES SHALL NOT BE MOVED ON OR ACROSS PUBLIC STREETS OR HIGHWAYS WITHOUT THE PERMISSION OF THE CITY ENGINEER.

THE CONTRACTOR SHALL SUBSTANTIALLY RESTORE ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION. DRAINAGE DITCHES OR WATERCOURSES THAT ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THE GRADES AND CROSS-SECTIONS THAT EXISTED BEFORE CONSTRUCTION.

TRACKING OR SPILLING MUD, DIRT OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS OR MULTI-USE PATHS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE CITY. IF THE CONTRACTOR FAILS TO REMOVE THE MUD, DIRT, DEBRIS, OR SPILLAGE, THE CITY OF DUBLIN RESERVES THE RIGHT TO REMOVE THESE MATERIALS AND CLEAN AFFECTED AREAS, THE COST OF WHICH SHALL BE WITHHELD FROM MONIES THAT ARE DUE OR MAY BECOME DUE TO THE CONTRACTOR.

EXCESS EXCAVATED MATERIAL FROM THIS PROJECT SHALL BE HAULED OFF-SITE BY THE CONTRACTOR AND COMPENSATION FOR HAULING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203.

TOP OF PAVEMENT ELEVATIONS SHOWN ON THE PAVEMENT DETAILS MAY REFLECT DEVIATIONS FROM THE ROADWAY PROFILES AND TYPICAL SECTION CROSS SLOPES IN SOME AREAS DUE TO PAVEMENT WARPING. IN ALL CASES, THE TOP OF PAVEMENT ELEVATIONS SHOWN ON THE PAVEMENT DETAILS SHALL GOVERN.

PAVEMENTS SHALL BE CUT IN NEAT, STRAIGHT LINES THE FULL DEPTH OF THE EXISTING PAVEMENT, OR AS REQUIRED BY THE CITY ENGINEER. PAVEMENT REPLACEMENT SHALL BE CONDUCTED ACCORDING TO CITY OF COLUMBUS STANDARD DRAWING 1441 DR. A AND APPLICABLE CITY OF DUBLIN STANDARD DRAWINGS. THE REPLACEMENT OF DRIVEWAYS, HANDICAPPED RAMPS, SIDEWALKS, MULTI-USE PATHS, PARKING LOT PAVEMENT, ETC. SHALL BE PROVIDED ACCORDING TO THE APPROVED CONSTRUCTION DRAWINGS AND CITY OF DUBLIN STANDARD CONSTRUCTION DRAWINGS.

THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER AT THE PRECONSTRUCTION MEETING HIS PROPOSED DESIGN MIX FORMULA FOR ALL BITUMINOUS MIXTURES TO BE PLACED ON THE PROJECT FOR REVIEW AND APPROVAL. A DESIGN MIX FORMULA SHALL BE SUBMITTED FOR EACH MIXTURE AND EACH PRODUCER AND SHALL PROVIDE GRADATION OF ALL COMPONENT AGGREGATES, PERCENTAGE OF BLENDING OF AGGREGATES, PERCENTAGE OF BITUMEN, ANY ADDITIVES AND APPLICATION RATE, NAMES AND ADDRESSES OF AGGREGATE SUPPLIERS, MARSHALL MIX DESIGN DATA, AND THE THEORETICAL LABORATORY DENSITY.

ALL SOIL SUBGRADES SHALL BE PREPARED AND COMPACTED IN ACCORDANCE WITH ITEM 204 SUBGRADE COMPACTION TO A DEPTH OF 12-INCHES BELOW THE SUBGRADE SURFACE. SUBGRADE SHALL BE SCARIFIED AND CONTAIN SUFFICIENT MOISTURE TO MEET ITEM 204 SUBGRADE COMPACTION REQUIREMENTS.

SUBGRADE COMPACTION SHALL ALSO BE REQUIRED UNDER THE MULTI-USE PATHS, AND SHALL FOLLOW THE REQUIREMENTS FOR COMPACTION UNDER DRIVEWAYS AS DESCRIBED IN SECTION 204.03. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 204, SUBGRADE COMPACTION.

NO BLASTING WILL BE PERMITTED ON THIS PROJECT.

THE CONTRACTOR IS NOT PERMITTED TO USE ANY RECLAIMED MATERIALS IN ITEM 304.

THE CONTRACTOR SHALL DEFINE THE LIMITS OF ANY WEAK SOILS ENCOUNTERED BY PROOF ROLLING. WHERE SOFT SUBGRADE IS ENCOUNTERED IN CUTS, DUE TO NO FAULT OF THE CONTRACTOR, AND SATISFACTORY COMPACTION CANNOT BE OBTAINED, THE UNSTABLE MATERIAL SHALL BE REMOVED AND REPLACED PER ITEM 203.13. THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED AS AN ALLOWANCE FOR BIDDING PURPOSES.

ITEM 203 EXCAVATION	130 CY
ITEM 203 SELECT GRANULAR EMBANKMENT, #2 STONE	130 CY

ITEM 202, "STRUCTURES REMOVED AND DISPOSED OF" SHALL INCLUDE REMOVAL AND DISPOSAL OF ALL HEADWALLS; UNDERGROUND CONCRETE DUCT, CONDUIT, OR CABLE; AND ANY OTHER STRUCTURES AND OBSTRUCTIONS NOT DESIGNATED TO REMAIN THAT ARE NOT COVERED UNDER OTHER ITEMS IN THE CONTRACT.

THE COST OF ALL ASPHALT PAVEMENT REMOVAL AND DISPOSAL SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR ITEM 203 - EXCAVATION. THE COST OF CONCRETE PAVEMENT REMOVAL AND DISPOSAL WILL BE PAID AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 202 - PAVEMENT REMOVED AND DISPOSED OF.

PROOF SURVEY

FOLLOWING COMPLETION OF CONSTRUCTION, A PROOF SURVEY SHALL BE PROVIDED BY THE CONTRACTOR TO THE DIVISION OF ENGINEERING THAT DOCUMENTS AS-BUILT INFORMATION OF ALL ELEMENTS OF THIS PROJECT. THE SURVEY SHALL BE PREPARED AND SIGNED BY AN OHIO PROFESSIONAL SURVEYOR. THE CONTRACTOR SHALL REVISE THE ORIGINAL MYLARS IN RED INK, TO THE SATISFACTION OF THE CITY, SHOWING ALL CHANGES IN THE WORK. THE COST OF THE PROOF SURVEY, INCLUDING MYLAR REVISIONS, WILL BE PAID AT THE LUMP SUM PRICE BID FOR ITEM SPECIAL, PROOF SURVEY.

SURVEY MONUMENTATION

THE CONTRACTOR SHALL CONTACT THE FRANKLIN COUNTY ENGINEER'S OFFICE, SURVEY DEPARTMENT AT 614-525-3026 TWO WORKING DAYS BEFORE DISTURBING ANY FRANKLIN COUNTY GEODETIC MONUMENTS (VERTICAL AND/OR HORIZONTAL) FOR REFERENCE AND REPLACEMENT.

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 AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION NOISE

ANY DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT. THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED SO AS TO ELIMINATE ALL UNNECESSARY NOISE, DUST, AND ODORS. THE USE OF OIL OR OTHER MATERIAL FOR DUST CONTROL, WHICH MAY CAUSE TRACKING, IS NOT PERMITTED.

ITEM SPECIAL, PIPE CLEANOUT

THIS WORK SHALL CONSIST OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 105.16 AND 105.17. ALL STORM SEWERS SHALL BE CLEANED OUT TO THE SATISFACTION OF THE ENGINEER.

CLEANOUT OF THE PIPE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL, PIPE CLEANOUT. THIS PRICE SHALL INCLUDE THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE NOTED WORK:

SPECIAL, PIPE CLEANOUT 770 LF

STATION LIMITS	SIZES	SHEETS
32+19 - 40+39	18"	12
46+62 - 47+99	6", 12", 36"	14
53+88	60"	15
70+35 - 80+18	15"	16-17

UTILITIES

THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO OHIO UTILITIES PROTECTION SERVICE (TELEPHONE NUMBER 800-362-2764), AND TO OWNERS OF UNDERGROUND UTILITIES THAT ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE. NOTICE SHALL BE GIVEN AT LEAST TWO WORKING DAYS BEFORE START OF CONSTRUCTION.

THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY. THE CITY OF DUBLIN AND THE CITY ENGINEER ASSUME NO RESPONSIBILITY FOR THE ACCURACY OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE PLANS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.

LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY AND THE CITY ENGINEER.

UTILITIES KNOWN TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT ARE LISTED BELOW WITH CONTACT INFORMATION.

AT&T
KEVIN GLASER
111 N. 4TH STREET, ROOM 802
COLUMBUS, OHIO 43215
(614) 223-6424
(614) 208-9312 (MOBILE)

COLUMBIA GAS OF OHIO
ROB CALDWELL
3550 JOHNNY APPLESEED COURT
COLUMBUS, OHIO 43230
(614) 818-2108

TIME WARNER CABLE
RAY MAURER
3760 INTERCHANGE DRIVE
COLUMBUS, OHIO 43204
(614) 348-2979 (MOBILE)

WIDE OPEN WEST
DAN QUINN
3675 CORPORATE DRIVE
COLUMBUS, OHIO 43231
(614) 668-7263 (MOBILE)

AMERICAN ELECTRIC POWER
PAUL PAXTON
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230-6605
(614) 883-6831

DUBLINK (TEAM FISHEL)
JOE TEPPER
1600 WALCUTT ROAD
COLUMBUS, OH 43228
(614) 921-8620

CITY OF DUBLIN
DIVISION OF ENGINEERING
MIKE SWEDER, P.E.
5800 SHIER-RINGS ROAD
DUBLIN, OHIO 43016-1236
(614) 410-4621

CITY OF COLUMBUS
DIVISION OF WATER
910 DUBLIN ROAD
COLUMBUS, OHIO 43215
(614) 645-7788

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THE WORK LIMITS.

AMERICANS WITH DISABILITIES ACT (ADA)

ALL SIDEWALKS, PEDESTRIAN PATHS, CURB RAMPS, AND DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAGG).

THE ELEVATIONS AND SLOPES PROVIDED ON THE DRAWINGS ARE INTENDED TO CONVEY A DESIGN THAT IS COMPATIBLE WITH ADA GUIDELINES. THE CONTRACTOR SHALL DETERMINE THE EXISTING ELEVATIONS OF ADJACENT NEW OR EXISTING CONCRETE CURB AND ADJACENT NEW OR EXISTING WALK PRIOR TO THE START OF RAMP CONSTRUCTION. ADJUSTMENTS IN GRADE SHALL BE MADE BY THE CONTRACTOR BASED ON THE ELEVATION INFORMATION TO INSURE THAT THE FINISHED WORK IS IN ACCORDANCE WITH ADA GUIDELINES.

ALL DETECTABLE WARNINGS SHALL BE ADA SOLUTIONS TACTILE WARNING SURFACE MATS - REPLACEABLE WET-SET COMPOSITE TACTILE WITH A DOME SPACING OF 2.35 INCHES, MANUFACTURER PART NUMBER 2448REP. BRICK RED COLOR SHALL BE USED IN MOST LOCATIONS UNLESS OTHERWISE NOTED. THE COST OF THIS WORK WILL BE PAID AT THE UNIT PRICE BID PER EACH, AND SHALL BE IN ADDITION TO ANY OVERLAPPING PAYMENTS PER SQUARE FOOT FOR SIDEWALK OR PEDESTRIAN PATH.

FRANKLIN COUNTY PERMIT

THE CONTRACTOR SHALL SECURE A WRITTEN PERMIT FROM THE FRANKLIN COUNTY ENGINEER'S OFFICE, 970 DUBLIN ROAD, TWO WORKING DAYS PRIOR TO BEGINNING WORK WITHIN FRANKLIN COUNTY RIGHT-OF-WAY. THE CONTRACTOR MAY BE REQUIRED TO POST A BOND WITH THE FRANKLIN COUNTY ENGINEER PRIOR TO ISSUANCE OF THE PERMIT TO INSURE PROPER RESTORATION OF THE PAVEMENT AND RIGHT-OF-WAY. THE CONTRACTOR SHALL PROVIDE THE FRANKLIN COUNTY ENGINEER'S OFFICE A 24-HOUR TELEPHONE NUMBER TO BE USED IN CASE OF AN EMERGENCY.

CALCULATED CNK
CHECKED TJS

GENERAL NOTES

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\173608736gn01.dwg GENERAL NOTES Last Saved: May 29, 2015 3:52 PM, TSHKOLNIK Plotted: May 29, 2015 4:34 PM

TRENCH AND BACKFILL

TRENCH EXCAVATION SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF OPEN TRENCH AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

ALL TRENCHES WITHIN PUBLIC RIGHT-OF-WAY SHALL BE BACKFILLED 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.

BACKFILL WITHIN A 1:1 INFLUENCE LINE OF EXISTING STRUCTURES (HOUSES, GARAGES, ETC.) OR PUBLIC INFRASTRUCTURE (PAVEMENTS, SIDEWALKS, CURBS, ETC.) SHALL BE ITEM 912 – COMPACTED GRANUAL MATERIAL, OR ITEM 636 – FLOWABLE CONTROLLED DENSITY FILL, TYPE 2.

GRANULAR BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS OR CONTROLLED DENSITY BACKFILL ACCORDING TO ITEM 636, TYPE 2, OF THE STANDARD SPECIFICATIONS AS DIRECTED BY THE CITY ENGINEER. ITEM 912 MATERIAL SHALL CONSIST OF NATURAL, BROKEN, OR CRUSHED ROCK. SYNTHETIC OR MANMADE MATERIALS ARE UNACCEPTABLE.

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.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NEITHER ORDER MATERIALS NOR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE CITY ENGINEER" UNLESS AUTHORIZED BY THE CITY ENGINEER.

TEMPORARY EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE CITY ENGINEER FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

ITEM 207 – FILTER FABRIC FENCE 2000 FT

ITEM SPECIAL – TREE PROTECTION FENCE

ALL TREES WITHIN THE CONSTRUCTION AREA NOT DESIGNATED FOR REMOVAL, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE PRESERVED WITHOUT DAMAGE. TREES TO BE PRESERVED SHALL BE PROTECTED WITH HIGH VISIBILITY FENCING PLACED A MINIMUM OF 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. WHERE 15 FEET CANNOT BE MAINTAINED, THE FENCING SHALL BE PLACED IN SUCH A WAY AS TO MAXIMIZE PROTECTION OF THE BRANCHES, TRUNK, AND ROOTS. A QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR SAID WORK.

TREES NOT INDICATED ON THE APPROVED CONSTRUCTION DRAWINGS FOR REMOVAL MAY NOT BE REMOVED WITHOUT PRIOR APPROVAL OF THE DIVISION OF ENGINEERING.

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE CITY ENGINEER:

ITEM SPECIAL – TREE PROTECTION FENCE 1000 FT

ITEM 609 – 6" CONCRETE COMBINATION CURB AND GUTTER, AS PER PLAN

THE 6" CONCRETE COMBINATION CURB AND GUTTER SHALL BE IN ACCORDANCE WITH CITY OF DUBLIN STANDARD DRAWING RD-02.

WHERE THESE ITEMS ARE TO BE PLACED WITHIN OR ADJACENT TO EXISTING PAVEMENT, THE PAVEMENT SHALL BE SAWCUT, REMOVED, AND REPLACED IN ACCORDANCE WITH THE PLAN LOCATIONS AND DETAILS. THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO SAWCUT, REMOVE AND REPLACE THE AFFECTED EXISTING PAVEMENT AREA SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PERTINENT 609 ITEM.

ITEM 608 – 4" CONCRETE WALK, AS PER PLAN
ITEM 608 – CONCRETE STEPS, AS PER PLAN

IN ADDITION TO THE CONCRETE WALK, THE CONTRACTOR SHALL PLACE A 4" BASE OF #57 CRUSHED AGGREGATE THE FULL WIDTH OF THE WALK. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 608 – 4" CONCRETE WALK, AS PER PLAN AND ITEM 608 – CONCRETE STEPS, AS PER PLAN.

ITEM 201 – TREES OR STUMPS REMOVED, 18" SIZE
ITEM 201 – TREES OR STUMPS REMOVED, 30" SIZE

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER ITEM 201 – TREES OR STUMPS REMOVED, 18" SIZE, AND ITEM 201 – TREES OR STUMPS REMOVED, 30" SIZE. TREES WITH TRUNK DIAMETERS 12 INCHES AND LESS SHALL BE CONSIDERED BRUSH AND THEIR REMOVAL PAID UNDER ITEM 201 – CLEARING AND GRUBBING UNLESS DESIGNATED IN THE PLAN TO SAVE.

THE CITY OF DUBLIN RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES AND/OR STUMPS OUTSIDE THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES.

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.

STORM SEWER

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES STORM SEWER, DRAIN, AND DITCH FLOWS THROUGH EXISTING FACILITIES TO REMAIN IN PLACE AND THROUGH EXISTING FACILITIES TO BE REPLACED UNTIL NEW FACILITIES ARE COMPLETED AND PUT INTO SERVICE. THE FLOW OF ALL STORM SEWERS, DRAINS, AND OTHER WATER COURSES ENCOUNTERED AND DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO A CONDITION SATISFACTORY TO THE CITY ENGINEER.

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY, REPRESENTATIVES OF THE CITY AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY.

ALL NEW CONDUITS, INLETS, CATCH BASINS AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEANED CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT CONTRACT ITEMS.

WHERE PLANS CALL FOR CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES FOR BOTH LINE AND GRADE PRIOR TO THE START OF PIPE LAYING.

IF IT IS DETERMINED THAT A PROPOSED CONDUIT WILL CONFLICT WITH AN EXISTING SEWER OR UNDERGROUND UTILITY WHEN CONSTRUCTED AS SHOWN ON THE PLAN, THE CITY ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION ON ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE CONFLICT.

PAYMENT FOR THE DETERMINATION OF LINE AND GRADE OF EXISTING UTILITIES AS REQUIRED SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT CONTRACT ITEMS.

ALL FIELD TILE BROKEN OR ENCOUNTERED DURING EXCAVATION SHALL BE REPLACED OR REPAIRED IN LIKE KIND AND CONNECTED TO THE STORM SEWER SYSTEM OR OPEN CHANNEL OUTLET, RESTORING NORMAL FUNCTION TO THE TILE, AS DIRECTED BY THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

ALL PRECAST CONCRETE PRODUCTS SHALL BE INSPECTED AT THE LOCATION OF MANUFACTURE. APPROVED PRECAST CONCRETE PRODUCTS WILL BE STAMPED NOTING THAT INSPECTION HAS BEEN PERFORMED BY THE CITY OF DUBLIN. PRECAST CONCRETE PRODUCTS WITHOUT PROOF OF INSPECTION SHALL NOT BE APPROVED FOR INSTALLATION.

ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C76, WALL B, CLASS IV FOR PIPE DIAMETERS 12 INCHES TO 15 INCHES, CLASS III FOR 18 INCHES TO 24 INCH PIPES, AND 27 INCHES AND LARGER PIPE SHALL BE CLASS II, UNLESS OTHERWISE SHOWN ON THE PLANS.

THE CONTRACTOR SHALL PLACE CURB & GUTTER INLETS WITHIN THE CURB LINE IN ACCORDANCE WITH COLUMBUS STANDARD DRAWING AA-S125.

ALL INLETS, CATCH BASINS, AND MANHOLES SHALL BE CHANNELIZED.

ALL EXISTING AND PROPOSED CASTINGS SHALL BE ADJUSTED TO MATCH THE SURROUNDING FINISH GRADE BY THE CONTRACTOR. TOP OF CASTING ELEVATIONS PROVIDED ON THE PLANS ARE APPROXIMATE. PAYMENT UNDER ITEM 604 – MANHOLES ADJUSTED TO GRADE, SHALL ONLY BE FOR CASTING ADJUSTMENTS ON EXISTING MANHOLES THAT REQUIRE NO OTHER WORK. THE COST OF ALL ADDITIONAL ADJUSTMENTS SHALL BE INCLUDED IN THE VARIOUS SEWER ITEMS.

WHERE BACKFILLING WITH CONCRETE AROUND A STORM SEWER PIPE IS DETERMINED TO BE NECESSARY, BY EITHER CALL OUT ON THE PLANS, OR AS DIRECTED BY THE ENGINEER, THE WORK SHALL BE IN ACCORDANCE WITH THE CITY OF COLUMBUS STANDARD DRAWING AA-S151, TYPE 1 BEDDING FOR RIGID SEWER PIPE USING CLASS "A" CONCRETE. THE TOTAL LENGTH OF BACKFILL SHALL BE FOR ALL EXPOSED PORTIONS OF PIPE, OR AS DIRECTED BY THE ENGINEER.

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

ITEM 901 – 4" PIPE WITH TYPE 1 BEDDING 100 LF

ITEM 604 – INLETS & CATCH BASINS, A.P.P.

BICYCLE SAFE GRATES SHALL BE USED FOR ALL PROPOSED CURB AND GUTTER INLETS AND CATCH BASINS. ALL CATCH BASINS ARE TO BE EQUIPPED WITH EAST JORDAN #5110, TYPE M3 GRATES.

ITEM 630 – GROUND MOUNTED SUPPORT, NO. 3, TYPE S, AS PER PLAN

ALL SIGN SUPPORTS SHALL BE 2-INCH SQUARE GALVANIZED POSTS WITH DIE CUT KNOCK OUTS (ALLIED QUICK-PUNCH SUPPORTS OR APPROVED EQUAL). A SINGLE BREAKAWAY ANCHOR SHALL BE USED. ALL SIGNS SHALL BE ERECTED WITH A 7-FOOT VERTICAL CLEARANCE BETWEEN THE TOP OF CURB OR EDGE OF PAVEMENT AND THE BOTTOM OF EACH SIGN, UNLESS OTHERWISE DESIGNATED BY THE CITY ENGINEER. HORIZONTAL CLEARANCE FOR BOTH CURB AND DITCH SECTIONS SHALL BE AS PER ODOT STANDARDS. THE ANCHOR POST SHALL BE PAID FOR SEPARATELY. PAYMENT FOR THIS ITEM SHALL BE FOR THE LENGTH ONLY, INCLUDING THE 8" OVERLAP IN THE ANCHOR POST, AND ALL MISCELLANEOUS ATTACHMENT HARDWARE.

ITEM 630 – 2-1/4" SQUARE ANCHOR POST, AS PER PLAN

IN ADDITION TO ITEMS 630 AND 730, THE ANCHOR POST PROVIDED AND INSTALLED WITH THE GROUND MOUNTED SIGN SUPPORT SHALL BE AS PER ODOT SCD TC-41.20, AND SHALL BE 48" IN LENGTH. THE ANCHOR SHALL BE 2-1/4 INCHES SQUARE, 12 GA., WITH A 2-1/2-INCH OVERSLEEVE 18 INCHES LONG OVER TOP OF THE ANCHOR. THIS ITEM SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH.

ITEM 630 – SIGNS, FLAT SHEET

TRAFFIC CONTROL SIGNS, AS SHOWN ON THE DRAWINGS, SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE PROVISIONS OF ODOT ITEM 630, UNLESS OTHERWISE NOTED.

ITEM 630 – REMOVAL OF GROUND MOUNTED SIGN AND STORAGE

ALL EXISTING GROUND MOUNTED SIGNS WITHIN THE PROJECT AREA SHALL BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE CITY AT A LOCATION TO BE DETERMINED WITHIN THE DUBLIN CITY LIMITS. THE CONTRACTOR SHALL COMPENSATE THE CITY IN AN AMOUNT EQUAL TO THE REPLACEMENT COST OF ANY SIGNS DAMAGED AS A RESULT OF THE CONSTRUCTION OPERATIONS. PAYMENT FOR SIGN REMOVAL AND DELIVERY WILL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM 630, REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL.

ALL ROADWAY SIGNAGE WILL BE FURNISHED AND INSTALLED BY THE CITY OF DUBLIN INCLUDING, BUT NOT LIMITED TO, SUPPORTS, ANCHOR POSTS, SUPPORT ASSEMBLIES, FLAT SHEET AND POST REFLECTORS.

ITEM 653 – TOPSOIL FURNISHED AND PLACED, AS PER PLAN

A MINIMUM 3 INCHES OF TOPSOIL SHALL BE PLACED IN ALL AREAS TO BE SEEDED. PRIOR TO PLACING TOPSOIL IN CUT AREAS, THE EARTH SHALL BE EXCAVATED TO A DEPTH SUFFICIENT TO PLACE 3 INCHES OF TOPSOIL. THE COST OF EXCAVATION AND DISPOSAL OF SURPLUS MATERIALS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE VARIOUS CONTRACT ITEMS.

TOPSOIL SHALL BE REMOVED AND WASTED OR UTILIZED IN NON-LOAD BEARING FILLS IN ACCORDANCE WITH THE SPECIFICATIONS. NO EXTRA COMPENSATION SHALL BE PAID FOR THE REMOVAL OF EXCESS TOPSOIL AS REQUIRED TO OBTAIN A SUITABLE SUBGRADE. PAYMENT FOR TOPSOIL REMOVAL IS INCLUDED IN ITEM 203, EXCAVATION.

ALL TOPSOIL MATERIALS AND FINAL AREA OF SUBGRADE PREPARATION SHALL BE FREE FROM ROCK AND OTHER FOREIGN MATERIAL 1/2" OR GREATER IN ANY DIMENSION.

ITEM 659 – SEEDING AND MULCHING, A.P.P.

SEED – CERTIFICATION OF GRASS SEED SHALL BE PROVIDED BY SEED VENDOR FOR EACH GRASS-SEED MIXTURE STATING THE BOTANICAL AND COMMON NAME, PERCENTAGE BY WEIGHT OF EACH SPECIES AND VARIETY; AND PERCENTAGE OF PURITY, GERMINATION, AND WEED SEED. INCLUDE THE YEAR OF PRODUCTION AND DATE OF PACKAGING. FURNISH NATIONAL TURFGRASS EVALUATION PROGRAM (NTEP) DATA FOR EACH SPECIES TO BE USED.

GRASS SEED MUST BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH THE A.O.S.A. "JOURNAL OF SEED TECHNOLOGY" RULES FOR TESTING SEEDS FOR PURITY AND GERMINATION TOLERANCES.

SEED SPECIES SHALL BE AS FOLLOWS, WITH NOT LESS THAN **90 PERCENT GERMINATION**, NOT LESS THAN **98 PERCENT PURE SEED**, AND NOT MORE THAN 0.5 PERCENT WEED SEED.

TURFGRASS SEED MIX PROPORTIONED BY WEIGHT:

A. 80 PERCENT TALL FESCUE (FESTUCA ARUNDINACEA), WITH A MINIMUM OF 3 IMPROVED TURF-TYPE VARIETIES. KENTUCKY-31 AND ALTA VARIETIES ARE NOT APPROVED.
B. 20 PERCENT PERENNIAL RYEGRASS (LOLIUM PERENNE).

SEEDING – SOW SEED AT A TOTAL RATE OF 7-9 LB. / 1,000 SF WITH A SPREADER OR SEEDING MACHINE. RAKE SEED LIGHTLY INTO TOP 1/8 INCH OF SOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY. THOROUGHLY COVER WITH STRAW AND NETTING. NETTING SHALL BE ADEQUATELY PINNED TO PREVENT THE STRAW FROM BEING BLOWN OR WASHED AWAY.

PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 3:1 WITH EROSION CONTROL BLANKETS AS DIRECTED BY THE ENGINEER. COST OF EROSION CONTROL BLANKETS, MATERIAL, AND LABOR SHALL BE PAID FOR BY THE CITY.

HYDRO-SEEDING & HYDRO-MULCHING ARE NOT PERMITTED.

TURF MAINTENANCE – MAINTAIN AND ESTABLISH TURF BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND REPLANTING TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE THE SAME MATERIALS AND INSTALLATION AS THOSE USED IN THE ORIGINAL INSTALLATION. WATER TURF WITH FINE SPRAY AT A MINIMUM RATE OF 1 INCH PER WEEK UNLESS RAINFALL PRECIPITATION IS ADEQUATE.

MOW TURFGRASS SEED MIX AREAS AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN 1/3 OF GRASS HEIGHT. MOW AREAS TO A HEIGHT OF 2 TO 3 INCHES.

CALCULATED CNK
CHECKED TJS

GENERAL NOTES

DUBLIN ROAD SOUTH
MULTI-USE PATH

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ITEM 901 – 42" PIPE, WITH TYPE 1 BEDDING, AS PER PLAN

IN ADDITION TO CONFORMING TO CITY OF COLUMBUS SPECIFICATION 901, THIS ITEM SHALL INCLUDE THE CONSTRUCTION OF A BULKHEAD AT THE CONNECTION TO THE EXISTING 60" CULVERT AT STA. 53+88.20. THE PRICE BID PER LINEAR FOOT SHALL INCLUDE ALL MATERIAL, LABOR AND INCIDENTALS REQUIRED TO PERFORM THE ABOVE MENTIONED WORK TO THE SATISFACTION OF THE ENGINEER.

PRIVATE LANDSCAPING ITEMS

CONTRACTOR SHALL CAREFULLY REMOVE AND DELIVER TO THE HOME OWNER PRIVATE LANDSCAPING ITEMS LOCATED WITHIN THE CONSTRUCTION LIMITS. SUCH ITEMS INCLUDE BUT ARE NOT LIMITED TO LANDSCAPE LIGHTING, ORNAMENTAL FENCES, STONE BOULDERS, ETC.

ROCK CUT EXCAVATION

ROCK CUT ELEVATIONS SHOWN IN THESE PLANS REPRESENT A CULMINATION OF GEOTECHINAL INVESTIGATIONS PERFORMED FOR THIS PROJECT AND REPORTS COMPLETED FOR THE UPPER SCIOTO WEST INTERCEPTOR PROJECT. IT IS THE INTENT OF THIS PROJECT TO PROVIDE THE CONTRACTOR A QUANTITY OF ROCK CUT EXCAVATION BASED ON THE PREVIOUS AND CURRENT REPORTS. THEREFORE, IN ADDITION TO THE QUANTITIES PROVIDED IN THE CROSS SECTIONS, THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 203 – ROCK CUT EXCAVATION 40 CY

ITEM SPECIAL – BRICK WALK, AS PER PLAN

THIS ITEM SHALL INCLUDE THE REMOVAL OF EXISTING BRICK WALK, EXCAVATION TO THE APPROPRIATE DEPTH, SUBGRADE COMPACTION, ITEM 304 AGGREGATE BASE, ITEM 452 CONCRETE BASE SLAB, BITUMINOUS SETTING BED, NEOPRENE ADHESIVE, PLACEMENT OF THE EXISTING (AND ANY ADDITIONAL NEW) BRICK, AND POLYMER SAND JOINT FILL. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL–BRICK WALK, AS PER PLAN.

NEOPRENE–MODIFIED ASPHALT ADHESIVE: FURNISH NEOPRENE MODIFIED ASPHALT ADHESIVE THAT CONTAINS 2% GRADE WM1 NEOPRENE, OXIDIZED ASPHALT WITH A 150 DEGREE SOFTENING POINT (77 PENETRATION), AND 10% LONG–FIBERED INERT MATERIAL, AS SUPPLIED BY SEIDEL COMPANY, INC., NEWBURYPORT, MA, (617) 649–6740; HASTINGS PAVEMENT COMPANY, INC., LAKE SUCCESS, NY, (516) 379–3500; OR APPROVED EQUAL.

BITUMINOUS SETTING BED, 3/4–INCH: FURNISH ASPHALT CEMENT CONFORMING TO ASTM D 3381, PG64–22. FINE AGGREGATE SHALL BE NATURAL SAND AND/OR STONE SAND COMPOSED OF HARD, DURABLE, UNCOATED PARTICLES, FREE FROM CLAY, SILT, ORGANIC MATERIAL, OR OTHER DELETERIOUS SUBSTANCES. ALL SAND SHALL BE UNIFORMLY GRADED AND PASS A NO. 4 SIEVE, MEETING THE REQUIREMENTS OF ASTM C 136. THE DRIED FINE AGGREGATE SHALL BE MIXED WITH HOT ASPHALT CEMENT AT THE PLANT AND HEATED TO APPROXIMATELY 300 DEGREES (F). APPROXIMATE MATERIAL PROPORTIONS SHALL BE 7% ASPHALT CEMENT AND 93% FINE AGGREGATE; OR 140 LBS ASPHALT TO 1,860 LBS FINE AGGREGATE PER TON.

SAND: ALL JOINTS SHALL BE FILLED WITH POLYMERIC SAND. SAND SHALL BE ALLIANCE XXX GATOR SAND AND BEIGE IN COLOR OR AN APPROVED EQUAL.

EDGING: A BRICK EDGING SHALL BE PROVIDED ALONG ANY WALK EDGE NOT RESTRAINED BY CURB, CURB–AND–GUTTER, SIDEWALK, MULTIUSE PATH, ETC. EDGING TO BE PERMALOC ASPHALT EDGE, BLACK, 3"X3" OR APPROVED EQUAL.

SHOULD ADDITIONAL BRICK BE NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE, BRICK SHALL BE BELDEN BELCREST 530 SERIES CLAY PAVERS, 2–1/4" x 3–5/8" x 7–5/8", MADE BY BELDON BRICK COMPANY, CANTON, OHIO, OR APPROVED EQUAL.

A CONTINGENCY QUANTITY OF 425 SQ. FT. HAS BEEN ADDED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL – GRASS PAVERS, AS PER PLAN

THIS ITEM SHALL INCLUDE PLACEMENT OF GRASS PAVERS, (GEOBLOCK 5150, OR APPROVED EQUAL, INSTALLED PER MANUFACTURER SPECIFICATIONS), IN THE LOCATIONS NOTED IN THE PLANS. WORK SHALL INCLUDE MATCHING THE PROPOSED PAVERS FLUSH (VERTICALLY) AND ADJACENT (HORIZONTALLY) WITH THE EXISTING PAVERS IN THE AREA. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM SPECIAL – GRASS PAVERS, AS PER PLAN.

ITEM SPECIAL – 4" STAMPED CONCRETE WALK (IF AUTHORIZED)

THIS ITEM SHALL INCLUDE REPLACEMENT OF THE CONCRETE WALK AT 355 DUBLIN ROAD. THE NEW WALK SHALL BE STAMPED WITH A PATTERN TO MATCH THAT OF THE EXISTING WALK. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM SPECIAL – 4" STAMPED CONCRETE WALK.

DRY–LAID STONE WALLS

PAYMENT FOR THE PLACEMENT OF STONE WALLS, AS DETAILED IN THESE PLANS SHALL BE PAID FOR AT THE UNIT BID PRICE PER FOOT OF:

ITEM SPECIAL – DRY–LAID STONE WALL, UP TO 18"
ITEM SPECIAL – DRY–LAID STONE WALL, OVER 18" TO 36"
ITEM SPECIAL – DRY–LAID STONE WALL, OVER 36"

EXISTING STONE COLUMNS

THE STONE COLUMNS AT THE NORTH END OF WALL 3 AND THE SOUTH END OF WALL 4 SHALL BE CAREFULLY REMOVED AND RELOCATED AS SHOWN IN THE PLANS (SEE SHEET 13). THE REMAINING COLUMNS SHALL BE REMOVED, DISPOSED OF, AND REPLACED WITH NEWLY CONSTRUCTED COLUMNS.

PAYMENT FOR THE RELOCATION OF STONE COLUMNS SHALL BE PAID FOR AT THE UNIT BID PRICE PER EACH OF ITEM SPECIAL – STONE COLUMN RELOCATED.

DRY–LAID STONE WALL						
WALL #	LOCATION	LENGTH	RELOCATED COLUMN	NEW COLUMN	WALL HEIGHT*	SHEET NO.
3	40+90.26 – 41+03.93	11'	1	1	24"	12/13
4	41+08.91 – 41+31.70	18'	1	1	24"	13
5	41+53.70 – 42+71.84	116'		1	36"	13
6	42+96.94 – 44+12.06	113'		1	40"	13
7	44+31.97 – 47+67.05	333'		1	36"	13/14
8	47+89.31 – 49+45	162'			36"	14
9	50+07.13 – 52+25.81	225'			36"	14/15
10	52+24.45 – 52+28.61	4'			3"	15
11	52+47.89 – 53+47.56	101'			40"	15
12	70+13.13 – 71+97.16	181'		1	36"	16/17
13	72+15.15 – 73+20.98	103'		1	36"	17
14	73+52.65 – 74+21.06	69'			36"	17
15	80+54.80 – 81+45.10	91'			36"	17/18
16	83+14.71 – 83+85.07	80'			48"	18
17**	85+55.66 – 0+50.03 (DRIVE)	69'			18"	18/19

NOTE: WALLS 1 & 2 NOT USED

* WALL HEIGHT = FINISHED GRADE TO TOP OF WALL
** TAPER THE SOUTHERN END OF WALL 17 AT A 1:1 SLOPE

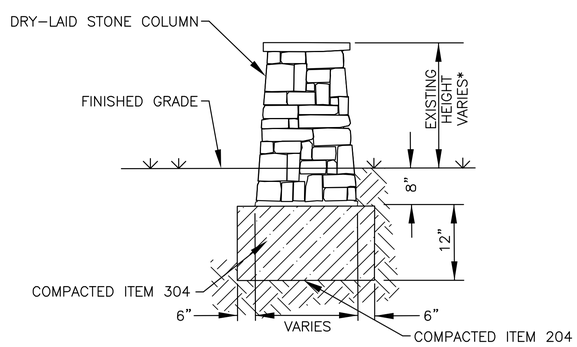
WALL 17

WALL 17 IS TO BE CONSTRUCTED WITH NEW STONE. THE WALL SHALL BE RUSTIC IN NATURE, SIMILAR TO THE EXISTING WALLS ON THIS PROJECT, AND SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.

THE CONSTRUCTION OF WALL 17 SHALL BE PAID FOR AT THE UNIT BID PRICE PER FEET OF ITEM SPECIAL – DRY–LAID STONE WALL, UP TO 18", AS PER PLAN.

ITEM 108.03 – TYPE B CPPM PROGRESS SCHEDULE

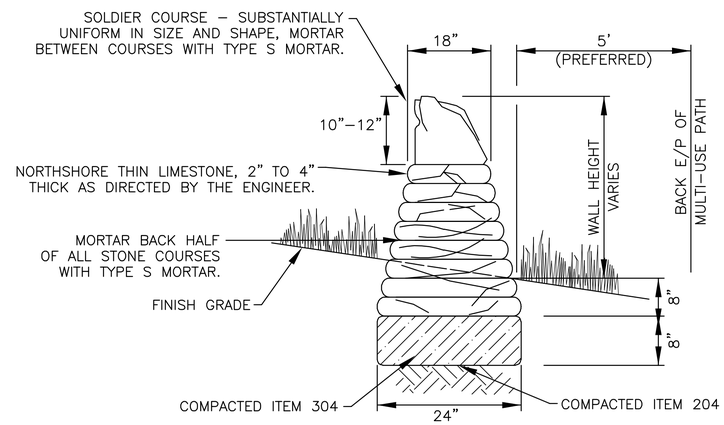
THIS ITEM SHALL BE IN ACCORDANCE WITH CITY OF DUBLIN GENERAL CONDITIONS, SECTION 100.



* PROPOSED COLUMN HEIGHT TO MATCH EXISTING

DRY-LAID COLUMN DETAIL

N.T.S.



NOTES:

1. BATTER WALL–BOTH FACES. MAINTAIN COURSES LEVEL AND SHIM WITH STONE CHIPS TO PROVIDE STABLE COURSING. AMOUNT OF SHIMS TO BE APPROVED BY ENGINEER.
2. NORTHSHORE THIN LIMESTONE (BUFF TO BLUE VEIN COLOR) QUARRIED IN OHIO PROVIDED BY NORTHSHORE OF COLUMBUS (OR APPROVED EQUAL).

DRY-LAID STONE WALL DETAIL

N.T.S.

CALCULATED CNK
CHECKED TJS

GENERAL NOTES

DUBLIN ROAD SOUTH MULTI-USE PATH

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GENERAL NOTES FOR WATER LINES

ALL WATER MAIN MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER. ALL CITY OF COLUMBUS, DIVISION OF WATER STANDARD DRAWINGS SHALL APPLY TO THE PROJECT, UNLESS OTHERWISE NOTED.

IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER LINE SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.

THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND PAY ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES AND REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. COST TO BE INCLUDED IN THE VARIOUS BID ITEMS.

ALL WATER LINES WITH A DIAMETER 3" TO 8" SHALL BE DUCTILE IRON, CLASS 53. WATER LINES WITH A DIAMETER 12" OR LARGER SHALL BE DUCTILE IRON, CLASS 54.

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 RECYCLED MATERIAL) PER A.W.W.A. C-105. THE COLOR SHALL BE BLACK WITH NOMINAL 2% CARBON BLACK UV INHIBITOR AND PRINTED PER THE 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. FOLD EXCESS SLACK 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. LARGE HOLES OR TEARS SHOULD BE REPAIRED BY TAPING ANOTHER PIECE OF POLYETHYLENE OVER THE HOLE. TO AVOID DAMAGE DURING BACKFILLING ALLOW ADEQUATE SLACK IN THE FILM TUBE AT JOINTS. BACKFILL MATERIAL SHALL BE FREE OF CINDERS, ROCKS, BOULDERS, NAILS, 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 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.

ONLY FIRE HYDRANTS CONFORMING TO THE CITY OF COLUMBUS STANDARDS WILL BE APPROVED FOR USE, EXCEPT THAT THE NOZZLE SHALL BE THREADED TO THE BARREL OF THE HYDRANT.

THE CONTRACTOR SHALL PAINT ALL FIRE HYDRANTS ACCORDING TO THE CITY OF DUBLIN STANDARDS WA-01. THE COST OF PAINTING FIRE HYDRANTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR FIRE HYDRANTS.

ALL WATER LINES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 801.14 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, WITH THE FOLLOWING EXCEPTION: **150 PSI OF PRESSURE SHALL BE MAINTAINED FOR AT LEAST TWO HOURS IN ANY TESTED SECTION. THE CITY MAY NOT APPROVE ANY TEST LASTING LESS THAN TWO HOURS REGARDLESS OF THE AMOUNT OF LEAKAGE**.

CITY OF COLUMBUS WATER DIVISION PERSONNEL ARE TO OPERATE ALL WATER VALVES.

WATER LINES SHALL BE DISINFECTED BY THE CITY OF COLUMBUS DIVISION OF WATER. REQUESTS FOR WATER LINE CHLORINATION SHALL BE MADE THROUGH THE CITY OF DUBLIN, DIVISION OF ENGINEERING. THE COST FOR CHLORINATION SHALL BE PAID FOR BY THE CONTRACTOR.

ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 801.15 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF A.W.W.A. C-651. WHEN THE WATER MAINS ARE READY FOR DISINFECTION, THE CITY OF DUBLIN SHALL SUBMIT A WRITTEN REQUEST FOR CHLORINATION OF THE MAINS THAT NEED DISINFECTED, THREE (3) SETS OF "AS BUILT" PLANS (FULL SIZE SHEETS ONLY), THE AS-BUILT SURVEY COORDINATES, WATER SERVICE REPORTS AND A PRESSURE TEST TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER MAINS CONSTRUCTED UNDER THIS PLAN.

STATIONS AND OFFSETS FOR THE LOCATION OF THE PROPOSED WATER MAIN ARE REFERENCED TO THE SURVEY BASELINE.

ALL BENDS, JOINT DEFLECTIONS AND FITTINGS SHALL BE BACKED WITH CONCRETE PER CITY OF COLUMBUS STANDARDS.

ALL WATER LINES SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY FROM SANITARY AND STORM SEWERS.

THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS, DIVISION OF WATER AT 614-645-7788 AND THE CITY OF DUBLIN, DIVISION OF ENGINEERING AT LEAST 24 HOURS BEFORE THE SHUT DOWN OF ANY WATER MAIN OR TAPPING INTO EXISTING WATER LINES.

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 HELD TO A MINIMUM AND SHALL BE APPROVED BY THE CITY ENGINEER.

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.

WATER LINES SHALL BE PLACED AT A MINIMUM DEPTH OF 4 FEET MEASURED FROM THE TOP OF FINISHED GRADE TO THE TOP OF THE WATER LINE. MAINTAIN EIGHTEEN (18) INCHES VERTICAL AND TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ANY SANITARY OR STORM SEWER PIPING AND ALL PROPOSED WATER MAINS.

ALL WATER LINE TRENCHES WITHIN RIGHT-OF-WAY SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL PER ITEM 304.02. THE COST SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 801 - DUCTILE IRON WATER PIPE AND FITTINGS.

GRANULAR BACKFILL AND BEDDING SHALL CONSIST OF NATURAL BROKEN OR CRUSHED ROCK. SYNTHETIC OR MAN-MADE MATERIALS ARE UNACCEPTABLE.

THE CONTRACTOR SHALL ADJUST ALL EXISTING VALVE BOXES TO FINAL GRADE IN BOTH PAVEMENT AND NON-PAVEMENT AREAS IN ACCORDANCE WITH ITEM 807.

ALL NEW AND EXISTING VALVES LOCATED WITHIN THE PROPOSED PAVEMENT AREA SHALL HAVE COLUMBUS STANDARD HEAVY DUTY VALVE BOXES IN ACCORDANCE WITH ITEM 807. EACH NEW OR REPLACEMENT HEAVY DUTY BOX WILL BE PAID FOR SEPARATELY AT THE PRICE BID PER EACH.

THE CONTRACTOR SHALL COORDINATE HIS WORK SUCH THAT NO WATER CUSTOMER WILL HAVE THEIR SERVICE DISRUPTED MORE THAN TWO (2) TIMES THROUGHOUT THE DURATION OF THIS PROJECT.

FOR ANY EMERGENCIES INVOLVING THE WATER DISTRIBUTION SYSTEM, PLEASE CONTACT THE DIVISION OF WATER DISTRIBUTION MAINTENANCE OFFICE AT 614-645-7788.

ALL BRASS FITTINGS ASSOCIATED WITH WATER WORK, INCLUDING REPAIRS TO THE EXISTING SYSTEM, SHALL CONFORM TO THE **REVISED ALLOWABLE LEAD EXTRACTION LIMIT PER THE UPDATED NSF/ANSI 61 STANDARD.** THE DIVISION OF WATER'S APPROVED MATERIALS LIST HAS BEEN UPDATED TO REFLECT THIS REQUIREMENT.

ALL WATER MAINS SHALL BE CLEANED AND FLUSHED, AND ANY WATER MAIN 12-INCH AND LARGER MUST BE PROPERLY PIGGED, IN ACCORDANCE WITH SECTION 801.13 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS.

HEAVY DUTY VALVE BOX

EXISTING OR PROPOSED VALVES LOCATED WITHIN EXISTING OR PROPOSED PAVEMENT, DRIVEWAY OR OTHER TRAVELED AREAS, SHALL BE PROVIDED WITH A HEAVY DUTY VALVE BOX IN ACCORDANCE WITH THE STANDARD DRAWINGS.

THE COST OF ALL HEAVY DUTY VALVE BOXES FOR PROPOSED VALVES SHALL BE INCLUDED WITHIN THE COST OF THE PROPOSED VALVE. NO SEPARATE PAYMENT SHALL BE MADE.

VALVE BOXES, WATER SERVICE BOXES AND OTHER SURFACE STRUCTURES

EXISTING WATER SERVICE BOXES TO REMAIN THAT ARE ENCOUNTERED WHEN CONSTRUCTING NEW DRIVEWAYS AND/OR SIDEWALKS SHALL BE CLEANED OUT, CENTERED OVER THE CURB STOP, AND ADJUSTED TO THE PROPOSED GRADE. ALL COSTS SHALL BE INCLUDED WITH THE BID PAYMENT FOR ITEM 807, SERVICE BOX ADJUSTED TO GRADE. NO SEPARATE PAYMENT SHALL BE MADE.

ALL VALVE BOXES, METER PIT COVERS, AND OTHER SURFACE UTILITY STRUCTURES THAT ARE TO REMAIN SHALL BE ADJUSTED TO GRADE WHERE NEW WALK, PAVERS, CURB, OR PAVEMENT IS CONSTRUCTED. PAYMENT SHALL BE INCLUDED WITHIN THE PERTINENT ADJUSTMENT TO GRADE BID ITEM.

HORIZONTAL/VERTICAL SEPARATION

THE REQUIRED HORIZONTAL CLEARANCE BETWEEN PRPOSED GRAVITY SEWERS AND EXISTING WATER LINES SHALL BE A MINIMUM OF 10 FEET (OUT-TO-OUT). ADDITIONALLY, THE VERTICAL CLEARANCE BETWEEN PROPOSED GRAVITY SEWERS AND EXISTING WATER LINES SHALL BE A MINIMUM OF 18 INCHES (OUT-TO-OUT). SHOULD THIS REQUIREMENT NOT BE FEASIBLE, UPON APPROVAL OF THE ENGINEER (DOW), PREMIUM PIPE MAY BE USED IN LIEU OF STANDARD SEWER PIPE. THE PREMIUM PIPE SHALL BE PRESSURE RATED (150 PSI) WATER WORKS GRADE PIPE MEETING AWWA STANDARDS. FURTHERMOE, THE PROPOSED PREMIUM PIPE SHALL BE PRESSURE TESTED IN ACCORDANCE WITH 801.14 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS TO ENSURE WATER TIGHTNESS.

ITEM 603, 18" PIPE WITH TYPE I BEDDING, AS PER PLAN

PIPE SHALL MEET THE REQUIREMENTS OF AWWA C900 PVC (150 PSI) PIPE.

ITEM SPECIAL - SURVEY COORDINATES

"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 500' 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 (NSRS2007) ADJUSTMENT, WITH FURTHER REFERENCE MADE TO THE OHIO STATE PLANE SOUTH 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 XXXXXXX.XX, ELEV. XXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT HORIZONTAL AND A TENTH OF A FOOT (0.10) OR LESS VERTICAL.

THE COORDINATES SHALL BE DOCUMENTED TO THE MUNICIPALITY ENGINEER OR DESIGNATED REPRESENTATIVE IN DIGITAL SPREADSHEET FORM AND SHALL INCLUDE THE APPLICABLE ITEM, STATION, NORTHING, EASTING, AND ELEVATION. COORDINATES SHALL BE SUBMITTED TO THE MUNICIPALITY ENGINEER OR DESIGNATED REPRESENTATIVE ON A BI-WEEKLY BASIS. COORDINATES SHALL ALSO BE REQUIRED TO BE SUBMITTED TO THE DIVISION OF POWER AND WATER AS PART OF THE REQUEST FOR CHLORINATION.

LUMP SUM PAYMENT IS FULL COMPENSATION FOR ALL WORK INVOLVED IN OBTAINING AND DOCUMENTING THE SURVEY COORDINATES AS DESCRIBED IN THIS SPECIFICATION.

ITEM 805 - 3/4" WATER SERVICE TAP, TRANSFERRED

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 805 - 3/4" WATER SERVICE TAP, TRANSFERRED 3 EACH

		AS-BUILT		
ITEM	STA.	NORTHING	EASTING	C/L ELEV.
SERVICE BOX ATG W/ HD BOX	41+36.45			
SERVICE BOX ATG W/ HD BOX	42+77.52			
SERVICE BOX ATG	44+08.65			
SERVICE BOX ATG	45+79.65			
SERVICE BOX ATG	47+61.69			
SERVICE BOX ATG	48+96.32			
SERVICE BOX ATG	51+54.44			
SERVICE BOX ATG	53+17.45			
SERVICE BOX ATG W/ HD BOX	72+38.89			
SERVICE BOX ATG W/ HD BOX	73+22.90			
SERVICE BOX ATG	82+85.31			
SERVICE BOX ATG	82+95.11			
SERVICE BOX ATG W/ HD BOX	84+09.69			
SERVICE BOX ATG	84+96.39			

CALCULATED CNK
CHECKED TJS

GENERAL NOTES

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\17360873\design\plan_set\rings to waterford\17360873gn01.dwg GENERAL NOTES Last Saved: May 29, 2015 3:52 PM, TSHKOLNIK Plotted: May 29, 2015 4:34 PM

ITEM 614 – MAINTAINING TRAFFIC, AS PER PLAN

ACCESS TO ALL ADJOINING PROPERTIES AS WELL AS ACCESS FOR MAIL, WATER, SANITARY SERVICE, AND EMERGENCY VEHICLES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

IN THE EVENT THAT IT BECOMES NECESSARY FOR THE CITY TO PERFORM WORK OF AN IMMEDIATE NATURE (SUCH AS THE PLACEMENT OF BARRICADES OR REPLACEMENT OF SIGNS AND OTHER WARNING OR PROTECTIVE DEVICES) BECAUSE OF FAILURE OR REFUSAL OF THE CONTRACTOR TO PERFORM SUCH WORK AS REQUIRED BY THE CONTRACT, THE CONTRACTOR SHALL REIMBURSE THE CITY AT A RATE OF 2.5 TIMES THE ACTUAL COST OF THE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM SUCH WORK. THE CITY SHALL BE REQUIRED TO NOTIFY OR ATTEMPT TO NOTIFY THE DESIGNATED REPRESENTATIVE OF THE CONTRACTOR OF THE NECESSITY TO PERFORM SUCH WORK. IF THE CONTRACTOR REFUSES OR FAILS WITHIN A REASONABLE TIME TO PERFORM OR CAUSE THE PERFORMANCE OF SUCH WORK, THE CITY SHALL BE REIMBURSED BY THE CONTRACTOR IN THE AMOUNT PROVIDED HEREIN BY WAY OF A DEDUCTION FROM THE CONTRACTOR'S NEXT PAYMENT UNDER THE CONTRACT. REASONABLE TIME FOR ALL STREETS INVOLVED ON THIS CONTRACT IS 2 HOURS FROM THE TIME OF NOTIFICATION BY THE CITY.

SIGNING FOR THE DUBLIN ROAD DETOUR ROUTE AS SHOWN ON SHEET 10 SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF WORK.

GRANDVIEW DRIVE, LONGVIEW DRIVE, AND MARION STREET SHALL BE CLOSED FOR CONSTRUCTION ONE AT A TIME, AND TRAFFIC SHALL BE DETOURED TO THE NEAREST INTERSECTION. AT LEAST TWO OF THESE ROADS SHALL BE OPEN AT ALL TIMES. ALL WORK ON EACH ROADWAY SHALL BE COMPLETED AND THE ROADWAY OPENED TO TRAFFIC WITHIN SEVEN (7) CALENDAR DAYS.

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, THEY MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, BY THE CITY ENGINEER.

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR, A.P.P.

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED IN THIS NOTE WILL NOT BE PERMITTED AT PROJECT COST UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE ENGINEER. LEOS SHOULD NOT BE USED WHERE THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) INTENDS FOR FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP–MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

A. FOR LANE CLOSURES: DURING INITIAL SET–UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

B. DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE BLOCKAGE OF TRAFFIC IS REQUIRED.

LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES. THE CONTRACTOR SHALL UTILIZE ANY OF THE FOLLOWING LAW ENFORCEMENT AGENCY(S): CITY OF DUBLIN, FRANKLIN COUNTY SHERIFF'S OFFICE, OR OHIO STATE HIGHWAY PATROL.

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON AN HOURLY BASIS UNDER ITEM 614 – LAW ENFORCEMENT OFFICE WITH PATROL CAR, AS PER PLAN. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR, A.P.P. 40 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW–UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED. ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF LEOS ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN.

TRENCH FOR WIDENING

THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

DROPOFFS IN WORKZONE

THE DROPOFF ADJACENT TO THE TRAVELED LANE SHALL BE NO GREATER THAN 1.5 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. THIS REQUIREMENT MAY BE MET BY TEMPORARILY PLACING SUBBASE AND BASE MATERIAL TO WITHIN 1.5 INCHES OF THE EXISTING GRADE ADJACENT TO THE TRAVELED LANE AND SLOPING THE MATERIAL AT 3:1 OR FLATTER WITHIN THE EXCAVATED AREA. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS DURING WORKING HOURS. THESE REQUIREMENTS SHALL BE MET AT NO ADDITIONAL COST.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 – WATER 10 M GAL.

DRUM REQUIREMENTS

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED.

COORDINATION WITH THE COLUMBUS PAVING THE WAY PROGRAM (PTWP)

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. WHEN DETOURS ARE PLANNED, THE NOTIFICATION SHALL BE AT THE PRECONSTRUCTION MEETING OR 30 DAYS IN ADVANCE ONCE CONSTRUCTION HAS BEGUN. LANE AND RAMP CLOSURES OF LESS THAN TWO WEEKS DURATION AND MORE THAN TWO DAYS SHALL BE REPORTED AT LEAST 3 WORKING DAYS IN ADVANCE. FOR SHORT–TERM LANE OR RAMP CLOSURES (2 DAYS OR LESS) NOTIFICATION SHALL BE MADE AT LEAST ONE DAY IN ADVANCE.

INFORMATION SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT TRAFFIC AT PRESENT AND IN THE NEXT 30 DAYS. THE REPORT SHALL BE OF A FORMAT APPROVED BY THE PROJECT ENGINEER OR ONE SUPPLIED BY THE PTWP. THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL WHO WILL BE RESPONSIBLE TO PREPARE THIS REPORT AT THE PRECONSTRUCTION MEETING. ANY UNFORESEEN IMPACT TO TRAFFIC SHALL BE REPORTED TO THE PROJECT ENGINEER AS SOON AS POSSIBLE.

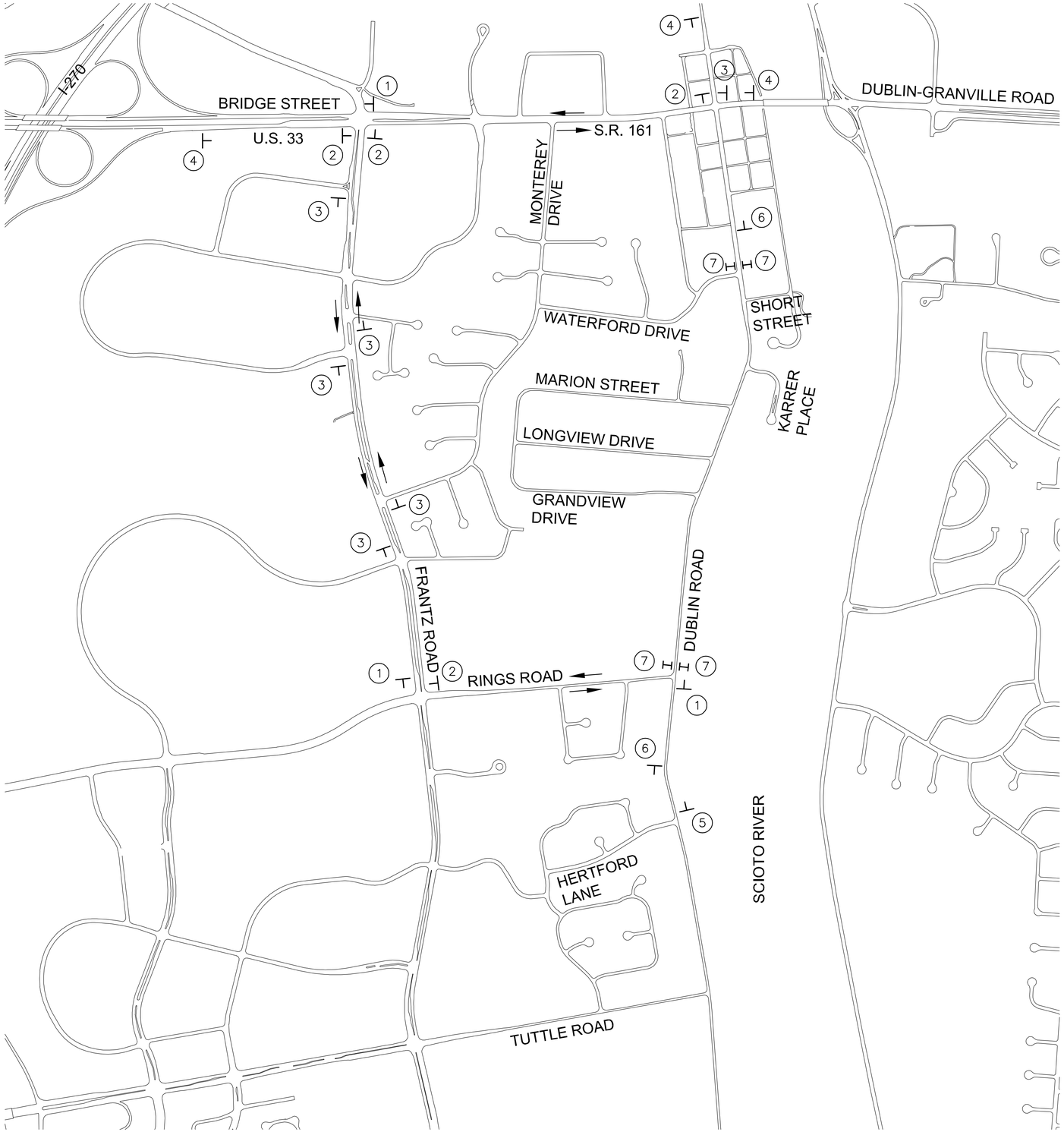
THE PROJECT ENGINEER SHALL PROVIDE THIS INFORMATION TO THE PTWP. ALL CONSTRUCTION ACTIVITIES THAT INTERFERE WITH TRAFFIC SHALL BE REPORTED TO THE PTWP. THIS INFORMATION SHALL BE PROVIDED TO THE PROGRAM COORDINATOR AT 614–645–3970, OR BY FAX AT 614–645–5844.

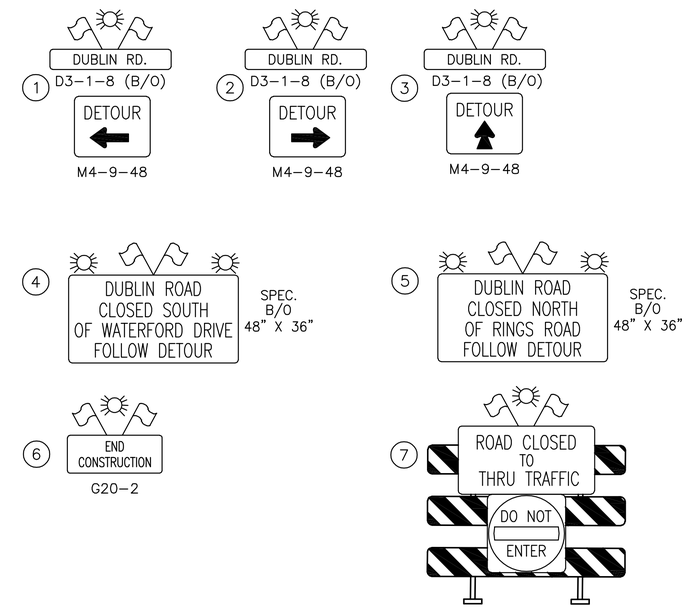
CALCULATED TJS
CHECKED CNK

MAINTENANCE OF TRAFFIC
GENERAL NOTES

DUBLIN ROAD SOUTH
MULTI-USE PATH CONSTRUCTED ON
THE WEST SIDE OF DUBLIN RD

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Maint of Traffic\173608736mtgn01.dwg MAINTENANCE OF TRAFFIC Last Saved: May 29, 2015 3:48 PM TSIHOLNIK Plotted: May 29, 2015 4:35 PM





LEGEND:

⊤ – SIGN ON POST

H – TYPE III BARRICADE

→ – DETOUR ROUTE

N

0 500 1000 SCALE IN FEET

CALCULATED TJS
CHECKED CNK

MAINTENANCE OF TRAFFIC
DETOUR MAP

DUBLIN ROAD SOUTH
MULTI-USE PATH

10
84

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ITEM	DESCRIPTION	TOTAL	UNIT
	GENERAL		
108.03	TYPE B CPM PROGRESS SCHEDULE	1	LUMP
614	MAINTAINING TRAFFIC, AS PER PLAN	1	LUMP
623	CONSTRUCTION LAYOUT STAKES	1	LUMP
624	MOBILIZATION	1	LUMP
SPEC	PROOF SURVEY	1	LUMP
	ROADWAY		
201	CLEARING & GRUBBING	1	LUMP
201	TREES OR STUMPS REMOVED, 18" SIZE	26	EA
201	TREES OR STUMPS REMOVED, 30" SIZE	5	EA
202	PAVEMENT REMOVED & DISPOSED OF	121	SY
202	WALK REMOVED & DISPOSED OF	58	SF
202	CURB & GUTTER REMOVED & DISPOSED OF	438	FT
202	GUARDRAIL REMOVED & DISPOSED OF	206	FT
202	PIPE REMOVED & DISPOSED OF	543	FT
202	CATCH BASIN REMOVED & DISPOSED OF	4	EA
202	MANHOLE REMOVED & DISPOSED OF	1	EA
202	HEADWALL REMOVED & DISPOSED OF	1	EA
202	STONE WALL REMOVED AND DISPOSED OF	1831	FT
203	EXCAVATION, A.P.P.	2548	CY
203	ROCK CUT EXCAVATION, A.P.P.	173	CY
203	EMBANKMENT, A.P.P.	1014	CY
203	SELECT GRANULAR EMBANKMENT, #2 STONE	130	CY
204	SUBGRADE COMPACTION	5221	SY
204	PROOF ROLLING	3	HR
653	TOPSOIL FURNISHED & PLACED, A.P.P.	378	CY
SPEC	MAILBOX RELOCATED	11	EA
SPEC	STONE WALL REMOVED AND SALVAGED	4	FT
SPEC	DRY-LAID STONE WALL, UP TO 18"	4	FT
SPEC	DRY-LAID STONE WALL, UP TO 18", AS PER PLAN	69	FT
SPEC	DRY-LAID STONE WALL, OVER 18" TO 36"	1309	FT
SPEC	DRY-LAID STONE WALL, OVER 36"	294	FT
SPEC	STONE COLUMN REMOVED AND DISPOSED OF	7	EA
SPEC	STONE COLUMN RELOCATED	2	EA
SPEC	DRY-LAID STONE COLUMN	7	EA
SPEC	STONE WALL REBUILT, A.P.P.	60	FT
SPEC	GRASS PAVERS, AS PER PLAN	601	SF
SPEC	STEEL-BACKED TIMBER GUARDRAIL	80	FT
	EROSION CONTROL		
207	FILTER FABRIC FENCE	2000	FT
601	ROCK CHANNEL PROTECTION, TYPE C W/ FABRIC FILTER	18	CY
601	ROCK CHANNEL PROTECTION, TYPE D W/ FILTER	8	CY
659	SEEDING & MULCHING, A.P.P.	4526	SY
SPEC	TREE PROTECTION FENCE	1512	FT

ITEM	DESCRIPTION	TOTAL	UNIT
	STORM DRAINAGE		
603	10" ADS SANITITE HP PIPE W/ 15"X10" SADDLE TEE	7	FT
603	12" ADS SANITITE HP PIPE	46	FT
603	12" ADS SANITITE HP PIPE W/ 12"X12" WATER TIGHT TEE	6	FT
603	18" ADS SANITITE HP PIPE	22	FT
603	18" PIPE, WITH TYPE 1 BEDDING, AS PER PLAN	80	FT
603	48" ADS SANITITE HP PIPE	63	FT
604	CATCH BASIN, AA-S125A	1	EA
604	CATCH BASIN, AA-S125B	6	EA
604	CATCH BASIN, AA-S133A	16	EA
604	CATCH BASIN, AA-S133B	1	EA
604*	MANHOLE, NO. 3 (6' DIAMETER)	1	EA
604	CONCRETE FLARED END SECTION	2	EA
605	4" PIPE UNDERDRAIN, 720.12	415	FT
613	LOW STRENGTH MORTAR BACKFILL, TYPE 2	22	CY
901	4" PIPE, WITH TYPE 1 BEDDING, 720.12	114	FT
901	12" PIPE, WITH TYPE 1 BEDDING, 706.02	742	FT
901	15" PIPE, CONCRETE ENCASED, 706.02	74	FT
901	15" PIPE, WITH TYPE 1 BEDDING, 706.02	145	FT
901	18" PIPE, WITH TYPE 1 BEDDING, 706.02	442	FT
901	36" PIPE, WITH TYPE 1 BEDDING, 706.02	23	FT
901	42" PIPE, WITH TYPE 1 BEDDING, 706.02, A.P.P.	10	FT
SPEC	PIPE CLEANOUT	770	FT
SPEC	12" INSERTA TEE	1	EA
SPEC	18" INSERTA TEE	1	EA
	SANITARY		
604	MANHOLE ADJUSTED TO GRADE (SANITARY)	4	EA
	PAVEMENT		
252	FULL DEPTH PAVEMENT SAWING	373	FT
301	ASPHALT CONCRETE BASE (ROADWAY)	322	TON
301	ASPHALT CONCRETE BASE (DRIVES)	135	TON
301	ASPHALT CONCRETE BASE (MULTI-USE PATH)	423	TON
304	AGGREGATE BASE (ROADWAY)	146	CY
304	AGGREGATE BASE (DRIVES)	223	CY
304	AGGREGATE BASE (MULTI-USE PATH)	470	CY
407	NTSS-1HM TRACKLESS TACK COAT	35	GAL
448	ASPHALT CONCRETE SURFACE COURSE, TYPE 1,	61	TON
	PG64-22, MEDIUM TRAFFIC (ROADWAY)		
448	ASPHALT CONCRETE SURFACE COURSE, TYPE 1,	83	TON
	PG64-22, MEDIUM TRAFFIC (DRIVES)		
448	ASPHALT CONCRETE SURFACE COURSE, TYPE 1,	188	TON
	PG64-22, MEDIUM TRAFFIC (MULTI-USE PATH)		
448	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2,	85	TON
	PG64-22, MEDIUM TRAFFIC (ROADWAY)		
451	6" REINFORCED CONCRETE PAVEMENT (IF AUTHORIZED)	165	SY
452	6" NON-REINFORCED CONCRETE	310	SY
608	4" CONCRETE WALK, WITH #57 STONE, A.P.P.	850	SF
608	CURB RAMP	7	EA
608	CONCRETE STEPS, WITH #57 STONE, A.P.P.	6	FT
609	COMBINATION CURB & GUTTER, A.P.P.	417	FT
SPEC	DETECTABLE WARNING, A.P.P.	14	EA
SPEC	BRICK WALK, A.P.P.	2549	SF
SPEC	4" STAMPED CONCRETE WALK (IF AUTHORIZED)	72	SF

ITEM	DESCRIPTION	TOTAL	UNIT
	WATER		
805	3/4" WATER SERVICE TAP, TRANSFERRED	3	EA
807	SERVICE BOXES ADJUSTED TO GRADE	11	EA
807	COLUMBUS STANDARD HEAVY DUTY VALVE BOX	3	EA
SPEC	SURVEY COORDINATES	1	LUMP
SPEC	2" SLEEVE, 720.08, SCHEDULE 80	170	LF
	TRAFFIC CONTROL		
630	REMOVAL OF GROUND MOUNTED SIGN & DISPOSAL	17	EA
630	REMOVAL OF GROUND MOUNTED POST SUPPORT & DISPOSAL	8	EA
630†	GROUND MOUNTED SUPPORT POST, NO. 2 POST, TYPE S, A.P.P.	52	FT
630†	GROUND MOUNTED SUPPORT POST, NO. 3 POST, TYPE S, A.P.P.	41	FT
630†	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	10	EA
630†	2-1/4" SQUARE ANCHOR POST, A.P.P.	7	EA
630†	SIGN, FLAT SHEET	32	SF
630†	SIGN, DOUBLE FACED, STREET NAME	10	EA
644	STOP LINE, 24"	53	FT
644	CROSSWALK LINE, 12"	275	FT
	STRUCTURES		
202	PORTIONS OF STRUCTURES REMOVED	1	LUMP
503	COFFERDAMS AND EXCAVATION BRACING	1	LUMP
503	UNCLASSIFIED EXCAVATION	1	LUMP
511	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, A.P.P.	91	CY
518	POROUS BACKFILL WITH FILTER FABRIC	6	CY
564	SEALING OF CONCRETE SURFACES	62	SY
SPEC	RAILING (42" HIGH METAL RAILING)	57	LF
SPEC	STRUCTURE, MISC.: 20' PRE-ENGINEERED TRUSS PEDESTRIAN BRIDGE (COSGRAY CREEK)	1	LUMP
SPEC	STRUCTURE, MISC.: 20' PRE-ENGINEERED TRUSS PEDESTRIAN BRIDGE (MONTEREY CREEK)	1	LUMP
SPEC	MANUFACTURED STONE	150	SF
SPEC	POLYURETHANE CAULKING FOR STONE VENEER	90	LF
	MAINTENANCE OF TRAFFIC		
614	LAW ENFORCEMENT OFFICER, WITH PATROL CAR, A.P.P.	40	HR
616	WATER	10	M GAL
	ALTERNATE BID		
614	MAINTAINING TRAFFIC, AS PER PLAN	1	LUMP

† PERFORMED BY CITY OF DUBLIN

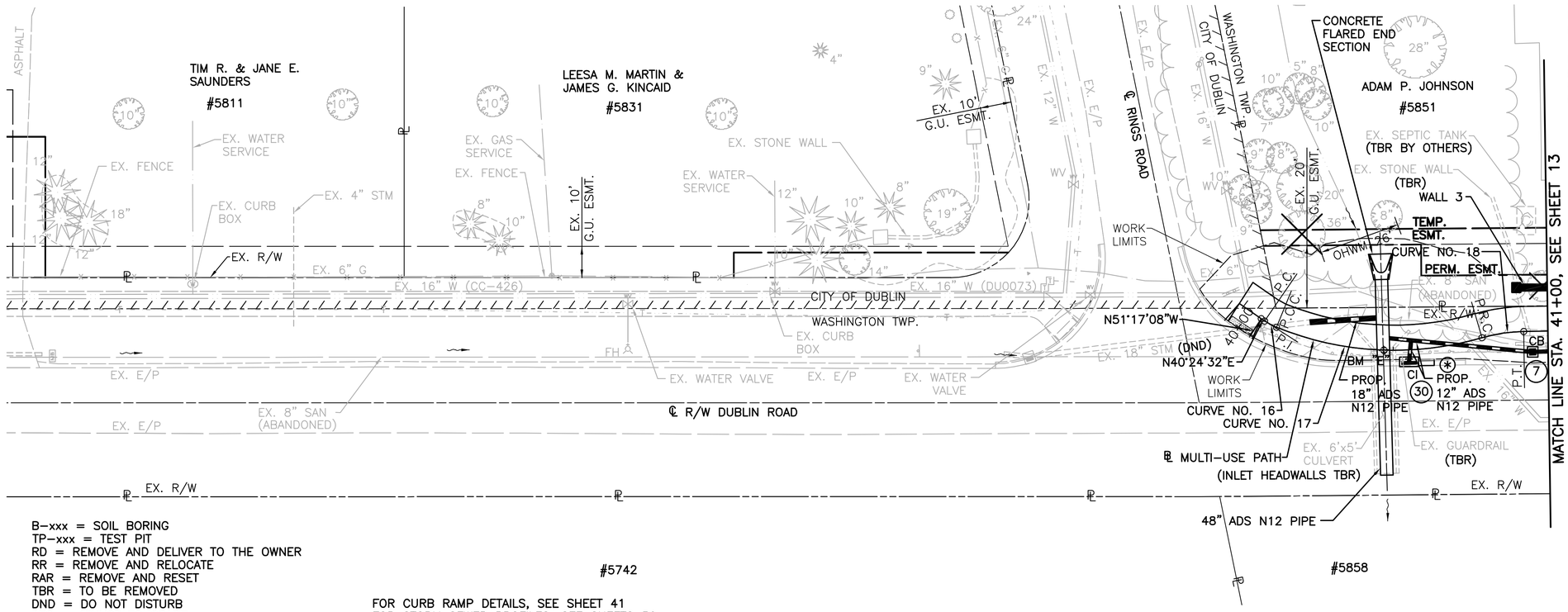
FOR BIDDING PURPOSES:
* DENOTES OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (2010 EDITION). ALL OTHER ITEMS REFERENCE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (2012 EDITION).

CALCULATED CNK
CHECKED TJS

GENERAL SUMMARY

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\173608736gs01.dwg GENERAL SUMMARY Last Saved: Jun 01, 2015 9:26 AM AMCDANIEL Plotted: Jun 01, 2015 9:29 AM



CURVE DATA
CURVE NO. 16
P.I. STA. 40+09.56
Δ = 12°24'07" LT.
Dc = 286°28'44"
R = 20.00'
T = 2.17'
L = 4.33'
E = 0.12'
P.C. STA. 40+07.39
P.C.C. STA. 40+11.72

CURVE DATA
CURVE NO. 17
P.I. STA. 40+46.52
Δ = 38°22'51" LT.
Dc = 57°17'45"
R = 100.00'
T = 34.81'
L = 66.99'
E = 5.88'
P.C.C. STA. 40+11.72
P.R.C. STA. 40+78.71

CURVE DATA
CURVE NO. 18
P.I. STA. 40+85.50
Δ = 15°29'14" RT.
Dc = 114°35'30"
R = 50.00'
T = 6.80'
L = 13.52'
E = 0.46'
P.R.C. STA. 40+78.71
P.T. STA. 40+92.22

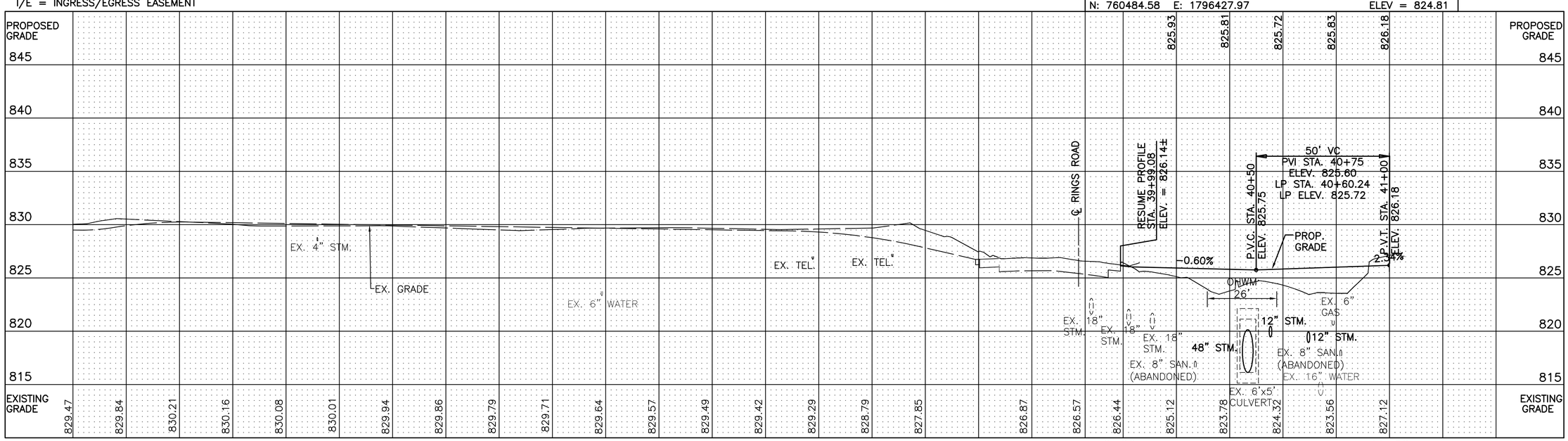
B-xxx = SOIL BORING
TP-xxx = TEST PIT
RD = REMOVE AND DELIVER TO THE OWNER
RR = REMOVE AND RELOCATE
RAR = REMOVE AND RESET
TBR = TO BE REMOVED
DND = DO NOT DISTURB
ATG = ADJUST TO GRADE
* = PER RECORD PLAN, CONTRACTOR TO LOCATE
OHWM = ORDINARY HIGH WATER MARK
G.U. ESMT = GENERAL UTILITY EASEMENT
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT

FOR CURB RAMP DETAILS, SEE SHEET 41
FOR STORM SEWER PROFILES, SEE SHEETS 50
FOR CULVERT DETAIL, SEE SHEETS 54
FOR GRADING PLAN, SEE SHEET 55
FOR TREE PRESERVATION PLAN, SEE SHEET 61
FOR TRAFFIC CONTROL PLAN, SEE SHEET 66

(*) REMOVE AND REPLACE CURB & GUTTER FROM CURB INLET TO END OF FULL-HEIGHT CURB.

– PLANING AND OVERLAY
– RELOCATED STONE WALL

BM "E": FRANKLIN COUNTY ENGINEER BM R-3, BRASS PLUG ON THE CENTER OF THE WEST HEADWALL OF CULVERT "WAS-10-10.21", JUST NORTH OF RINGS ROAD, BEING 16 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 760484.58 E: 1796427.97 ELEV = 824.81



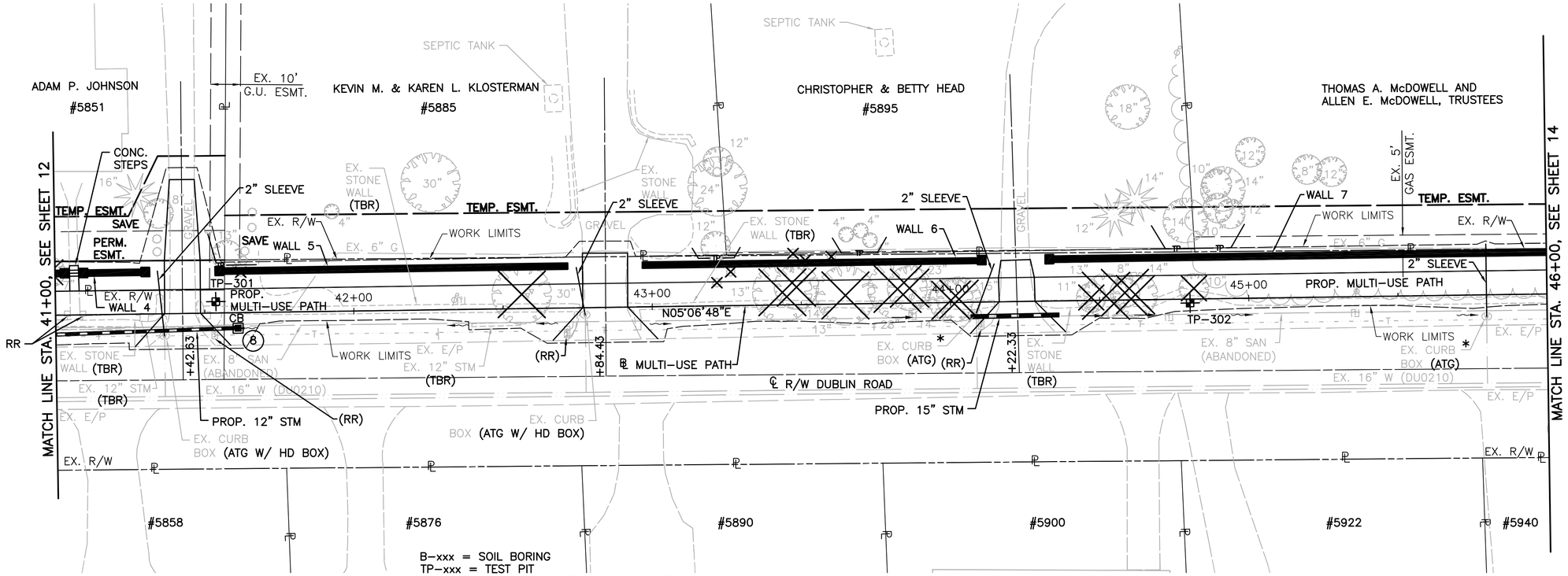
SCALE IN FEET 0 20 40

CALCULATED CNK
CHECKED TJS

PLAN AND PROFILE
STA. 29+00 TO STA. 41+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

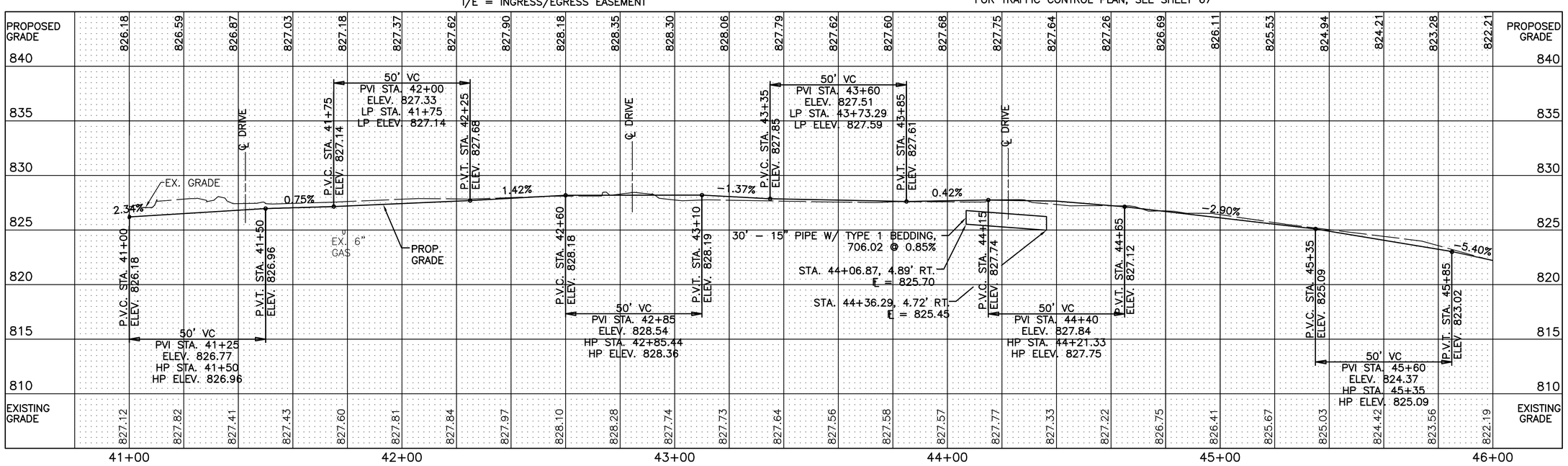
MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp06.dwg PLAN AND PROFILE Last Saved: May 29, 2015 3:56 PM Plotted: May 29, 2015 4:35 PM



B–xxx = SOIL BORING
TP–xxx = TEST PIT
RD = REMOVE AND DELIVER TO THE OWNER
RR = REMOVE AND RELOCATE
RAR = REMOVE AND RESET
TBR = TO BE REMOVED
DND = DO NOT DISTURB
ATG = ADJUST TO GRADE
* = PER RECORD PLAN, CONTRACTOR TO LOCATE
OHWM = ORDINARY HIGH WATER MARK
G.U. ESMT = GENERAL UTILITY EASEMENT
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT

FOR DRIVEWAY DETAILS, SEE SHEETS 42–43
FOR STORM SEWER PROFILES, SEE SHEET 50
FOR GRADING PLAN, SEE SHEET 56
FOR TREE PRESERVATION PLAN, SEE SHEET 62
FOR TRAFFIC CONTROL PLAN, SEE SHEET 67

—TP— – TREE PROTECTION FENCE
▬ – RELOCATED STONE WALL



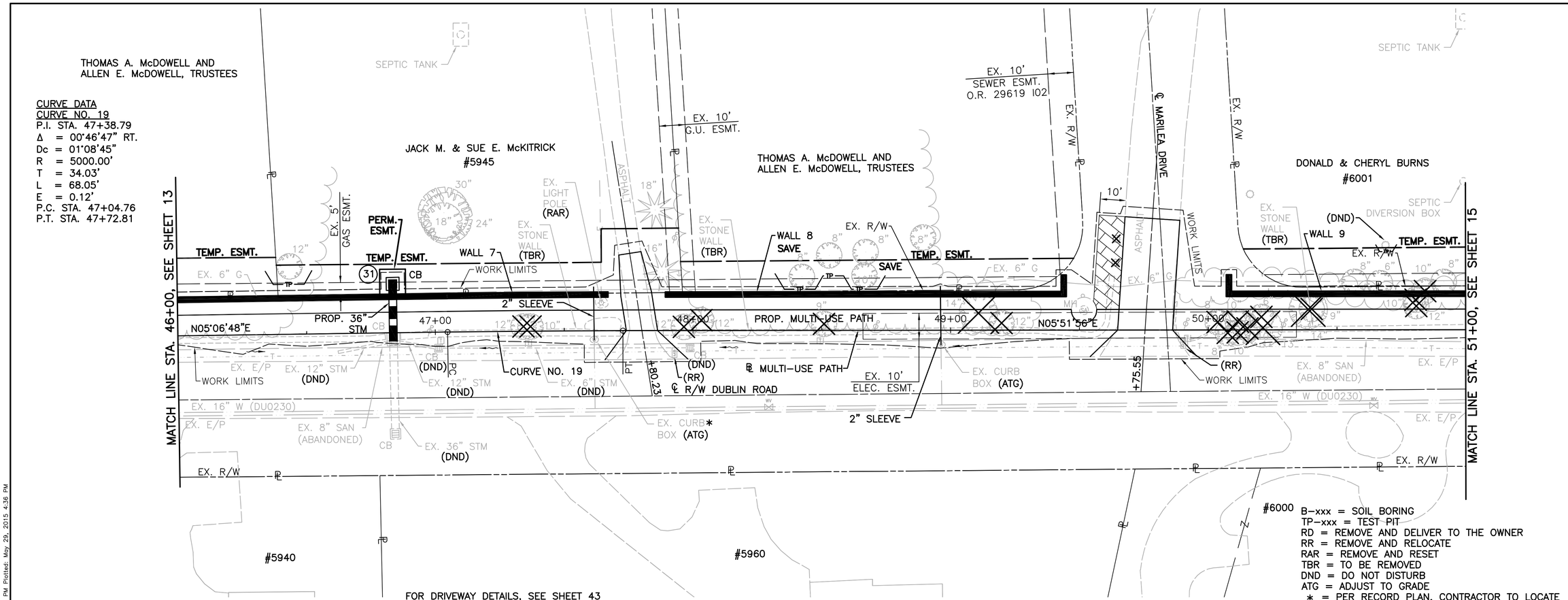
CALCULATED CNK
CHECKED TJS

SCALE IN FEET 0 20 40

PLAN AND PROFILE
STA. 41+00 TO STA. 46+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp07.dwg PLAN AND PROFILE Last Saved: Dec 02, 2014 3:01 PM Plotted: May 29, 2015 4:35 PM

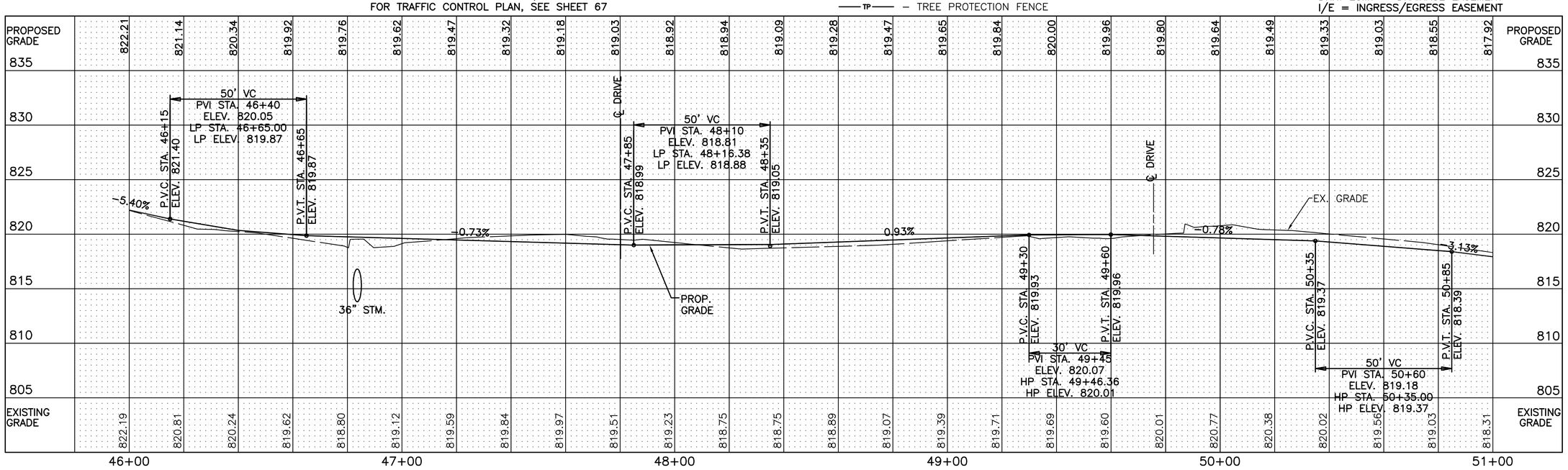


CURVE DATA
CURVE NO. 19
P.I. STA. 47+38.79
Δ = 00°46'47" RT.
Dc = 01°08'45"
R = 5000.00'
T = 34.03'
L = 68.05'
E = 0.12'
P.C. STA. 47+04.76
P.T. STA. 47+72.81

FOR DRIVEWAY DETAILS, SEE SHEET 43
FOR STORM SEWER PROFILES, SEE SHEET 50
FOR GRADING PLAN, SEE SHEET 56
FOR TREE PRESERVATION PLAN, SEE SHEET 62
FOR TRAFFIC CONTROL PLAN, SEE SHEET 67

– GRASS PAVERS, AS PER PLAN
– RELOCATED STONE WALL
TP – TREE PROTECTION FENCE

B–xxx = SOIL BORING
TP–xxx = TEST PIT
RD = REMOVE AND DELIVER TO THE OWNER
RR = REMOVE AND RELOCATE
RAR = REMOVE AND RESET
TBR = TO BE REMOVED
DND = DO NOT DISTURB
ATG = ADJUST TO GRADE
* = PER RECORD PLAN, CONTRACTOR TO LOCATE
OHWM = ORDINARY HIGH WATER MARK
G.U. ESMT = GENERAL UTILITY EASEMENT
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT



CALCULATED CNK
CHECKED TJS

SCALE IN FEET 0 20 40

PLAN AND PROFILE
STA. 46+00 TO STA. 51+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp08.dwg PLAN AND PROFILE Last Saved: Dec 02, 2014 3:05 PM Plotted: May 29, 2015 4:36 PM

CURVE DATA
CURVE NO. 20
P.I. STA. 53+74.22
Δ = 15°15'57" RT.
Dc = 07°38'22"
R = 750.00'
T = 100.51'
L = 199.83'
E = 6.70'
P.C. STA. 52+73.71
P.C.C. STA. 54+73.54

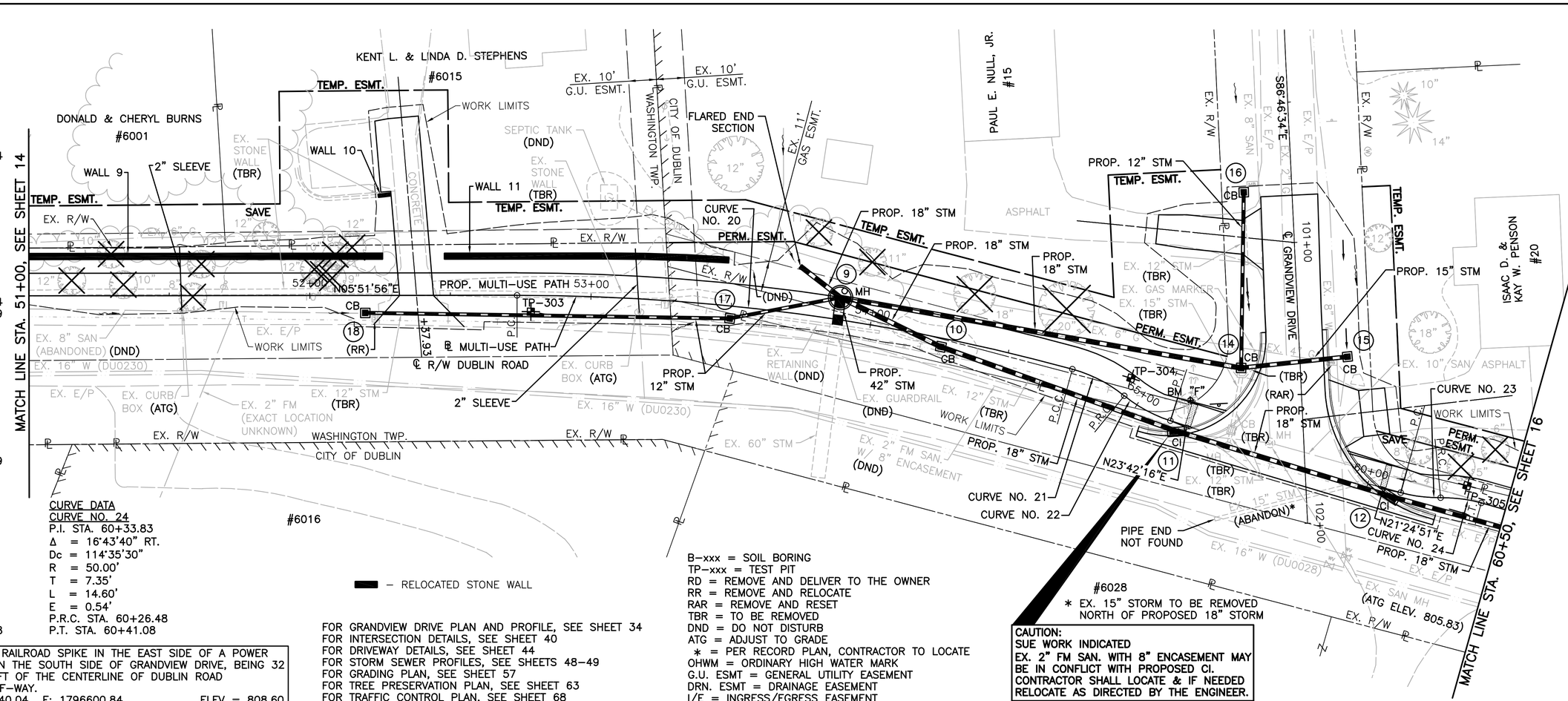
CURVE DATA
CURVE NO. 21
P.I. STA. 54+84.17
Δ = 24°00'15" RT.
Dc = 114°35'30"
R = 50.00'
T = 10.63'
L = 20.95'
E = 1.12'
P.C.C. STA. 54+73.54
P.R.C. STA. 54+94.49

CURVE DATA
CURVE NO. 22
P.I. STA. 55+03.95
Δ = 21°25'52" LT.
Dc = 114°35'30"
R = 50.00'
T = 9.46'
L = 18.70'
E = 0.89'
P.R.C. STA. 54+94.49
P.T. STA. 55+13.19

CURVE DATA
CURVE NO. 23
P.I. STA. 60+19.32
Δ = 16°31'49" LT.
Dc = 114°35'30"
R = 50.00'
T = 7.26'
L = 14.43'
E = 0.52'
P.C. STA. 60+12.06
P.R.C. STA. 60+26.48

CURVE DATA
CURVE NO. 24
P.I. STA. 60+33.83
Δ = 16°43'40" RT.
Dc = 114°35'30"
R = 50.00'
T = 7.35'
L = 14.60'
E = 0.54'
P.R.C. STA. 60+26.48
P.T. STA. 60+41.08

BM "F": RAILROAD SPIKE IN THE EAST SIDE OF A POWER POLE, ON THE SOUTH SIDE OF GRANDVIEW DRIVE, BEING 32 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 761940.04 E: 1796600.84 ELEV = 808.60



B-xxx = SOIL BORING
TP-xxx = TEST PIT
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RAR = REMOVE AND RESET
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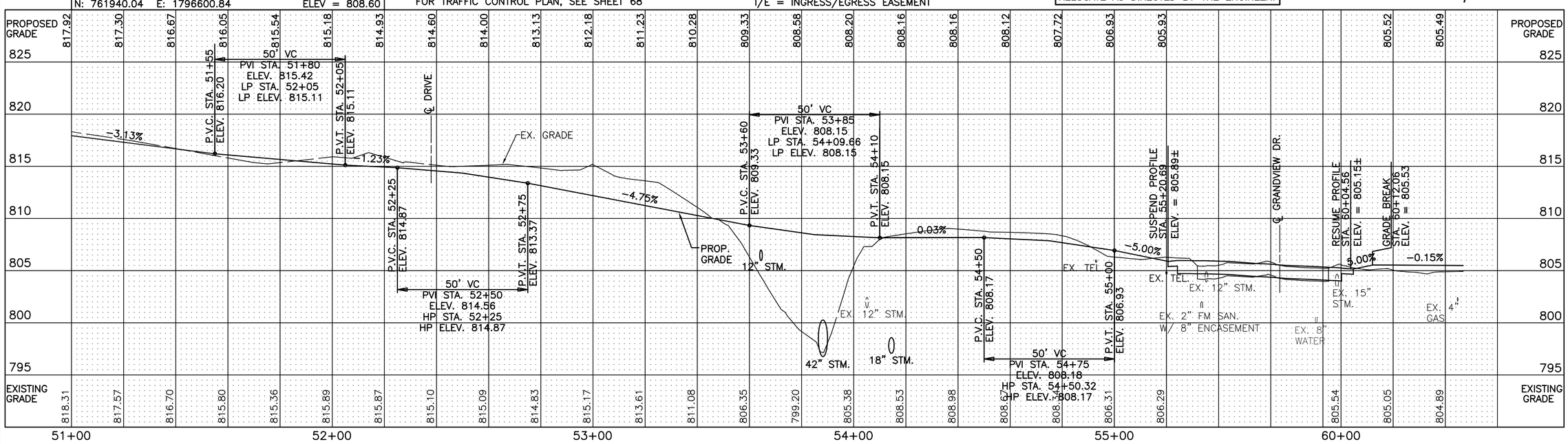
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT

▬ – RELOCATED STONE WALL

FOR GRANDVIEW DRIVE PLAN AND PROFILE, SEE SHEET 34
FOR INTERSECTION DETAILS, SEE SHEET 40
FOR DRIVEWAY DETAILS, SEE SHEET 44
FOR STORM SEWER PROFILES, SEE SHEETS 48-49
FOR GRADING PLAN, SEE SHEET 57
FOR TREE PRESERVATION PLAN, SEE SHEET 63
FOR TRAFFIC CONTROL PLAN, SEE SHEET 68

* EX. 15" STORM TO BE REMOVED NORTH OF PROPOSED 18" STORM

CAUTION:
SUE WORK INDICATED
EX. 2" FM SAN. WITH 8" ENCASEMENT MAY BE IN CONFLICT WITH PROPOSED CI. CONTRACTOR SHALL LOCATE & IF NEEDED RELOCATE AS DIRECTED BY THE ENGINEER.



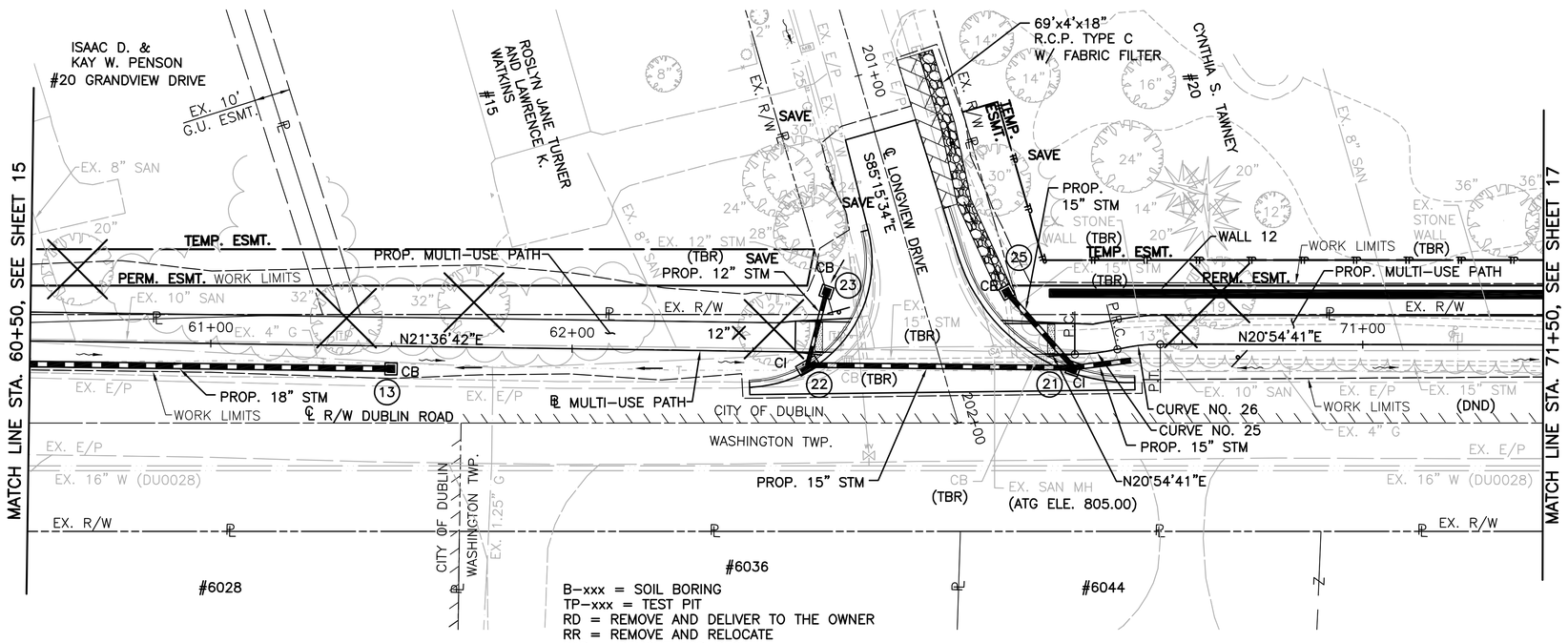
CALCULATED CNK
CHECKED TJS

SCALE IN FEET 0 20 40

PLAN AND PROFILE
STA. 51+00 TO STA. 60+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp09.dwg PLAN AND PROFILE Last Saved: Dec 02, 2014 3:32 PM Plotted: May 29, 2015 4:36 PM



B–xxx = SOIL BORING
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RR = REMOVE AND RELOCATE
RAR = REMOVE AND RESET
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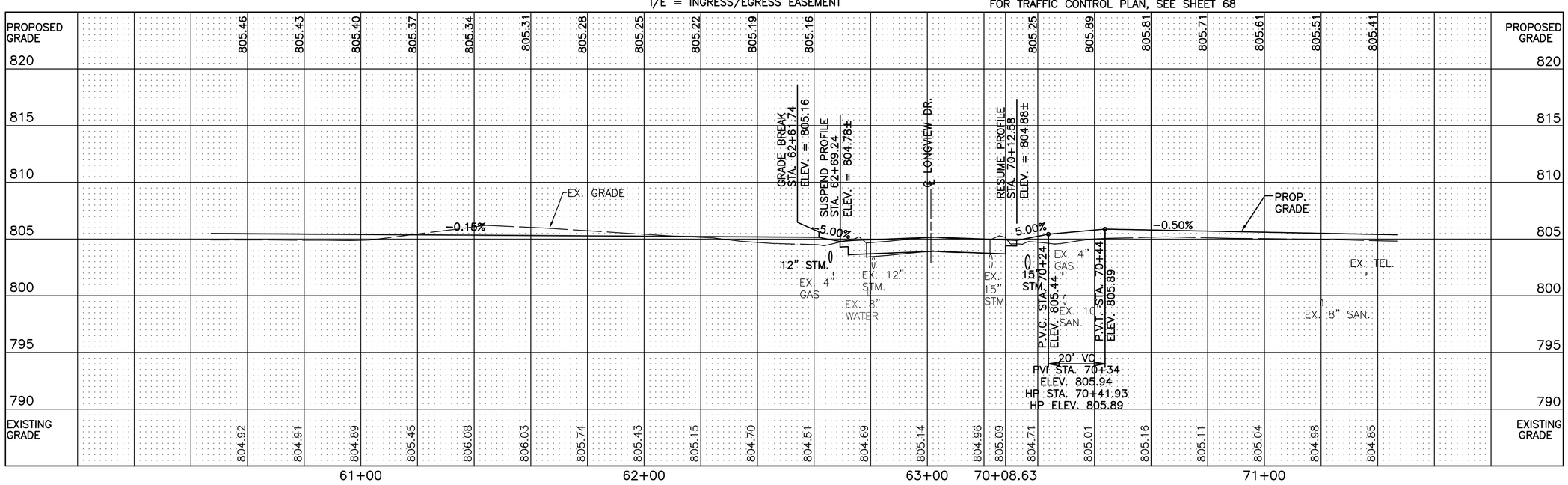
G.U. ESMT = GENERAL UTILITY EASEMENT
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT

FOR LONGVIEW DRIVE PLAN AND PROFILE, SEE SHEET 36
FOR INTERSECTION DETAILS, SEE SHEET 40
FOR STORM SEWER PROFILES, SEE SHEETS 48–49
FOR GRADING PLAN, SEE SHEET 57
FOR TREE PRESERVATION PLAN, SEE SHEET 63
FOR TRAFFIC CONTROL PLAN, SEE SHEET 68

– GRASS PAVERS, AS PER PLAN
– TREE PROTECTION FENCE
– RELOCATED STONE WALL

CURVE DATA
CURVE NO. 25
P.I. STA. 70+26.08
Δ = 13°41'53" LT.
Dc = 114°35'30"
R = 50.00'
T = 6.01'
L = 11.95'
E = 0.36'
P.C. STA. 70+20.08
P.R.C. STA. 70+32.03

CURVE DATA
CURVE NO. 26
P.I. STA. 70+38.04
Δ = 13°41'53" RT.
Dc = 114°35'30"
R = 50.00'
T = 6.01'
L = 11.95'
E = 0.36'
P.R.C. STA. 70+32.03
P.T. STA. 70+43.98



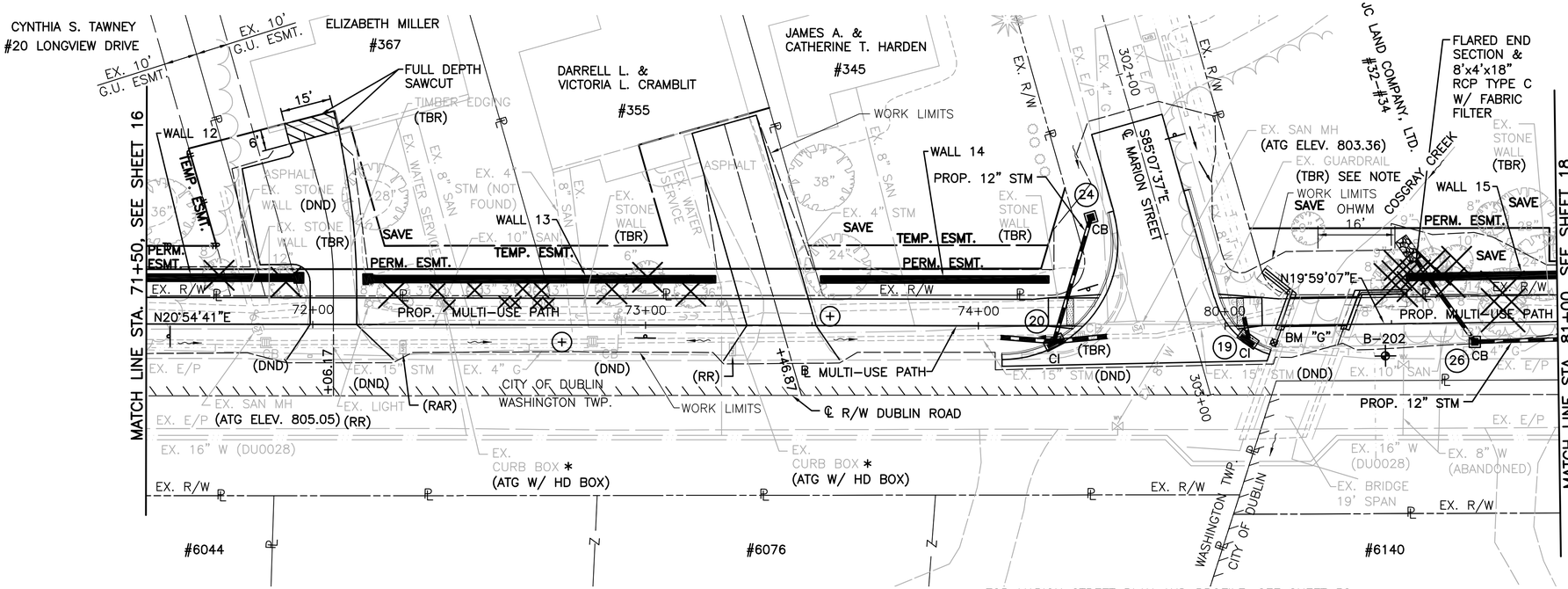
SCALE IN FEET 0 20 40

CALCULATED CNK
CHECKED TJS

PLAN AND PROFILE
STA. 60+50 TO STA. 71+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp10.dwg PLAN AND PROFILE Last Saved: May 29, 2015 4:02 PM Plotted: May 29, 2015 4:36 PM



NOTE: REMOVE GUARDRAIL ALONG MARION STREET RADIUS RETURN TO LIMITS OF EX. BRIDGE ON DUBLIN ROAD, AND PLACE A FLARED END SECTION ON SOUTH END OF REMAINING GUARDRAIL.

– ITEM 452, 6" NON-REINFORCED CONCRETE

B-xxx = SOIL BORING
TP-xxx = TEST PIT
RD = REMOVE AND DELIVER TO THE OWNER
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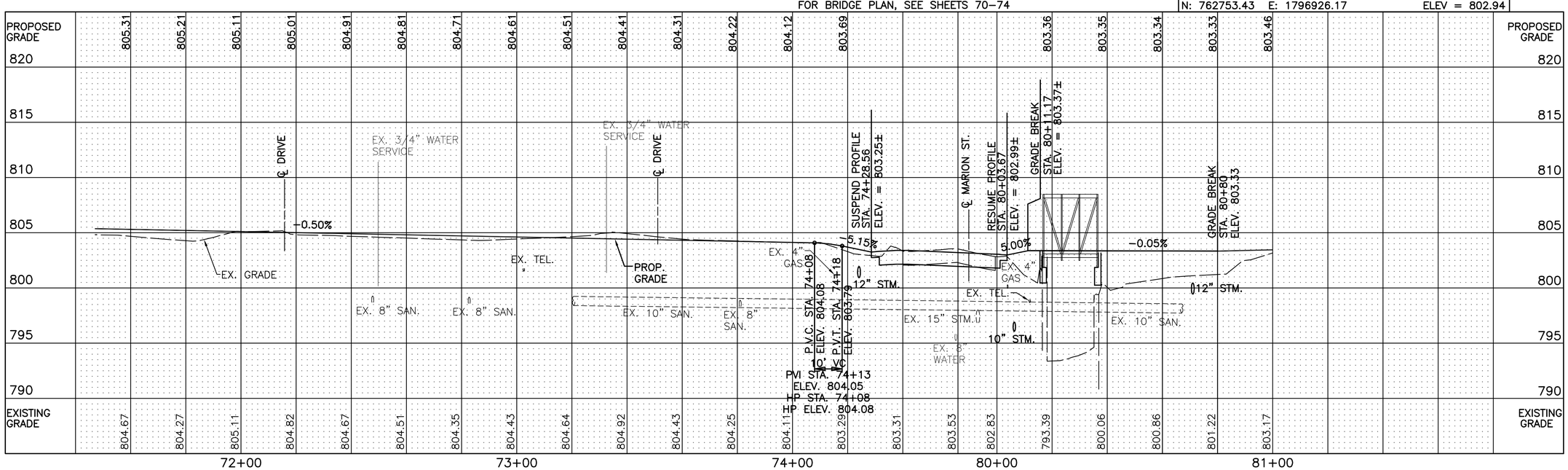
G.U. ESMT = GENERAL UTILITY EASEMENT
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT
TP – TREE PROTECTION FENCE
– RELOCATED STONE WALL

NOTE: THE PROPOSED DRIVE AT 355 DUBLIN ROAD SHALL BE COMPLETE AND IN PLACE WITHIN 21 DAYS OF EXISTING DRIVE REMOVAL.

(+) – CONNECT EXISTING DOWNSPOUTS TO EXISTING STORM SEWER

FOR MARION STREET PLAN AND PROFILE, SEE SHEET 38
FOR INTERSECTION DETAILS, SEE SHEET 41
FOR DRIVEWAY DETAILS, SEE SHEETS 44–45
FOR STORM SEWER PROFILES, SEE SHEETS 49–50
FOR GRADING PLAN, SEE SHEET 58
FOR TREE PRESERVATION PLAN, SEE SHEET 64
FOR TRAFFIC CONTROL PLAN, SEE SHEET 69
FOR BRIDGE PLAN, SEE SHEETS 70–74

BM "G": CHISELED SQUARE ON THE SOUTHWEST WINGWALL OF A CULVERT ON THE NORTH SIDE OF MARION STREET, BEING 16 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 762753.43 E: 1796926.17 ELEV = 802.94



CALCULATED CNK
CHECKED TJS

SCALE IN FEET 0 20 40

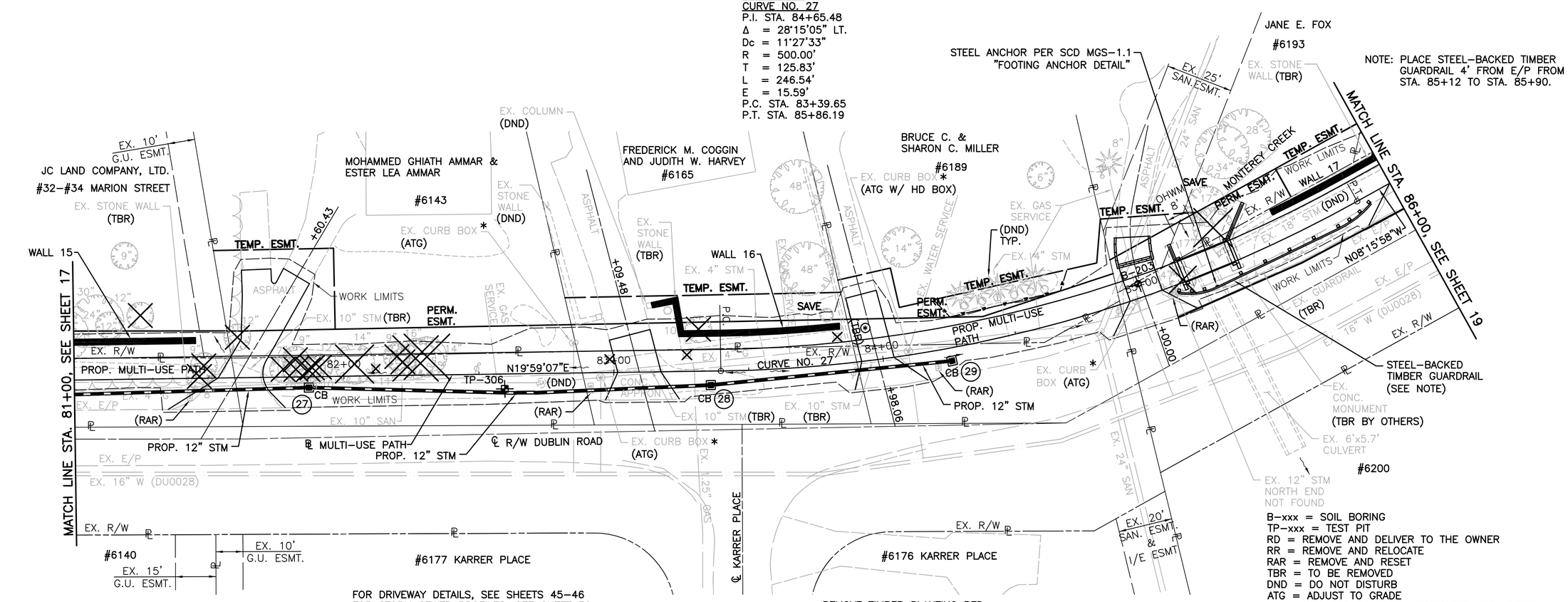
PLAN AND PROFILE
STA. 71+50 TO STA. 81+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

SHKOLNIK, TODD U:\173608736\design\plan_set\Rings to Waterford\Plan Prof\173608736pp11.dwg PLAN AND PROFILE Last Saved: Jun 02, 2015 8:32 AM Plotted: Jun 02, 2015 8:34 AM

CURVE DATA
CURVE NO. 27
P.I. STA. 84+65.48
Δ = 28°15'05" LT.
Dc = 11°27'33"
R = 500.00'
T = 125.83'
L = 246.54'
E = 15.59'
P.C. STA. 83+39.65
P.T. STA. 85+86.19

NOTE: PLACE STEEL-BACKED TIMBER GUARDRAIL 4' FROM E/P FROM STA. 85+12 TO STA. 85+90.



FOR DRIVEWAY DETAILS, SEE SHEETS 45-46
FOR STORM SEWER PROFILES, SEE SHEET 50
FOR GRADING PLAN, SEE SHEET 58
FOR TREE PRESERVATION PLAN, SEE SHEET 64
FOR TRAFFIC CONTROL PLAN, SEE SHEET 69
FOR BRIDGE PLAN, SEE SHEETS 75-79

⊛ – REMOVE TIMBER PLANTING BED FROM CENTER OF RELOCATED WALL TO ROADSIDE END.

▬ – RELOCATED STONE WALL

B-xxx = SOIL BORING
TP-xxx = TEST PIT
RD = REMOVE AND DELIVER TO THE OWNER
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RAR = REMOVE AND RESET
TBR = TO BE REMOVED
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DRN. ESMT = DRAINAGE EASEMENT
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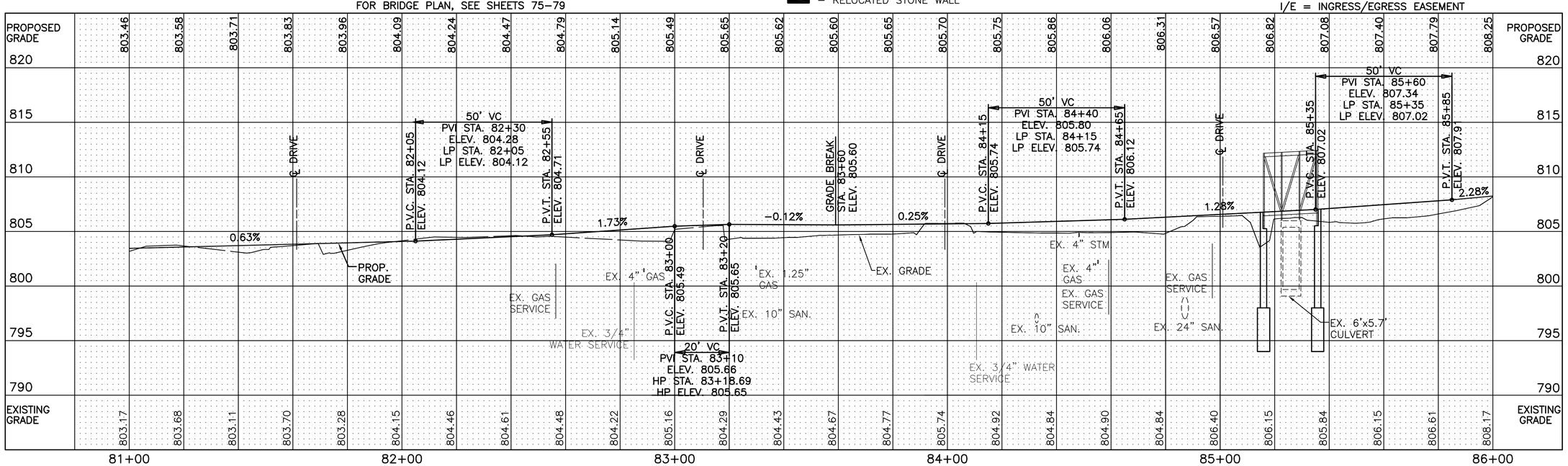


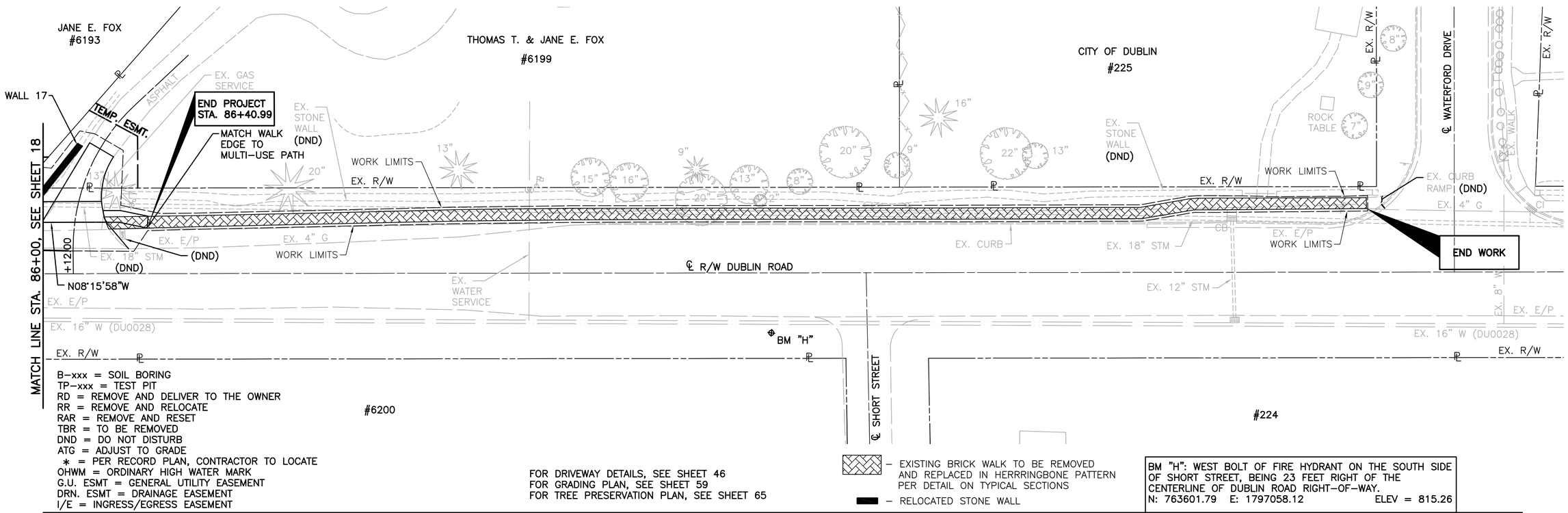
PLAN AND PROFILE
STA. 81+00 TO STA. 86+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

SCALE IN FEET 0 20 40

CALCULATED CNK
CHECKED TJS

MCDANIEL, ARRON \u\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp12.dwg PLAN AND PROFILE Last Saved: Dec 02, 2014 5:29 PM Plotted: May 29, 2015 4:37 PM



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RAR = REMOVE AND RESET
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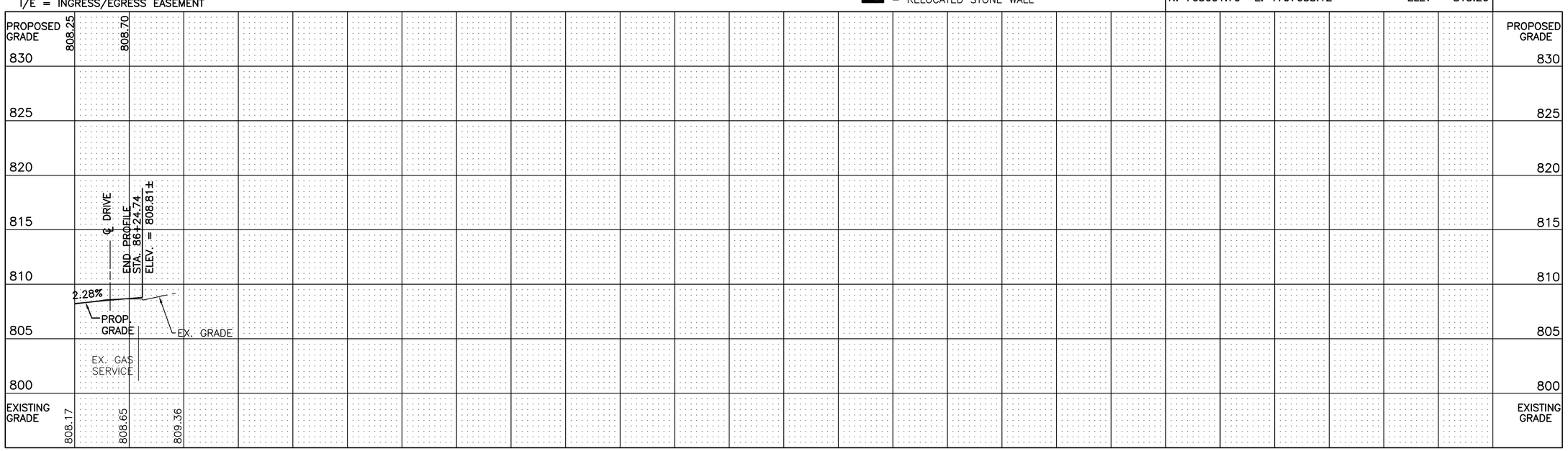
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT

FOR DRIVEWAY DETAILS, SEE SHEET 46
FOR GRADING PLAN, SEE SHEET 59
FOR TREE PRESERVATION PLAN, SEE SHEET 65

– EXISTING BRICK WALK TO BE REMOVED AND REPLACED IN HERRRINGBONE PATTERN PER DETAIL ON TYPICAL SECTIONS
– RELOCATED STONE WALL

BM "H": WEST BOLT OF FIRE HYDRANT ON THE SOUTH SIDE OF SHORT STREET, BEING 23 FEET RIGHT OF THE CENTERLINE OF DUBLIN ROAD RIGHT–OF–WAY.
N: 763601.79 E: 1797058.12 ELEV = 815.26



SCALE IN FEET 0 20 40

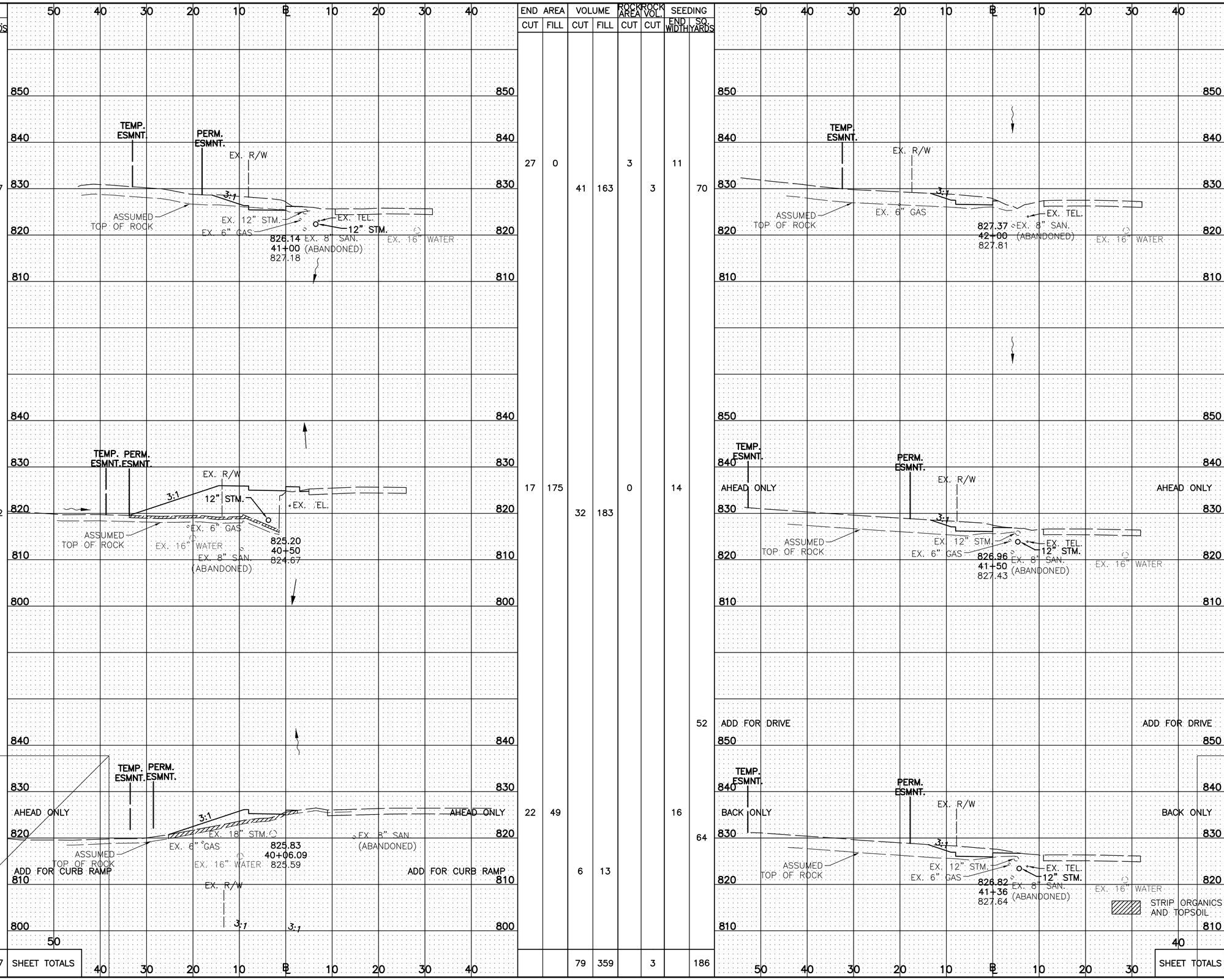
CALCULATED CNK
CHECKED TJS

PLAN AND PROFILE
STA. 86+00 AHEAD

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp13.dwg PLAN AND PROFILE Last Saved: Dec 02, 2014 5:51 PM Plotted: May 29, 2015 4:37 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT
16	137	27	0	41	163	3	3	11	70	19	0	36	0		
33	142	17	175	32	183	0		14		19	0			0	
									52			23	0		15
25	18	22	49	6	13			16	64	23	0	34	0	0	2
	297			79	359		3		186			93	0		17



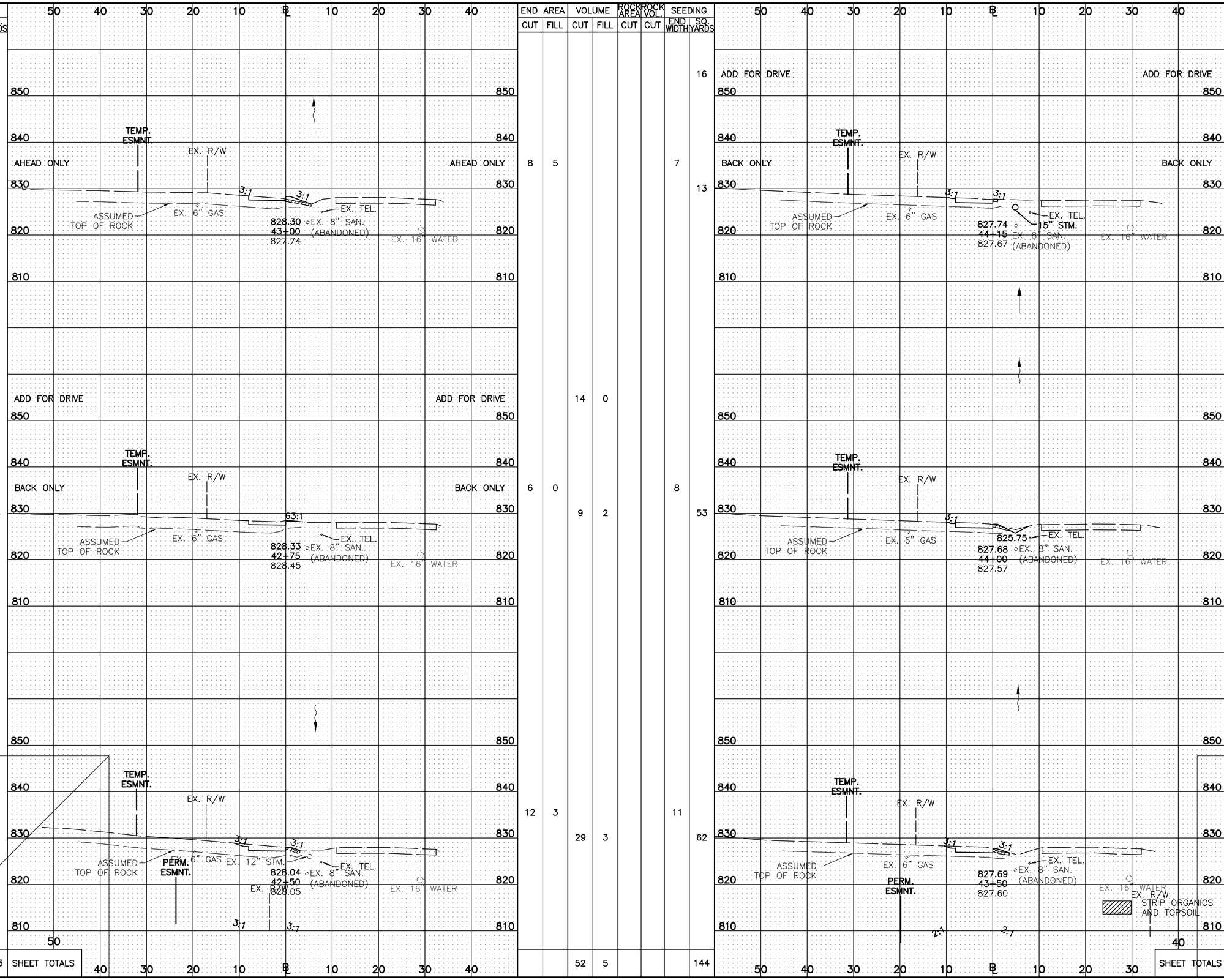
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - RINGS ROAD TO GRANDVIEW DRIVE
STA. 40+11.13 TO STA. 42+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Rings to Grandview.dwg LAST SAVED: 10/21/2014 9:48 AM LAST PLOTTED: 5/29/2015 4:37 PM

SEEDING END WIDTH	SEEDING SQ. YARDS		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT	SEEDING END WIDTH	SEEDING SQ. YARDS		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT
12		AHEAD ONLY	8	5					7	16	ADD FOR DRIVE	9	2	10	0		
	16	ADD FOR DRIVE			14	0				13	BACK ONLY			6	2		
10	28	BACK ONLY	6	0	9	2			8	53		10	3	22	6		
10	59		12	3	29	3			11	62		13	3	20	8		
	103	SHEET TOTALS			52	5				144	SHEET TOTALS			58	16		



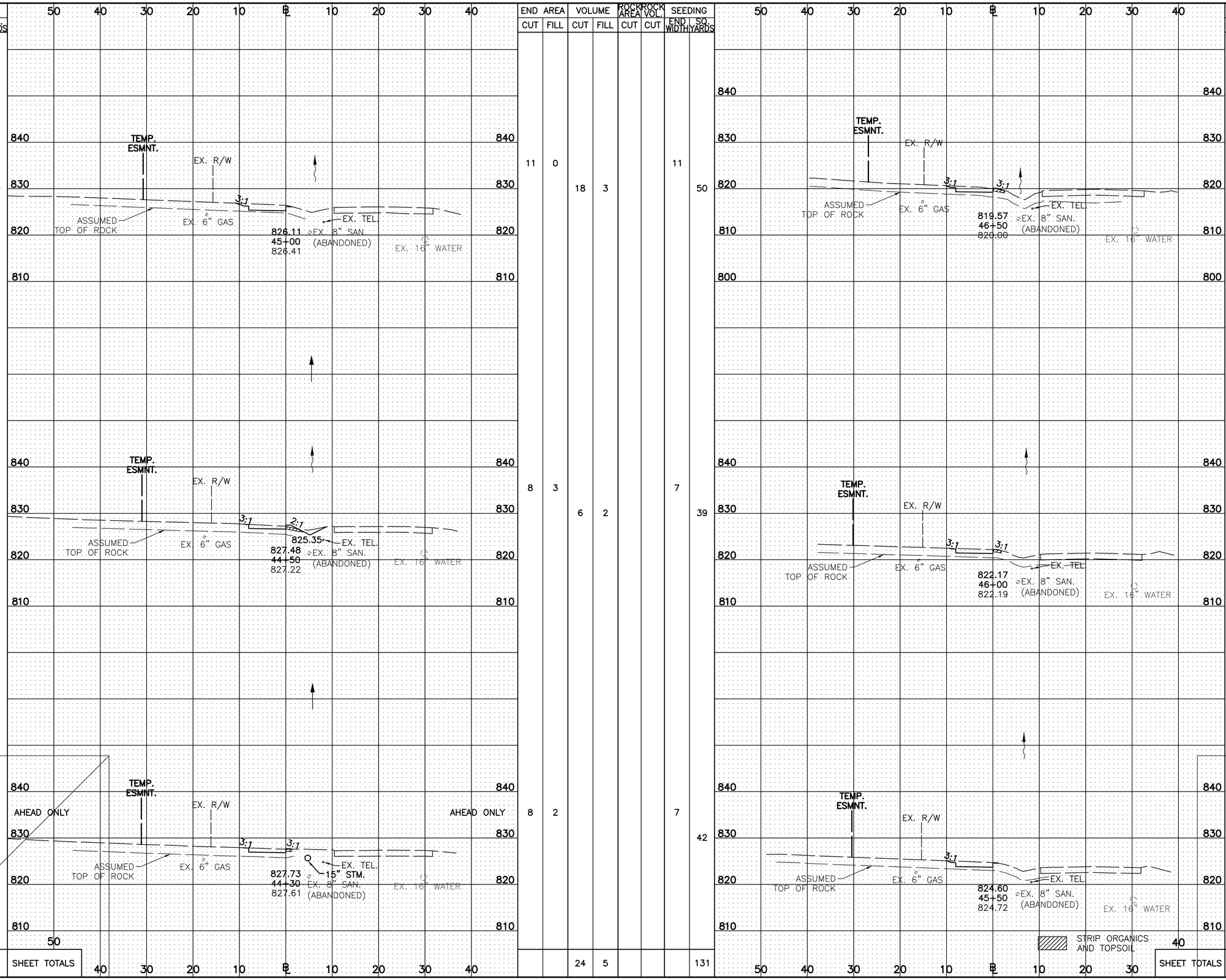
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - RINGS ROAD TO GRANDVIEW DRIVE
STA. 42+50 TO STA. 44+15

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Rings to Grandview.dwg LAST SAVED: 10/21/2014 9:48 AM LAST PLOTTED: 5/29/2015 4:37 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT
8	50	11	0	18	3			11	50	10	0	17	0		
9	18	8	3	6	2			7	39	8	0	16	0		
6	AHEAD ONLY	8	2					7	42	9	0	19	0		
68	SHEET TOTALS			24	5				131			52	0		



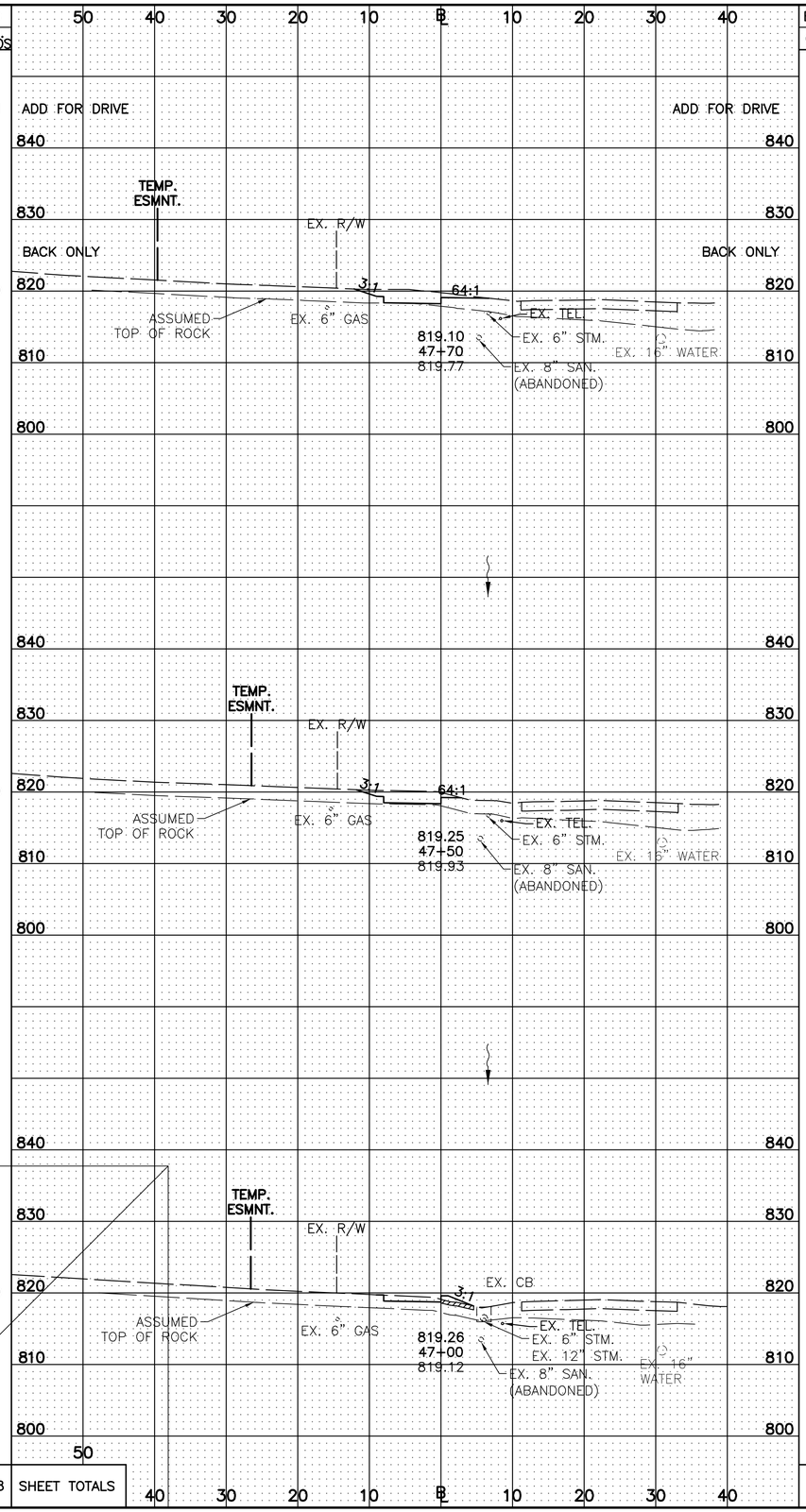
CALCULATED CNK
CHECKED TJS

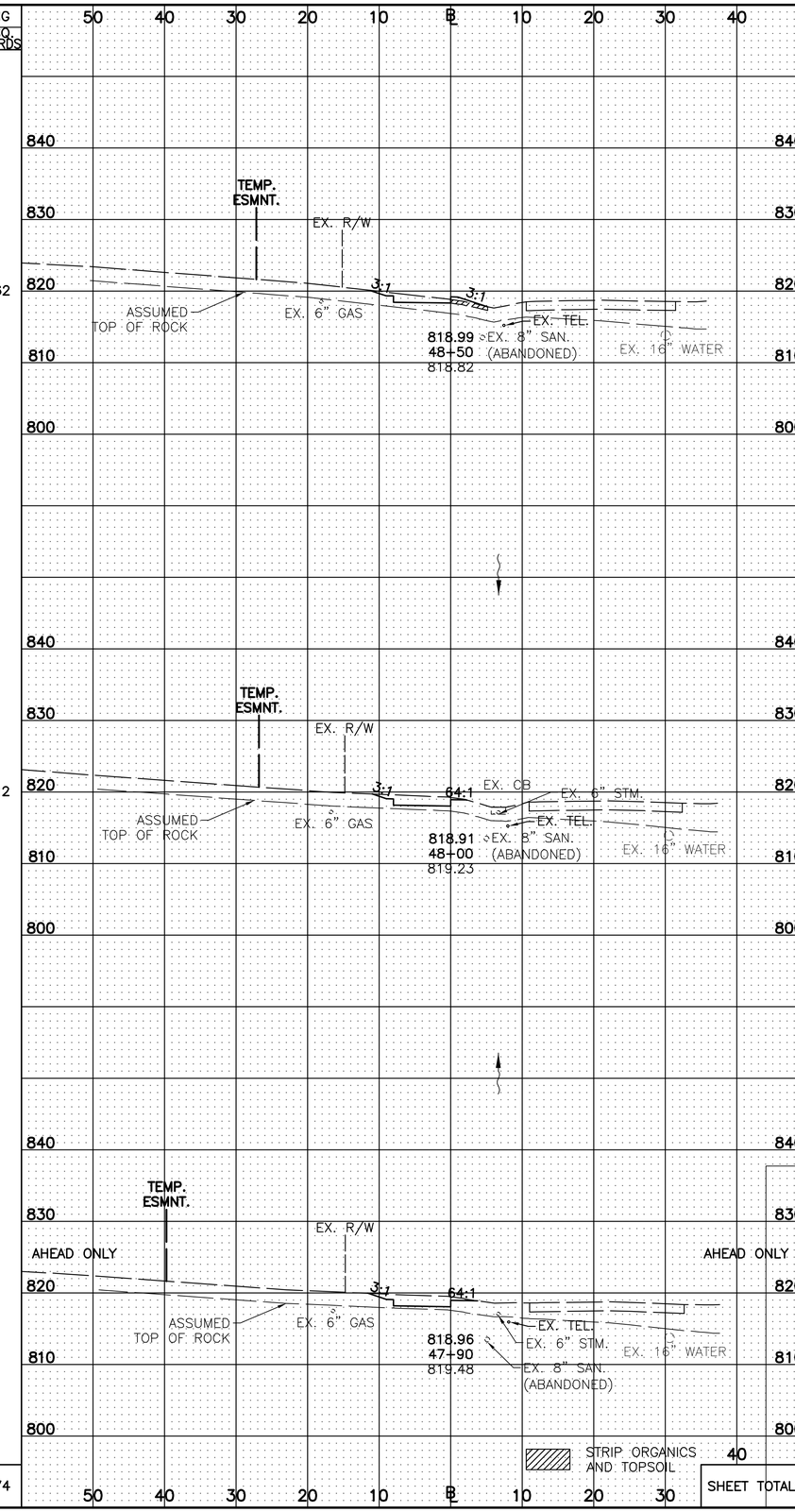
CROSS SECTIONS - RINGS ROAD TO GRANDVIEW DRIVE
STA. 44+30 TO STA. 46+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel Arron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Rings to Grandview.dwg LAST SAVED: 10/21/2014 9:48 AM LAST PLOTTED: 5/29/2015 4:37 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT
15	21			21	0			13	62	11	4	22	4		
11	59	17	0	24	4			9	12	12	0	5	0		
10	59	8	4	17	4			12		15	0				
	168			76	8				74			27	4		





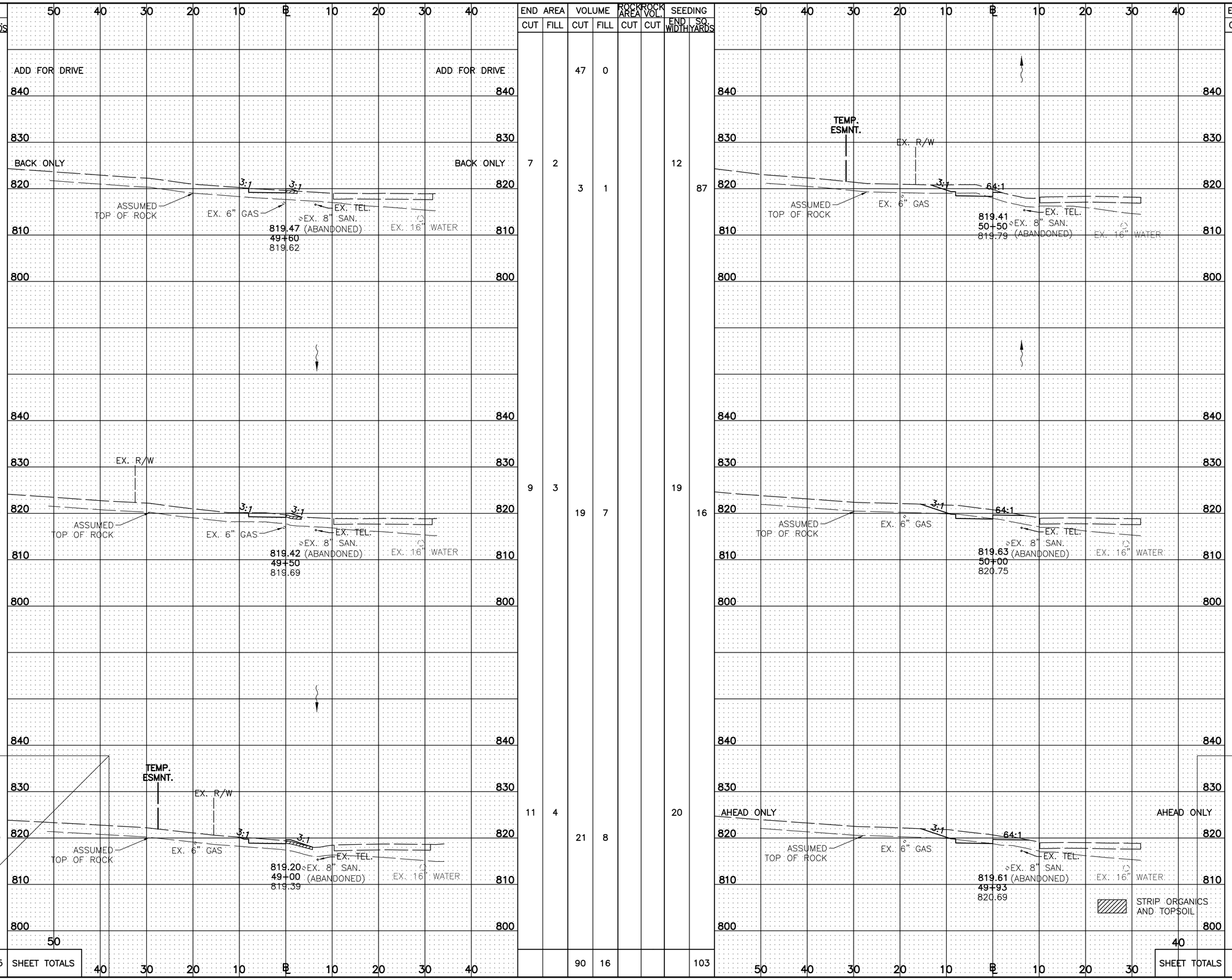
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - RINGS ROAD TO GRANDVIEW DRIVE
STA. 47+00 TO STA. 48+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Arron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Rings to Grandview.dwg LAST SAVED: 10/21/2014 9:48 AM LAST PLOTTED: 5/29/2015 4:38 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT
8	56	7	2	47	0			12	87	20	0	45	0	4	8
9	59	9	3	19	7			19	16	28	0	8	0	4	1
12	70	11	4	21	8			20		28	0			3	
	195 SHEET TOTALS			90	16				103 SHEET TOTALS			53	0		9



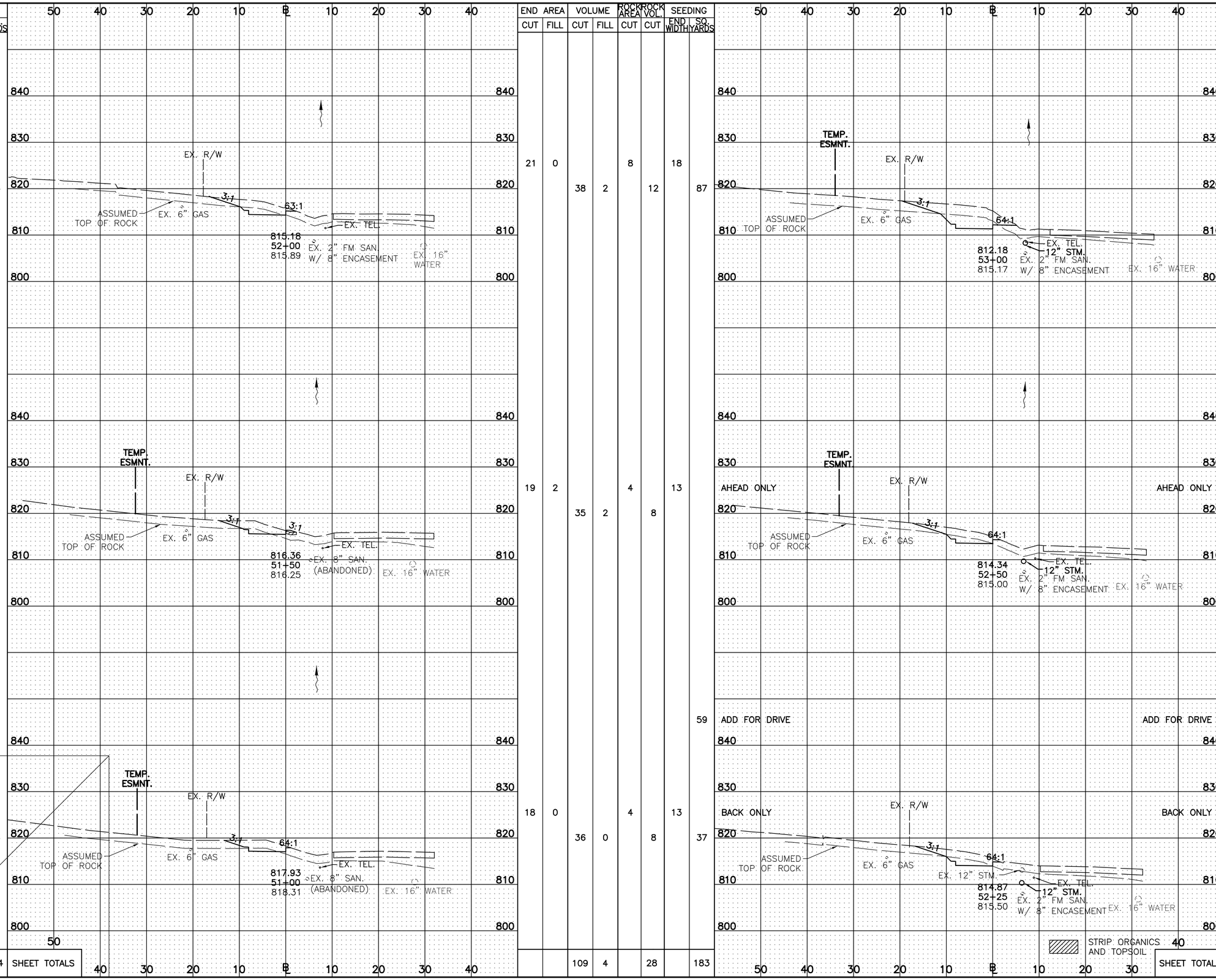
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - RINGS ROAD TO GRANDVIEW DRIVE
STA. 49+00 TO STA. 50+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\section\Cross Sections - Rings to Grandview.dwg LAST SAVED: 10/21/2014 9:48 AM LAST PLOTTED: 5/29/2015 4:38 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT
13	73	21	0	38	2	8	12	18	87	40	0	57	0	26	33
13	67	19	2	35	2	4	8	13	59	21	0	62	0	9	10
11	64	18	0	36	0	4	8	13	37	22	0	20	0	9	8
	204	SHEET TOTALS		109	4		28		183	SHEET TOTALS		139	0		51



CALCULATED CNK
CHECKED TJS

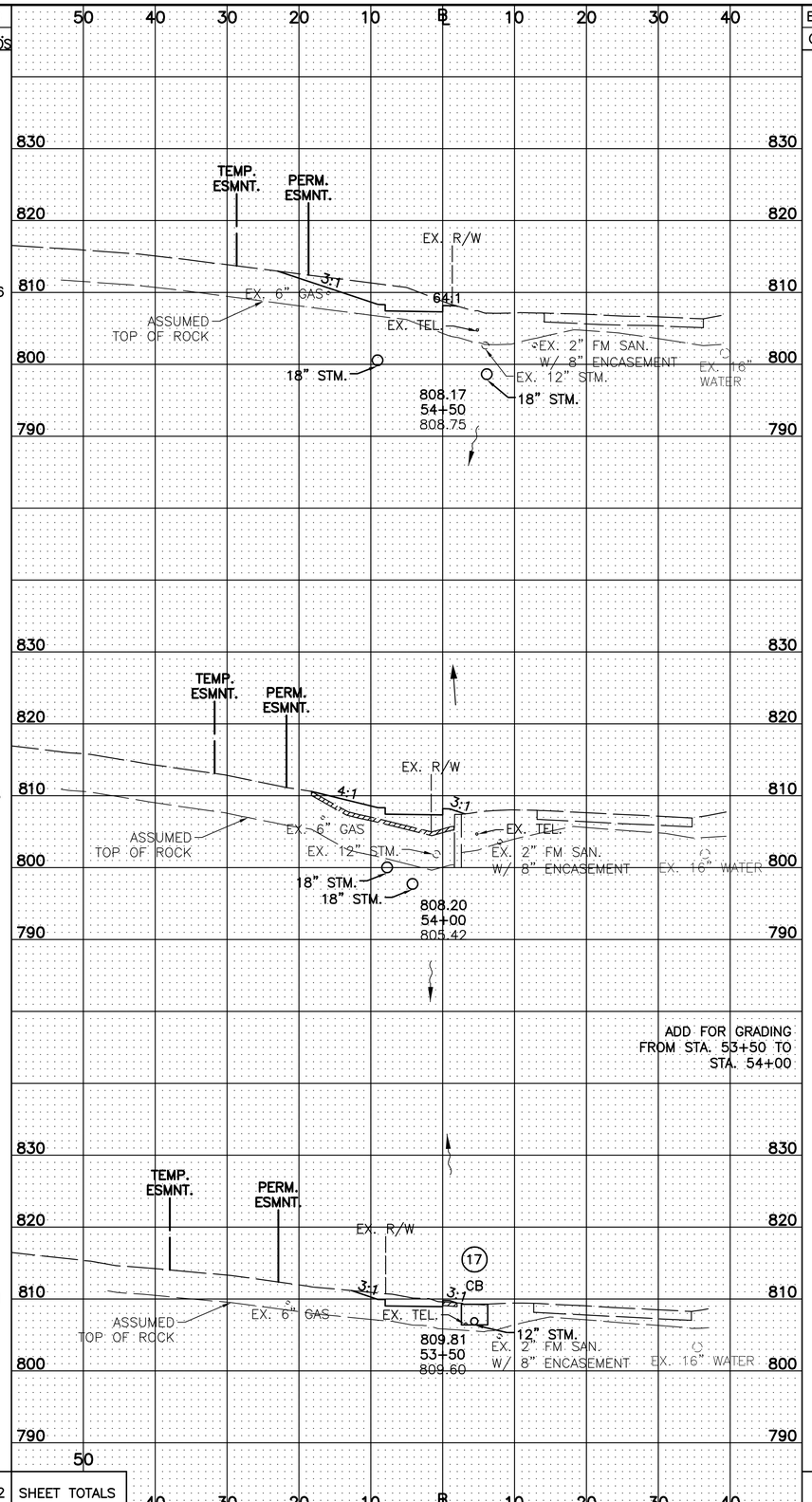
CROSS SECTIONS - RINGS ROAD TO GRANDVIEW DRIVE
STA. 51+00 TO STA. 53+00

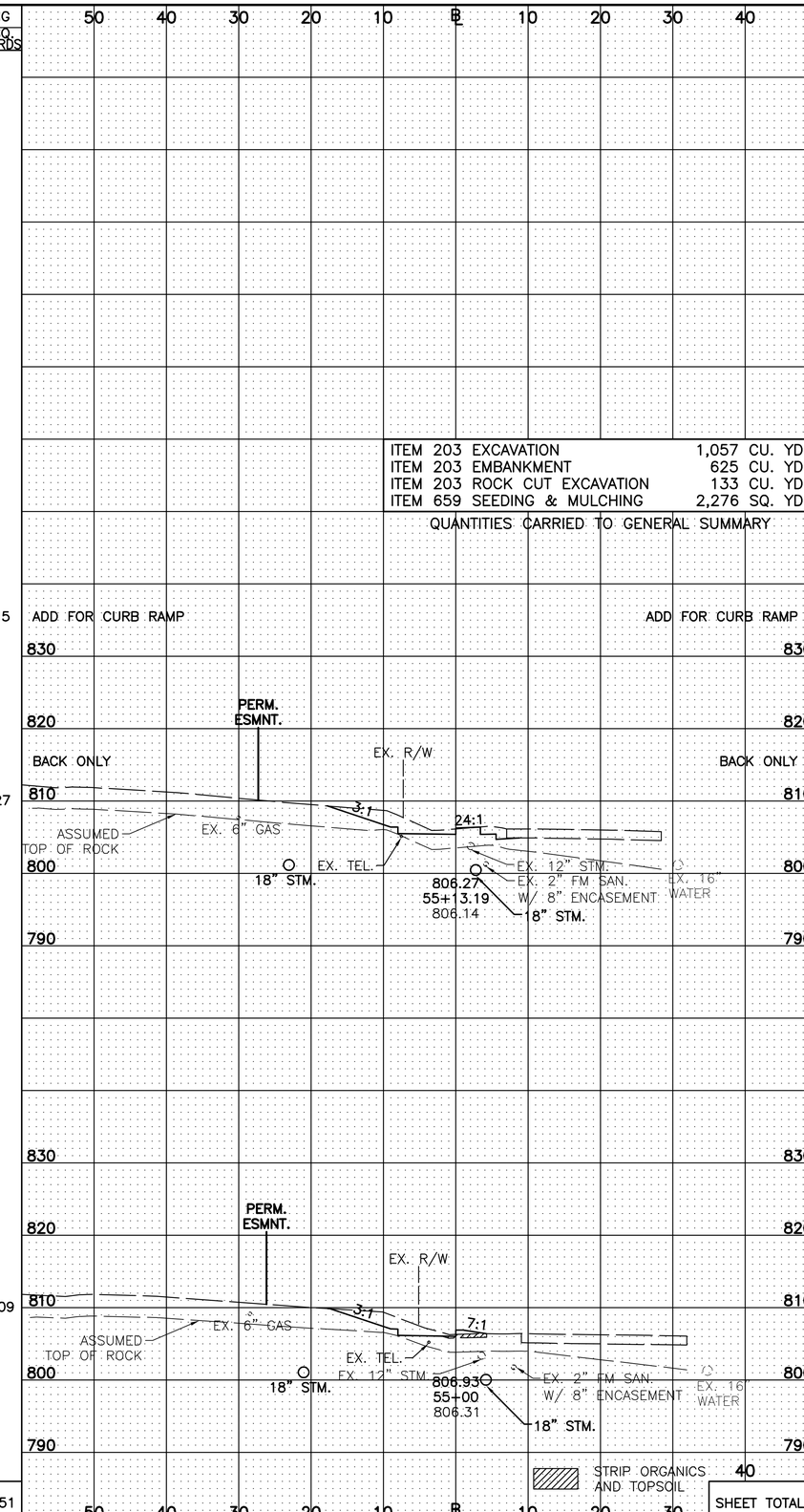
DUBLIN ROAD SOUTH
MULTI-USE PATH

25
84

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Rings to Grandview.dwg LAST SAVED: 10/21/2014 9:48 AM LAST PLOTTED: 5/29/2015 4:38 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	ROCK AREA CUT	ROCK VOL. CUT
21	106	46	0	53	39										
17	78	11	42	22	40			18	27	21	1	11	2		
7				0	120										
11	81	12	1	49	1	0	25	18	109	23	5	64	5		
	272 SHEET TOTALS			124	200		25		151	SHEET TOTALS		81	8		





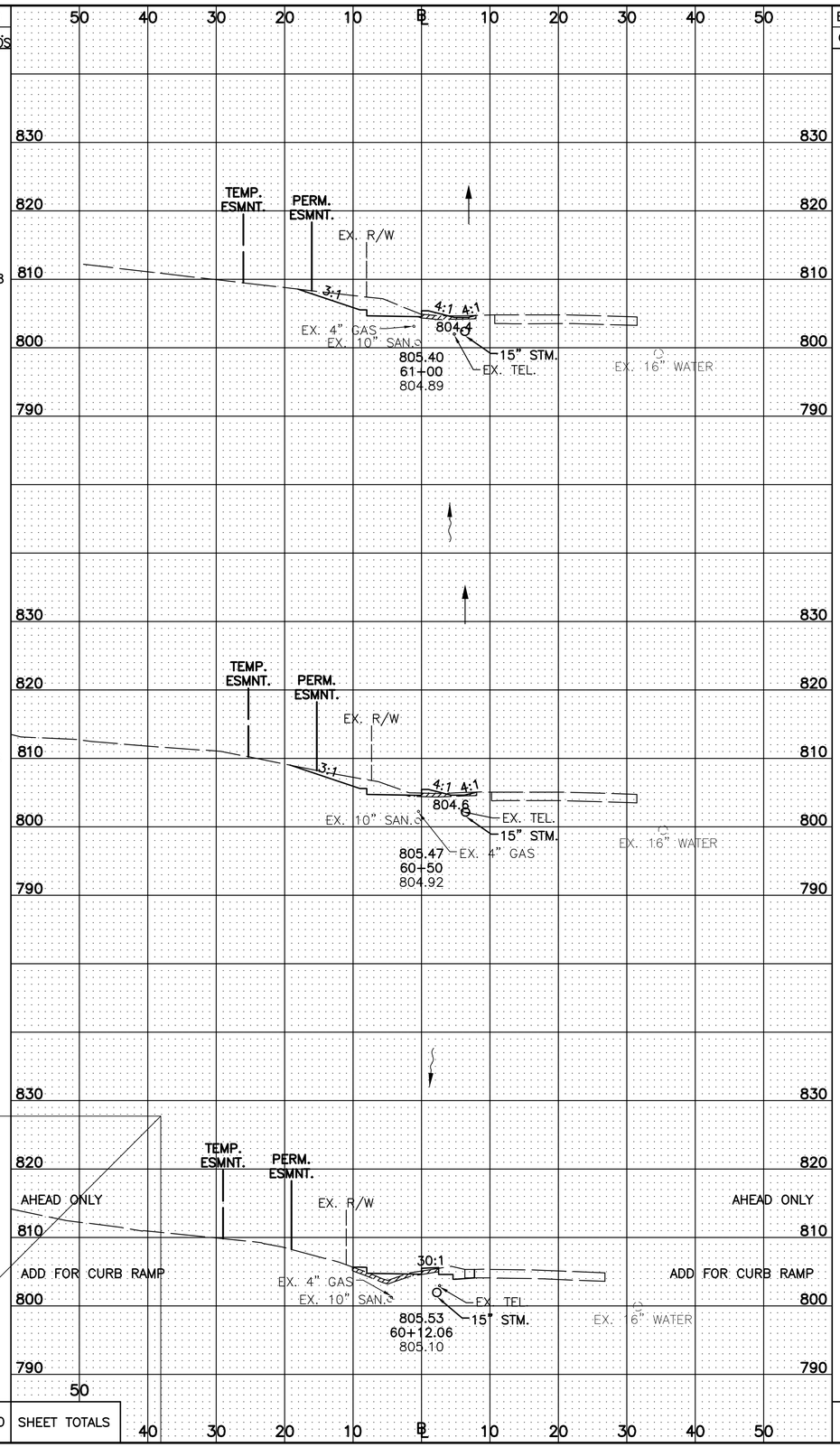
CALCULATED CNK
CHECKED TJS

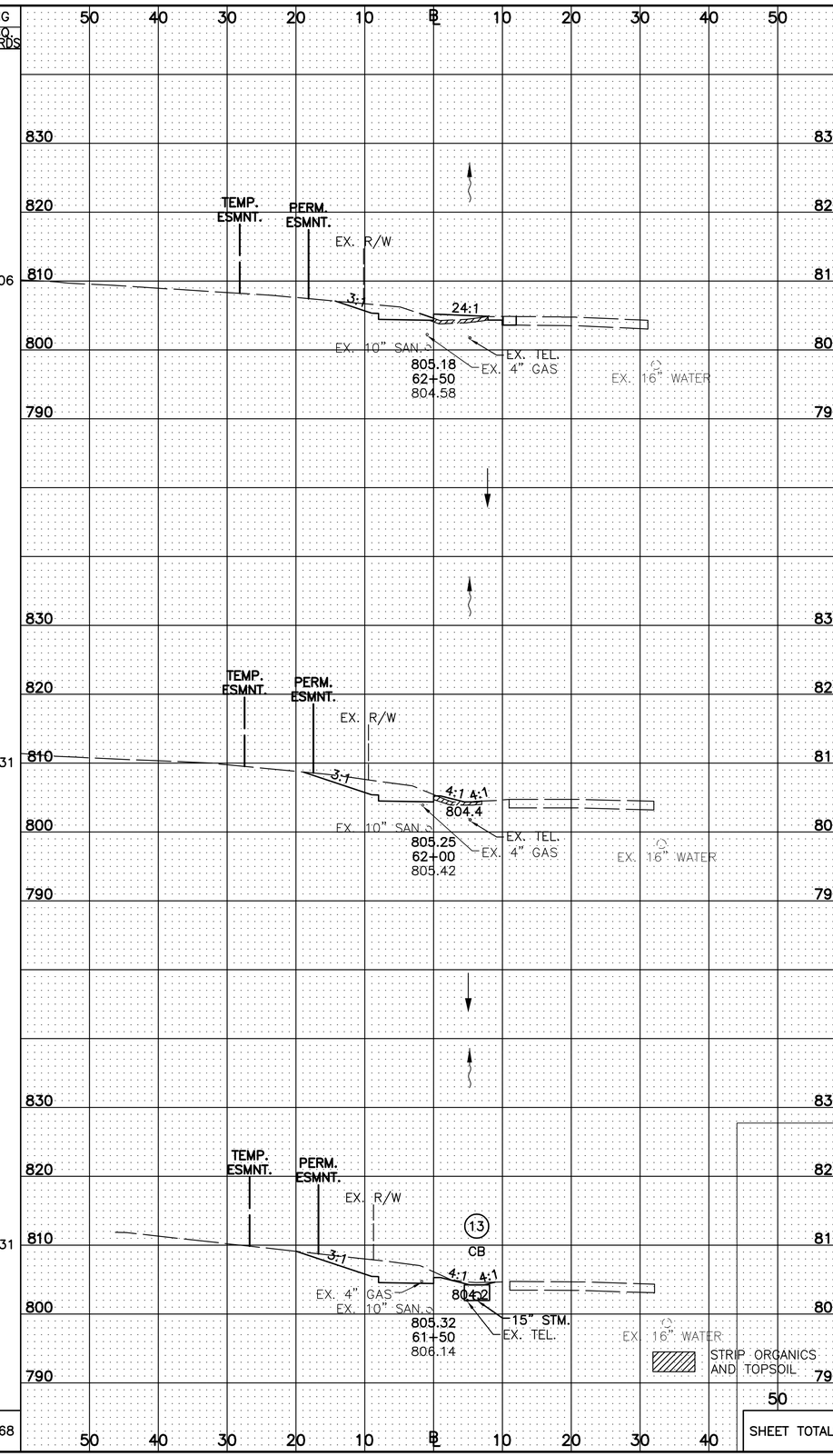
CROSS SECTIONS - RINGS ROAD TO GRANDVIEW DRIVE
STA. 53+50 TO STA. 55+13.19

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Rings to Grandview.dwg LAST SAVED: 10/21/2014 9:48 AM LAST PLOTTED: 5/29/2015 4:38 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22	128	30	5	49	9	16	106	20	8	51	13
24	66	22	4	21	10	22	131	35	5	70	5
7	6	7	10	2	3	25	131	40	0	65	5
	200 SHEET TOTALS			72	22		368 SHEET TOTALS			186	23





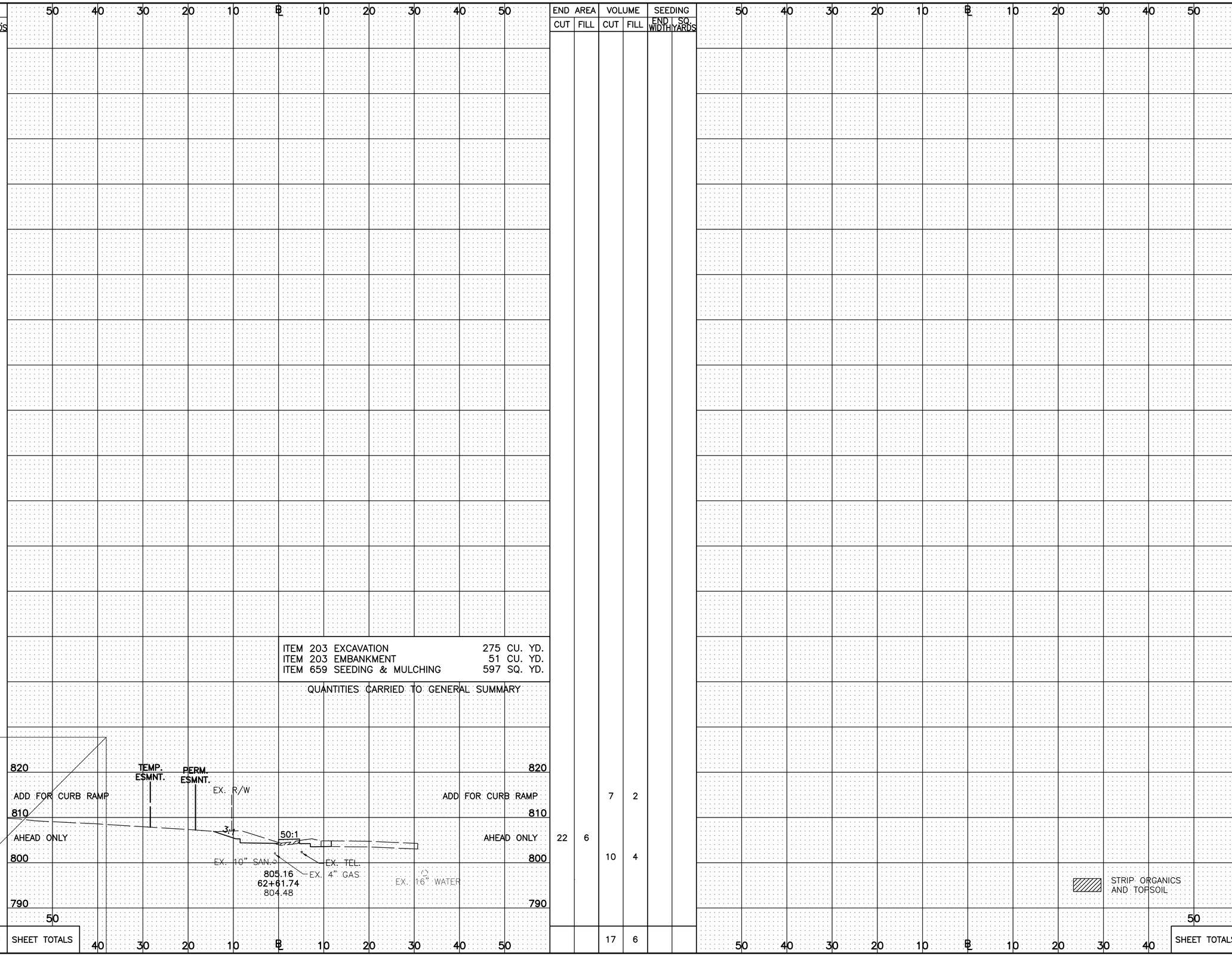
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - GRANDVIEW DRIVE TO LONGVIEW DRIVE
STA. 60+12.06 TO STA. 62+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Grandview to Longview.dwg LAST SAVED: 2/4/2015 12:21 PM LAST PLOTTED: 5/29/2015 4:38 PM

SEEDING		END AREA		VOLUME		SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YARDS	CUT	FILL	CUT	FILL	END WIDTH	SQ. YARDS	CUT	FILL	CUT	FILL
12	10	22	6	7	2						
19	29			10	4						
	SHEET TOTALS			17	6		SHEET TOTALS				



ITEM 203 EXCAVATION	275 CU. YD.
ITEM 203 EMBANKMENT	51 CU. YD.
ITEM 659 SEEDING & MULCHING	597 SQ. YD.

QUANTITIES CARRIED TO GENERAL SUMMARY

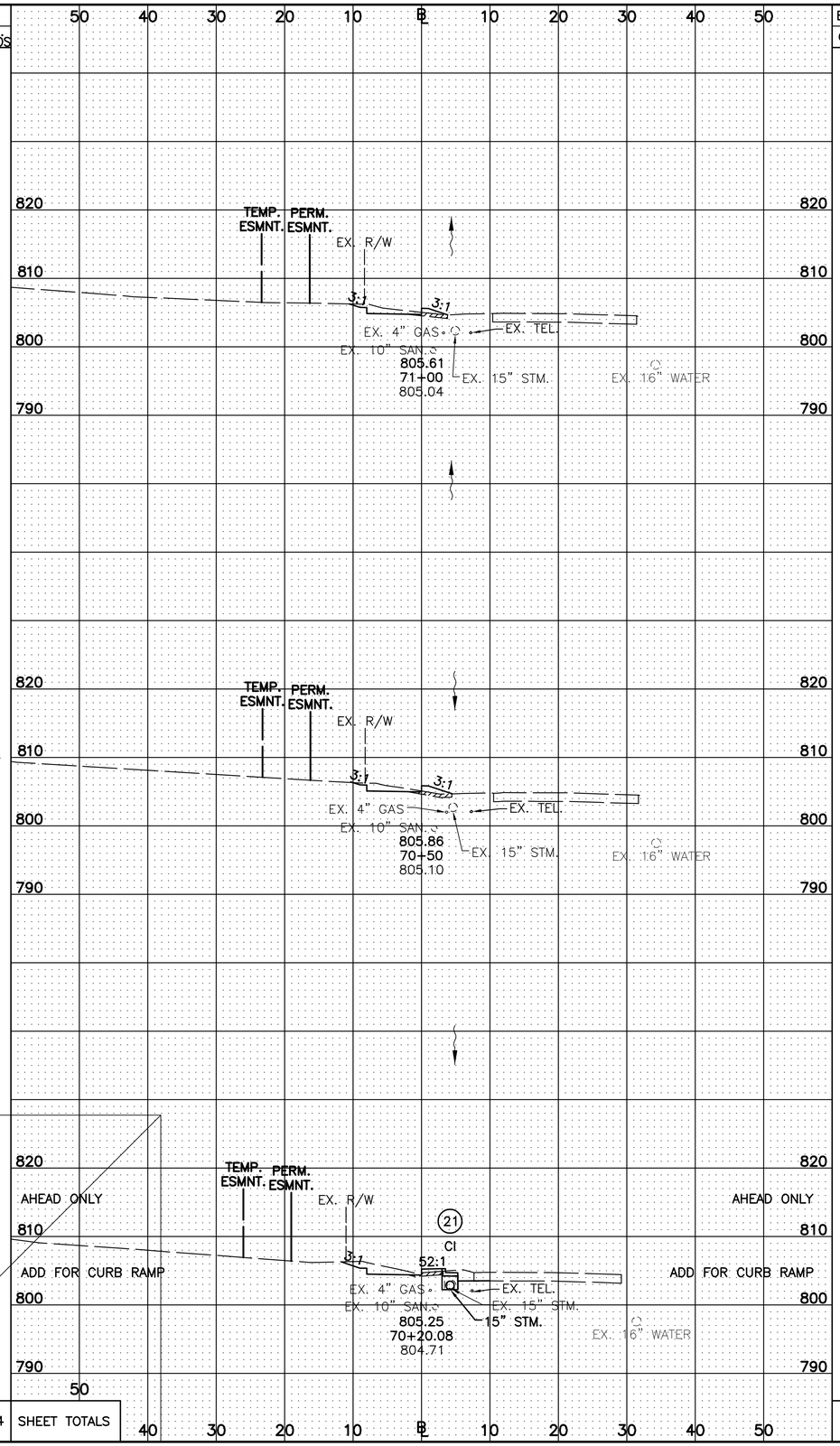
CALCULATED CNK
CHECKED TJS

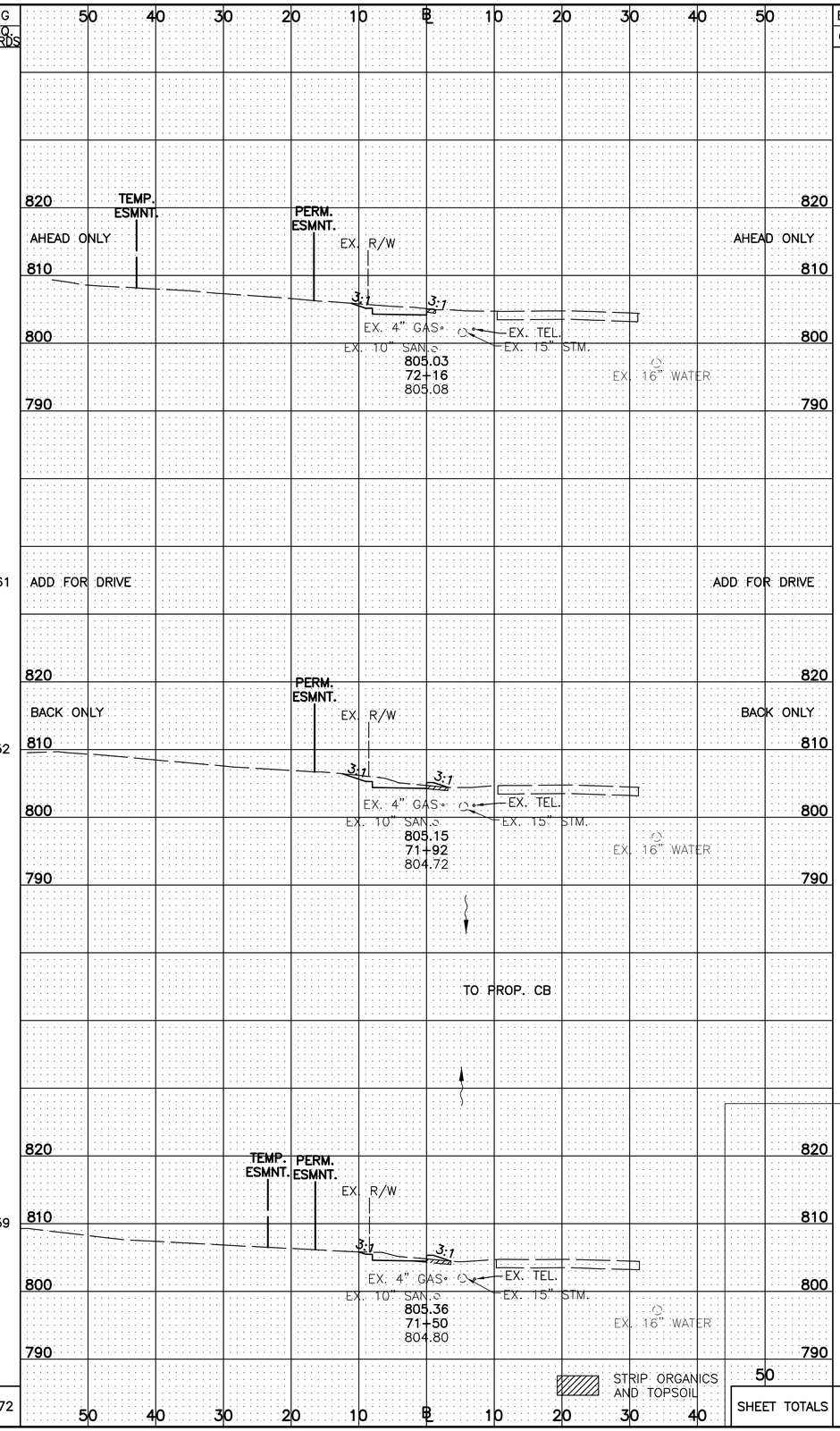
CROSS SECTIONS - GRANDVIEW DRIVE TO LONGVIEW DRIVE
STA. 62+61.74

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Section\Cross Sections - Grandview to Longview.dwg LAST SAVED: 2/4/2015 12:21 PM LAST PLOTTED: 5/29/2015 4:38 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
11	62	9	4	17	10	9	61	10	0	48	0
11	34	9	6	12	5	12	52	11	3	15	5
9	8	12	3	4	1	10	59	8	3	16	7
	104 SHEET TOTALS			33	16		172 SHEET TOTALS			79	12





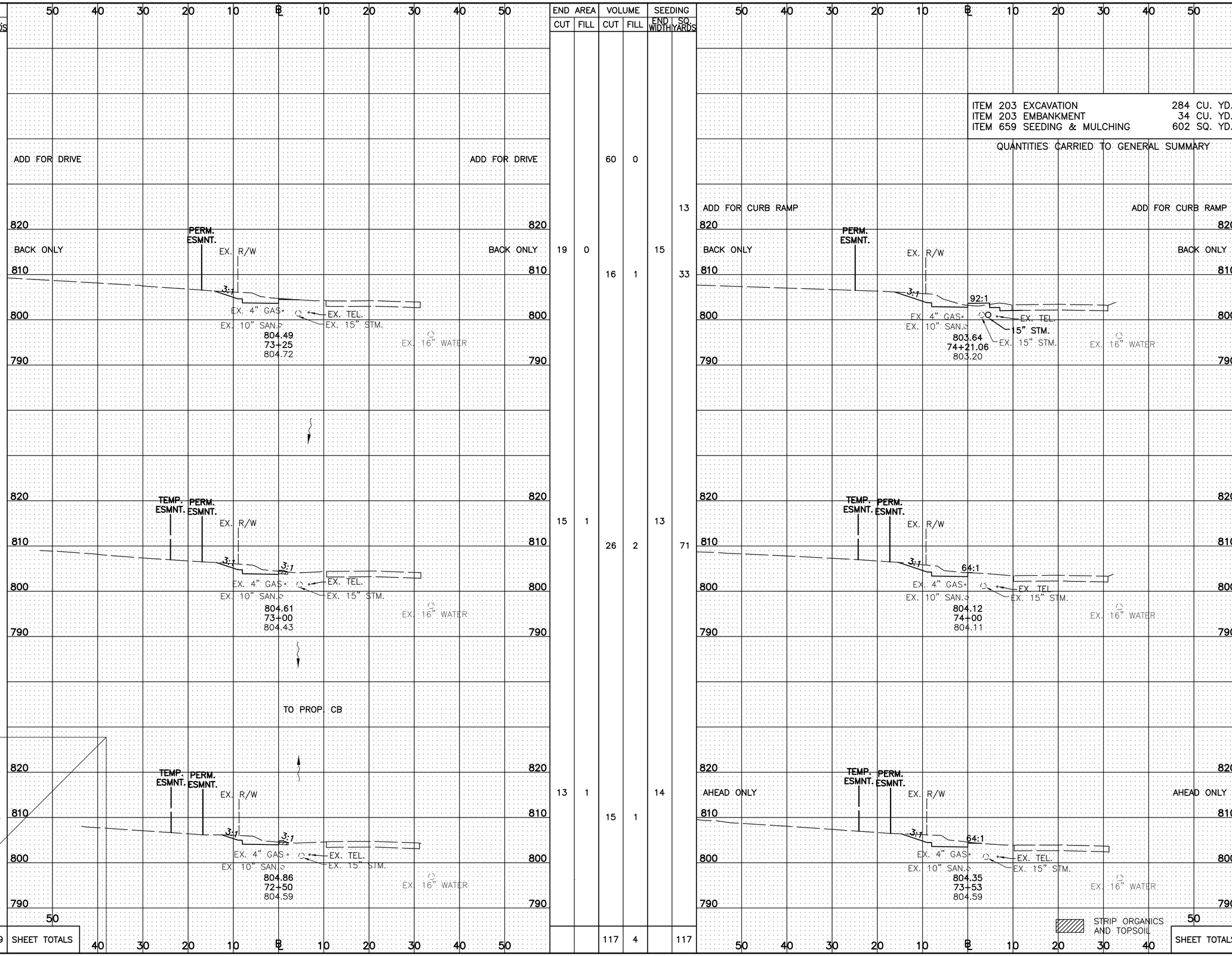
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - LONGVIEW DRIVE TO MARION STREET
STA. 70+20.08 TO STA. 72+16

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Arron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Longview to Marion.dwg LAST SAVED: 10/21/2014 9:51 AM LAST PLOTTED: 5/29/2015 4:39 PM

SEEDING END WIDTH	SEEDING SQ. YARDS		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	69	ADD FOR DRIVE / ADD FOR DRIVE			60	0		13	ADD FOR CURB RAMP / ADD FOR CURB RAMP			6	1
15	38	BACK ONLY / BACK ONLY	19	0	16	1	15	33	BACK ONLY / BACK ONLY	20	2	15	1
12	64		15	1	26	2	13	71		17	0	34	0
11	38	TO PROP. CB	13	1	15	1	14		AHEAD ONLY / AHEAD ONLY	21	0		
	209	SHEET TOTALS			117	4		117	SHEET TOTALS			55	2



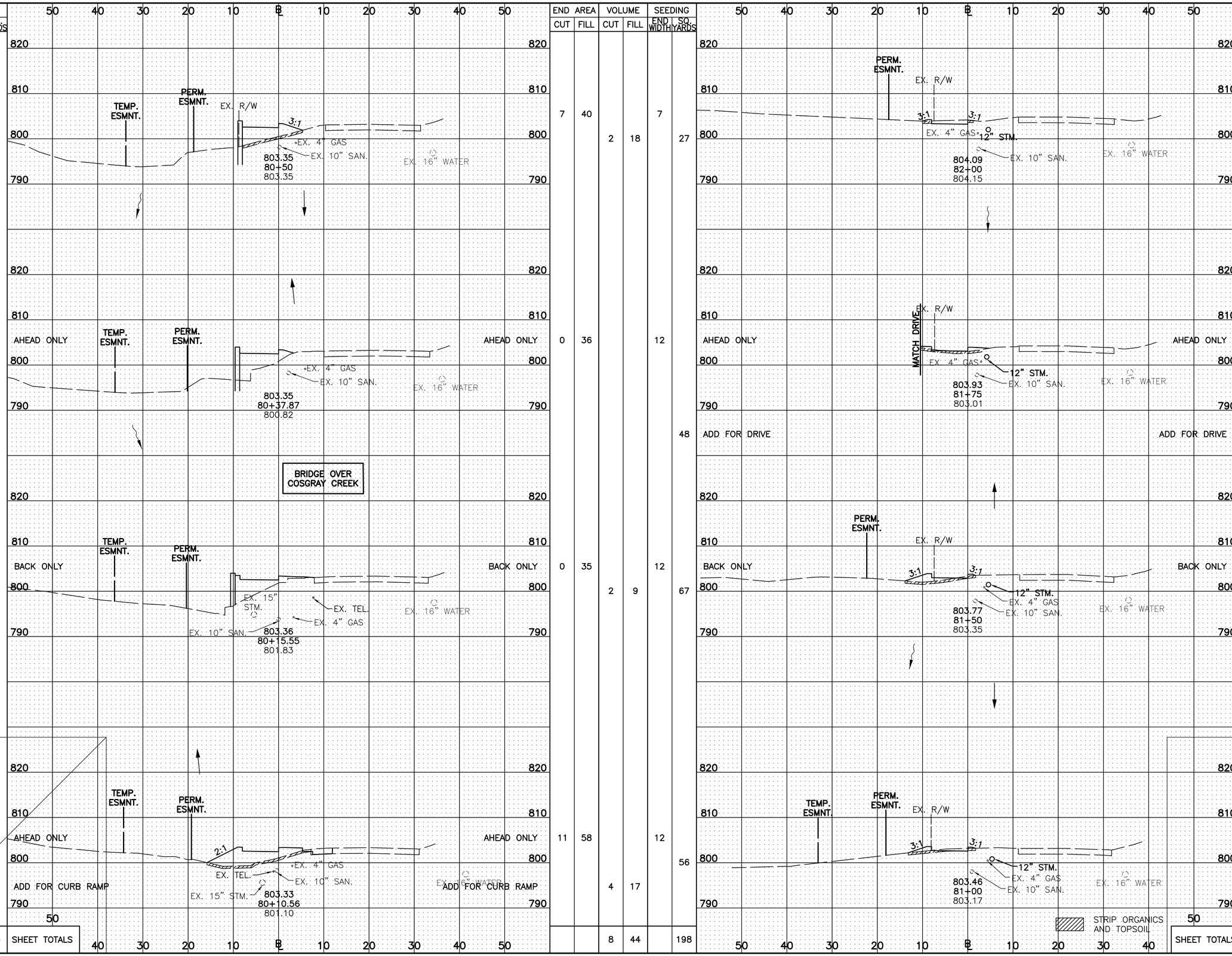
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - LONGVIEW DRIVE TO MARION STREET
STA. 72+50 TO STA. 74+21.06

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Arron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Longview to Marion.dwg LAST SAVED: 10/21/2014 9:51 AM LAST PLOTTED: 5/29/2015 4:39 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
8	10	7	40	2	18	7	27	8	3	8	7
5		0	36			12	48	8	11	15	0
9	9	0	35	2	9	12	67	9	17	16	24
16	14	11	58	4	17	12	56	8	8	14	45
33	SHEET TOTALS			8	44		198			53	76



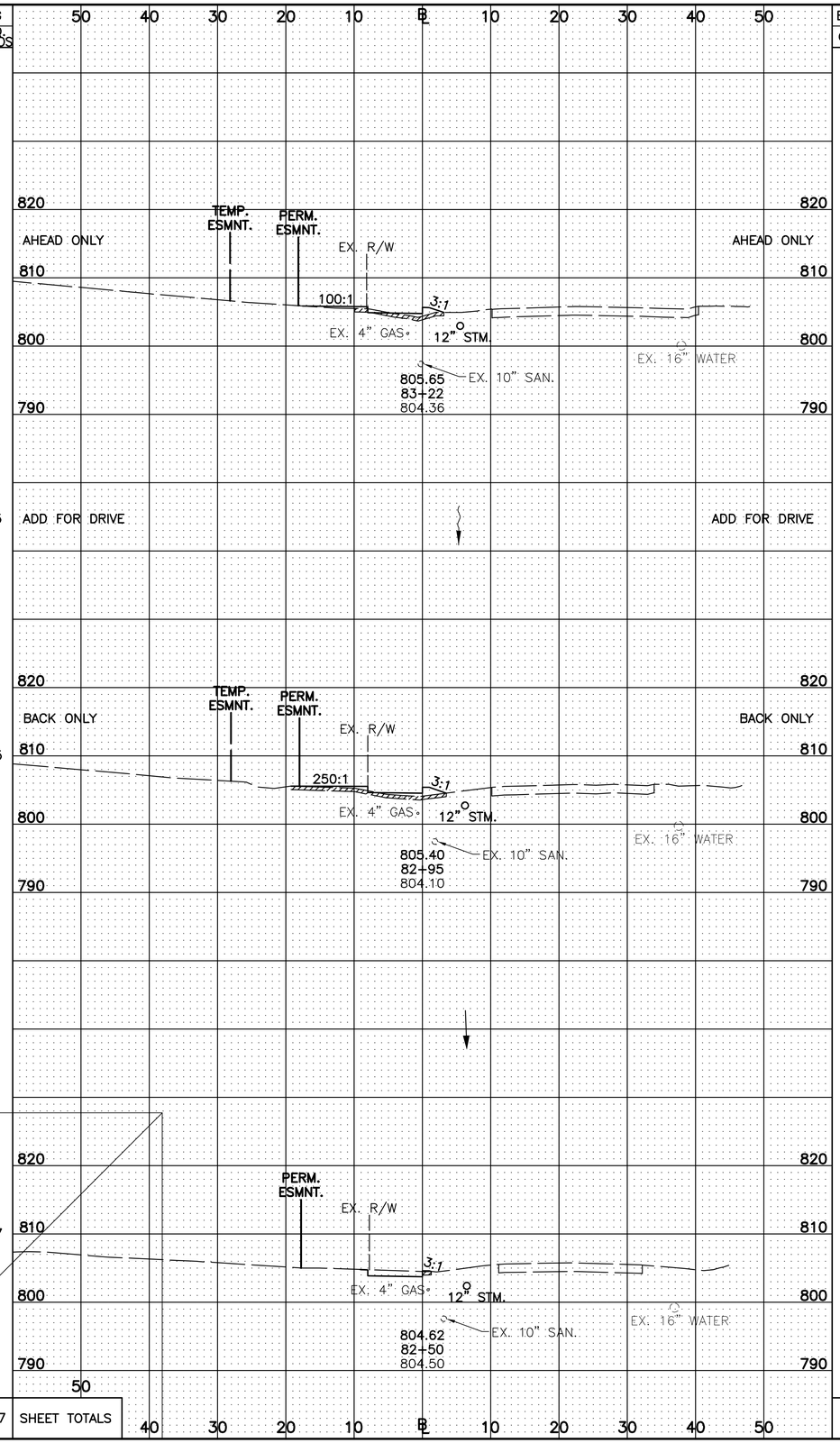
CALCULATED CNK
CHECKED TJS

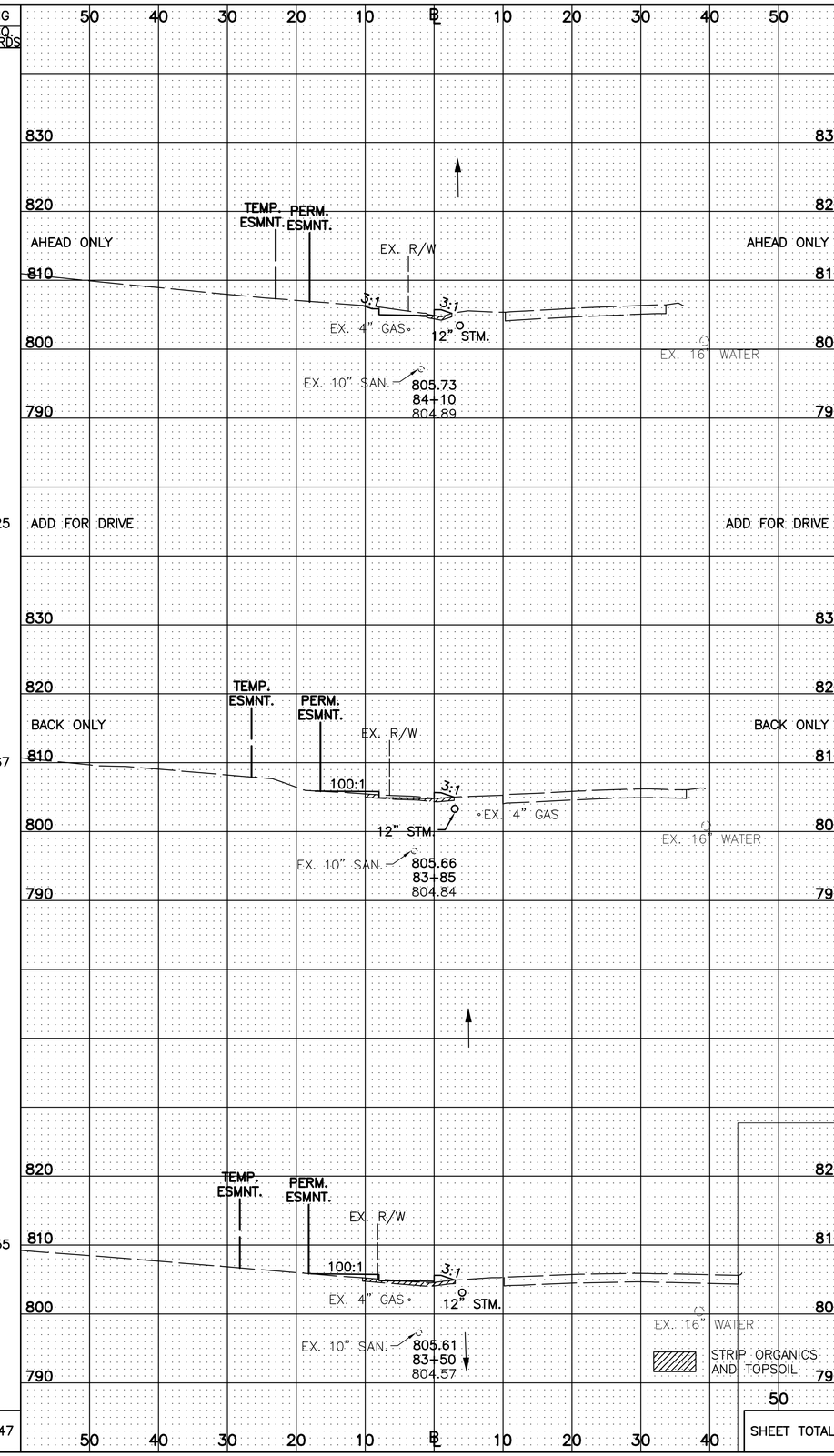
CROSS SECTIONS - MARION STREET TO WATERFORD DRIVE
STA. 80+10.56 TO STA. 82+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Marion to Waterford.dwg LAST SAVED: 10/21/2014 9:56 AM LAST PLOTTED: 5/29/2015 4:39 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
18	15	7	10	10	0	10	25	8	4	15	0
20	65	12	18	17	17	17	67	7	9	10	14
6	37	8	2	15	5	17	55	7	12	8	12
	117 SHEET TOTALS			42	22		147 SHEET TOTALS			33	26





CALCULATED CNK
CHECKED TJS

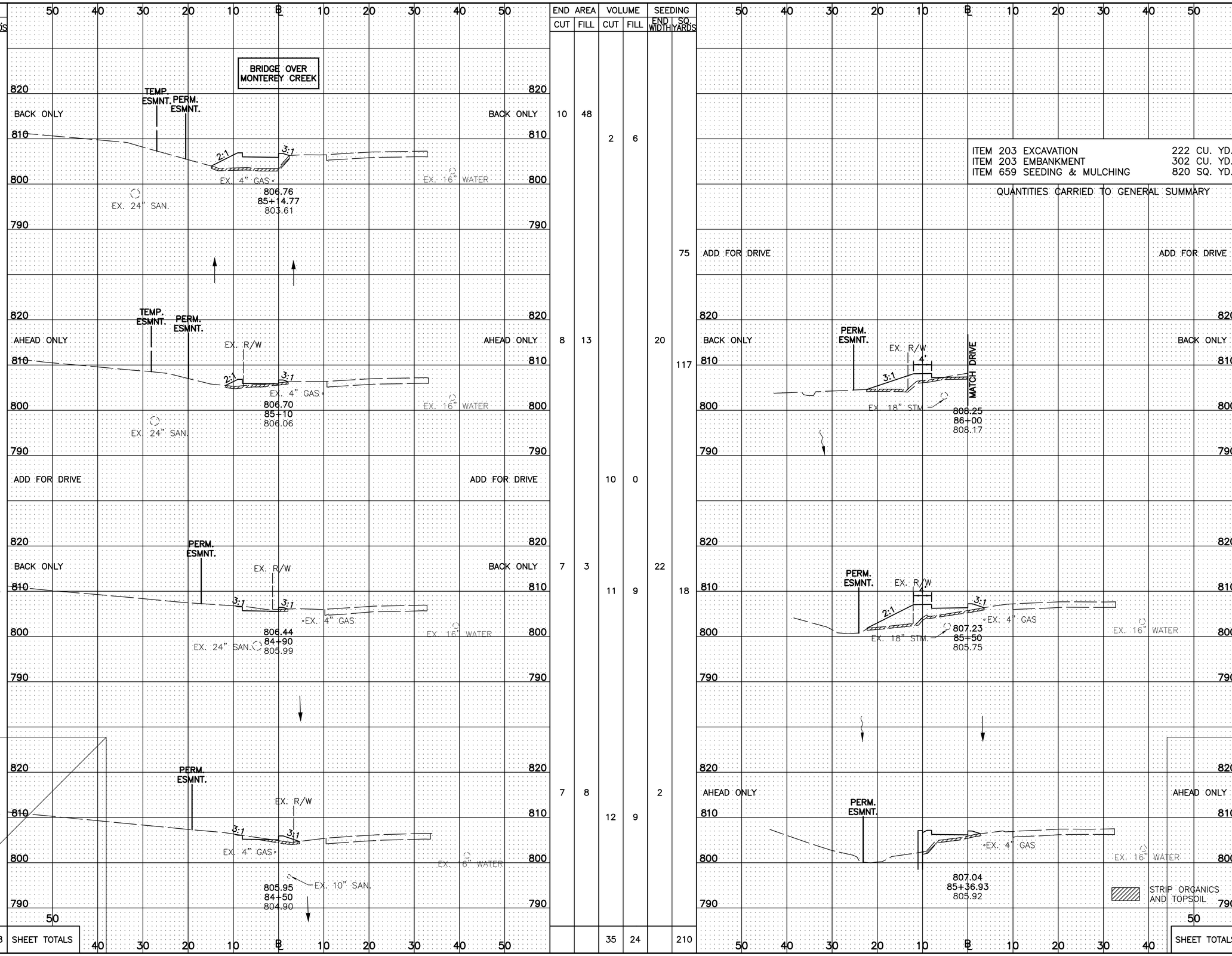
CROSS SECTIONS - MARION STREET TO WATERFORD DRIVE
STA. 82+50 TO STA. 84+10

DUBLIN ROAD SOUTH
MULTI-USE PATH

32/84

McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Marion to Waterford.dwg LAST SAVED: 10/21/2014 9:56 AM LAST PLOTTED: 5/29/2015 4:39 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
13	7	10	48	2	6						
10		8	13			20	75			21	0
8	43	7	3	11	9	22	18	13	60	5	21
11	47	7	8	12	9	2		7	26		
	21			10	0						
	118			35	24		210			51	110



ITEM 203 EXCAVATION	222 CU. YD.
ITEM 203 EMBANKMENT	302 CU. YD.
ITEM 659 SEEDING & MULCHING	820 SQ. YD.

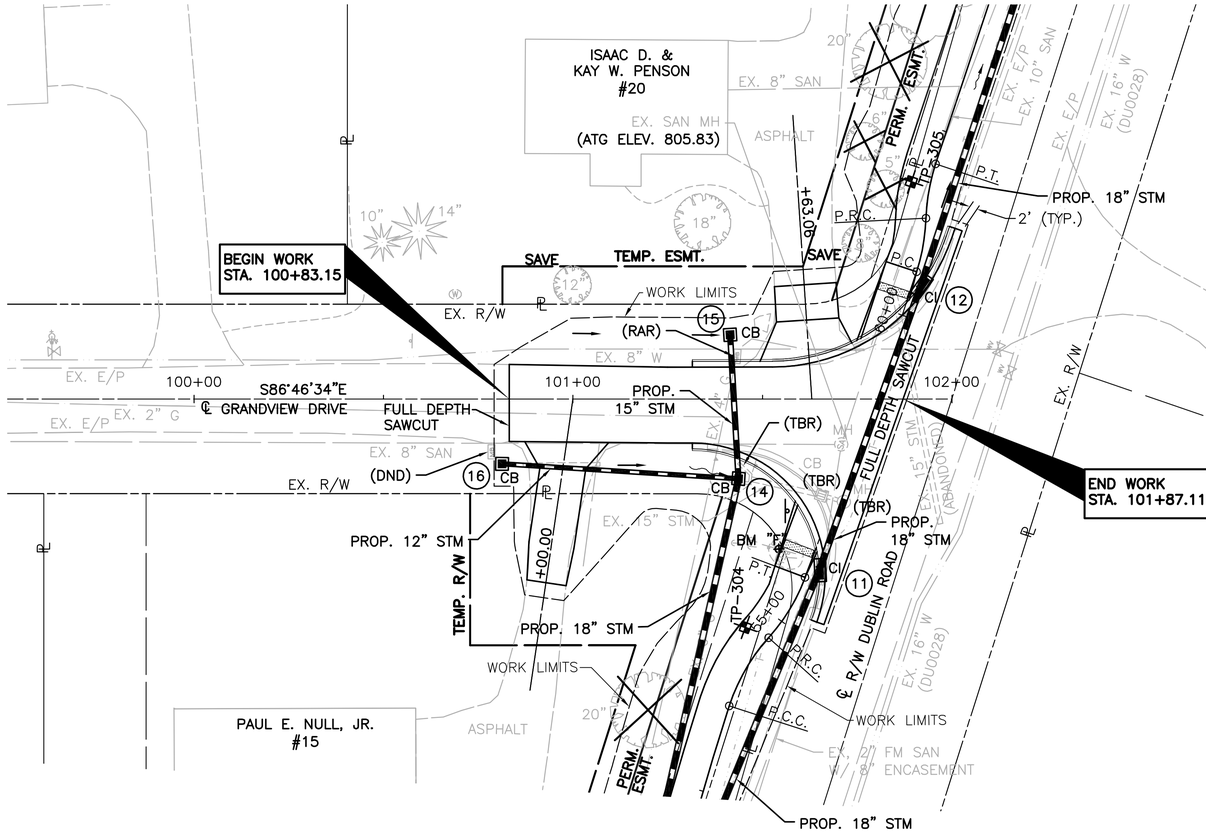
QUANTITIES CARRIED TO GENERAL SUMMARY

CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - MARION STREET TO WATERFORD DRIVE
STA. 84+50 TO STA. 86+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

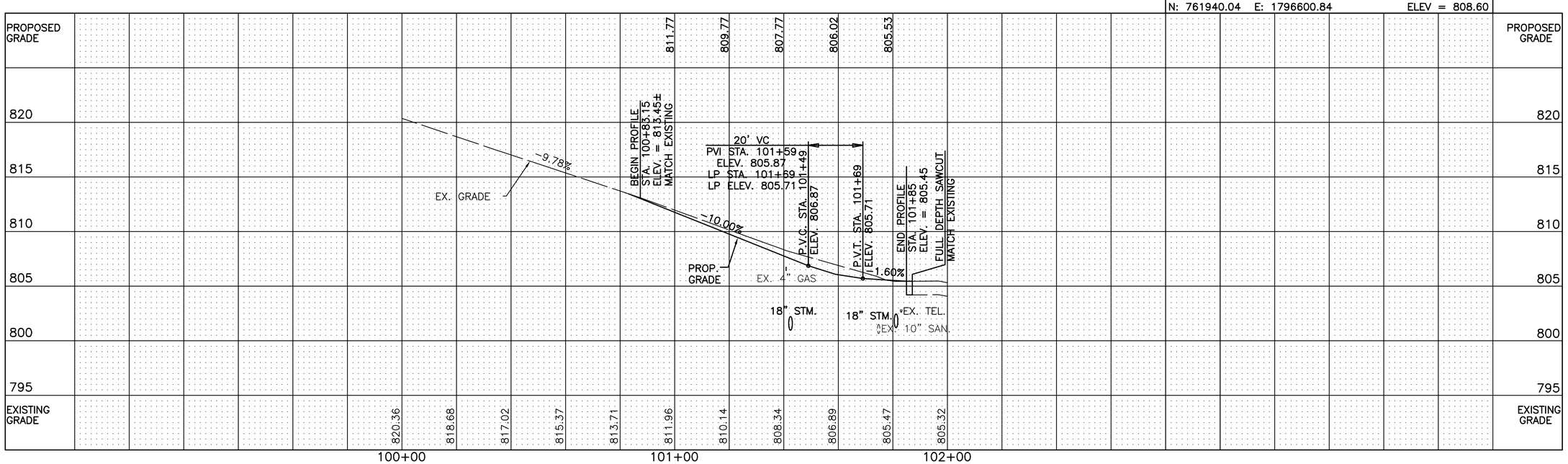
McDaniel, Aron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Marion to Waterford.dwg LAST SAVED: 10/21/2014 9:56 AM LAST PLOTTED: 5/29/2015 4:39 PM



FOR MULTI-USE PATH PLAN AND PROFILE, SEE SHEET 15
FOR INTERSECTION DETAILS, SEE SHEET 40
FOR DRIVEWAY DETAILS, SEE SHEET 47
FOR STORM SEWER PROFILES, SEE SHEET 48-49
FOR GRADING PLAN, SEE SHEET 57
FOR TREE PRESERVATION PLAN, SEE SHEET 63
FOR TRAFFIC CONTROL PLAN, SEE SHEET 68

B-xxx = SOIL BORING
TP-xxx = TEST PIT
RD = REMOVE AND DELIVER TO THE OWNER
RR = REMOVE AND RELOCATE
RAR = REMOVE AND RESET
TBR = TO BE REMOVED
DND = DO NOT DISTURB
ATG = ADJUST TO GRADE
* = PER RECORD PLAN, CONTRACTOR TO LOCATE
OHWM = ORDINARY HIGH WATER MARK
G.U. ESMT = GENERAL UTILITY EASEMENT
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT

BM "F": RAILROAD SPIKE IN THE EAST SIDE OF A POWER POLE, ON THE SOUTH SIDE OF GRANDVIEW DRIVE, BEING 32 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.
N: 761940.04 E: 1796600.84 ELEV = 808.60



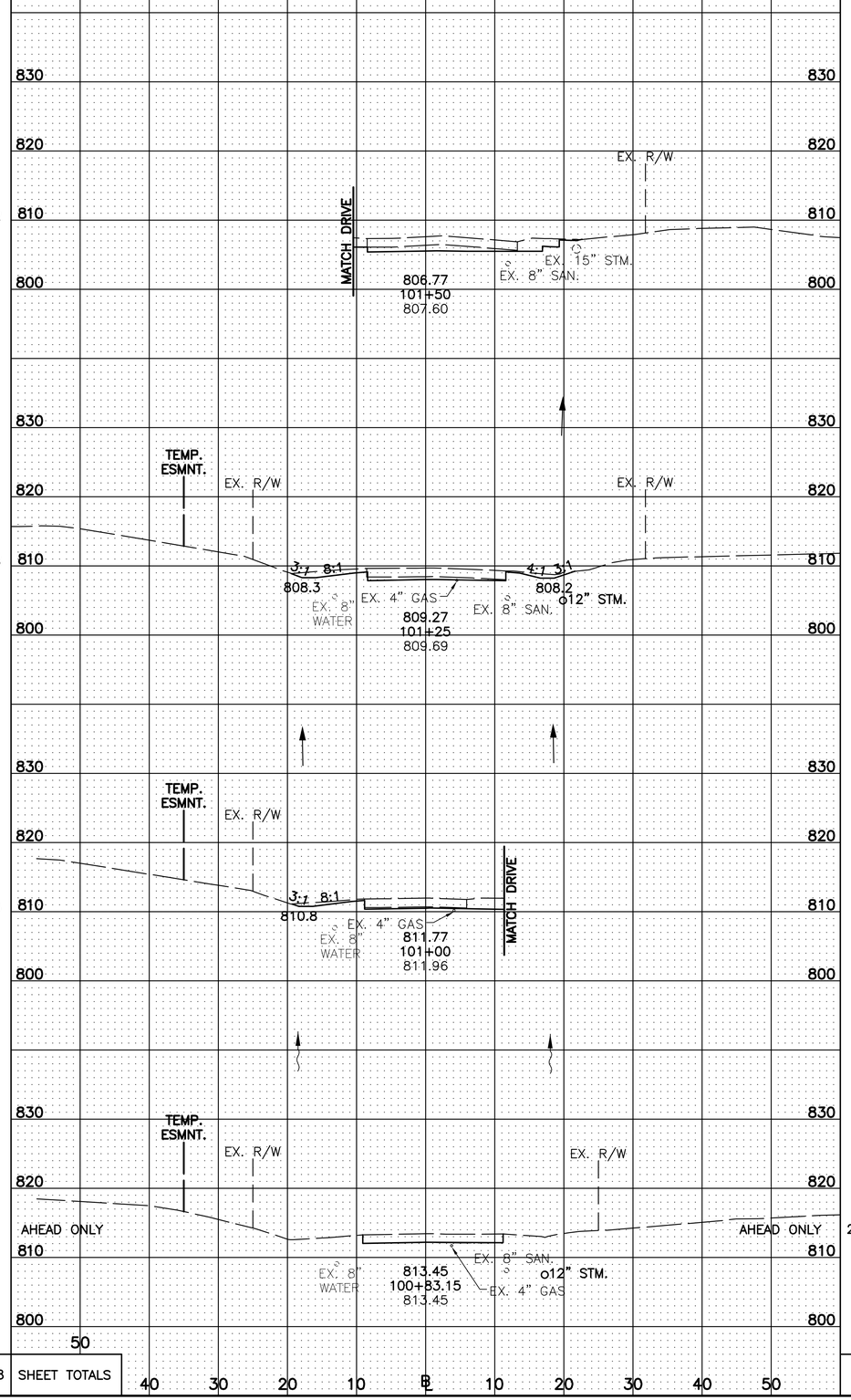
CALCULATED CNK
CHECKED TJS

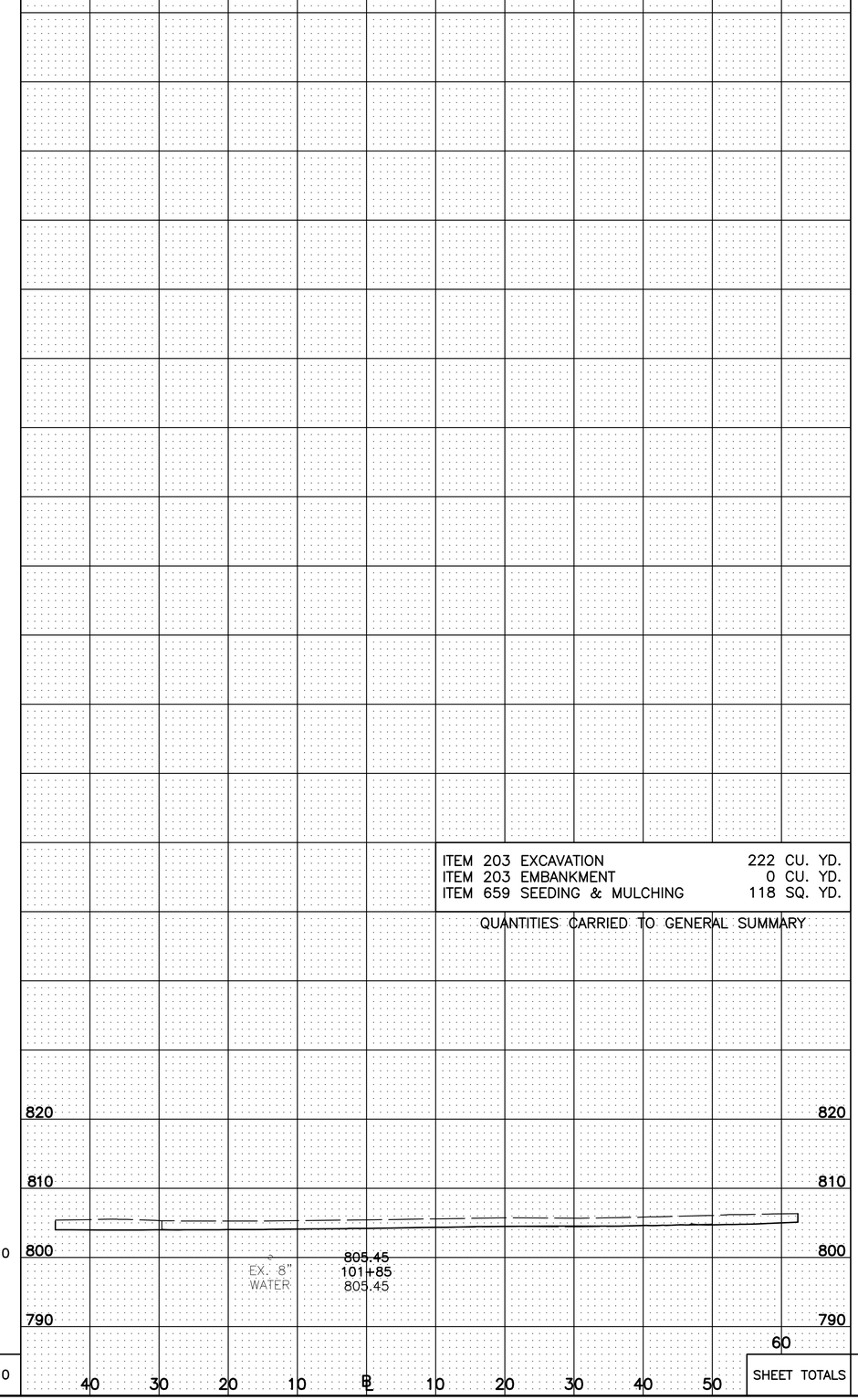
SCALE IN FEET 0 20 40

PLAN AND PROFILE - GRANDVIEW DRIVE

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp17.dwg PLAN AND PROFILE - GRANDVIEW DRIVE Last Saved: Dec 04, 2014 11:23 AM Plotted: May 29, 2015 4:40 PM





SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5	42	53	0	45	0						
25	53	43	0	35	0						
13	13	33	0	18	0						
0		25	0			0	10	137	0	124	0
	108			98	0		10			124	0

SHEET TOTALS

ITEM 203 EXCAVATION	222	CU. YD.
ITEM 203 EMBANKMENT	0	CU. YD.
ITEM 659 SEEDING & MULCHING	118	SQ. YD.

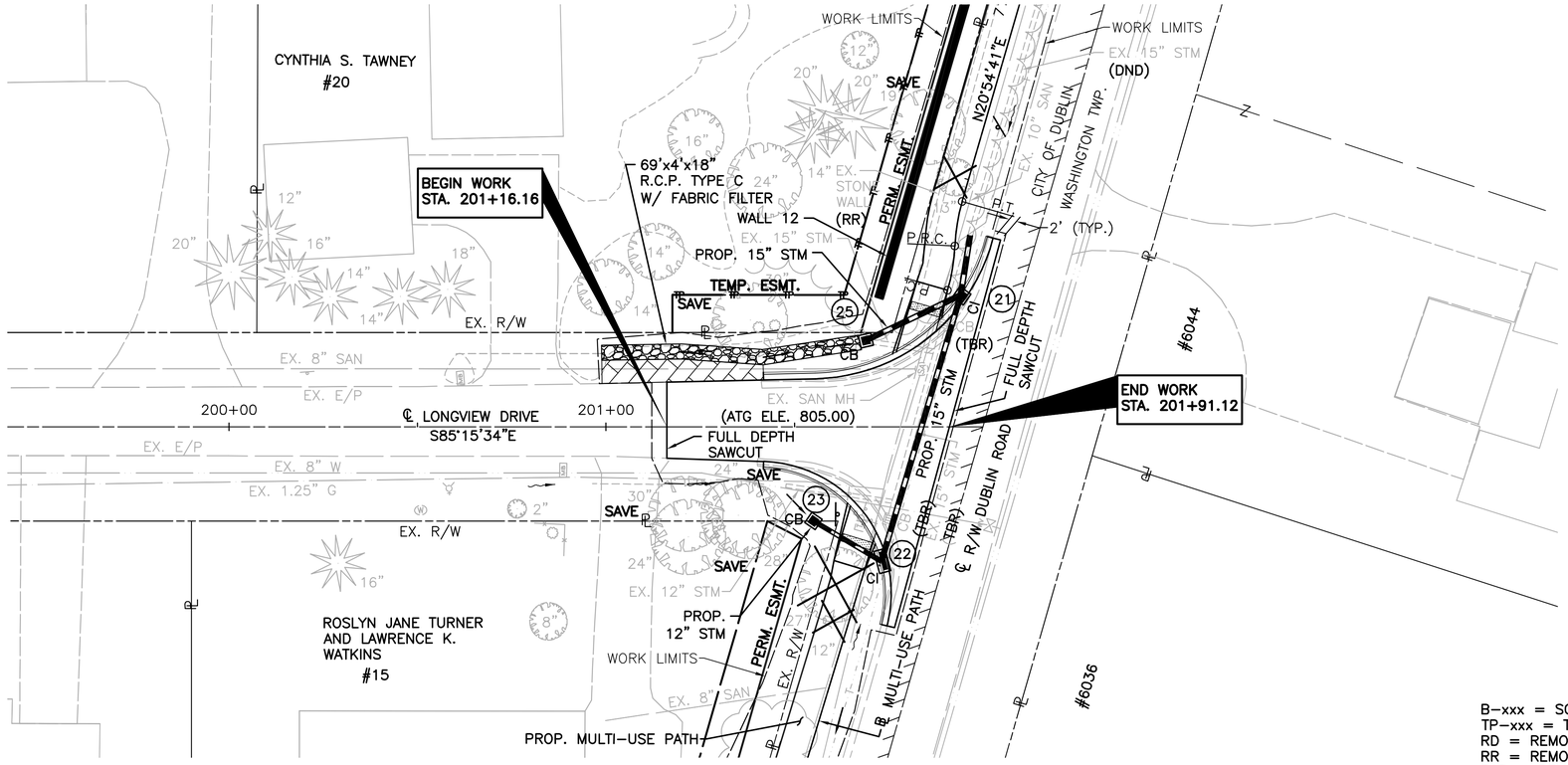
QUANTITIES CARRIED TO GENERAL SUMMARY

CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - GRANDVIEW DRIVE
STA. 100+83.15 TO STA. 101+85

DUBLIN ROAD SOUTH
MULTI-USE PATH

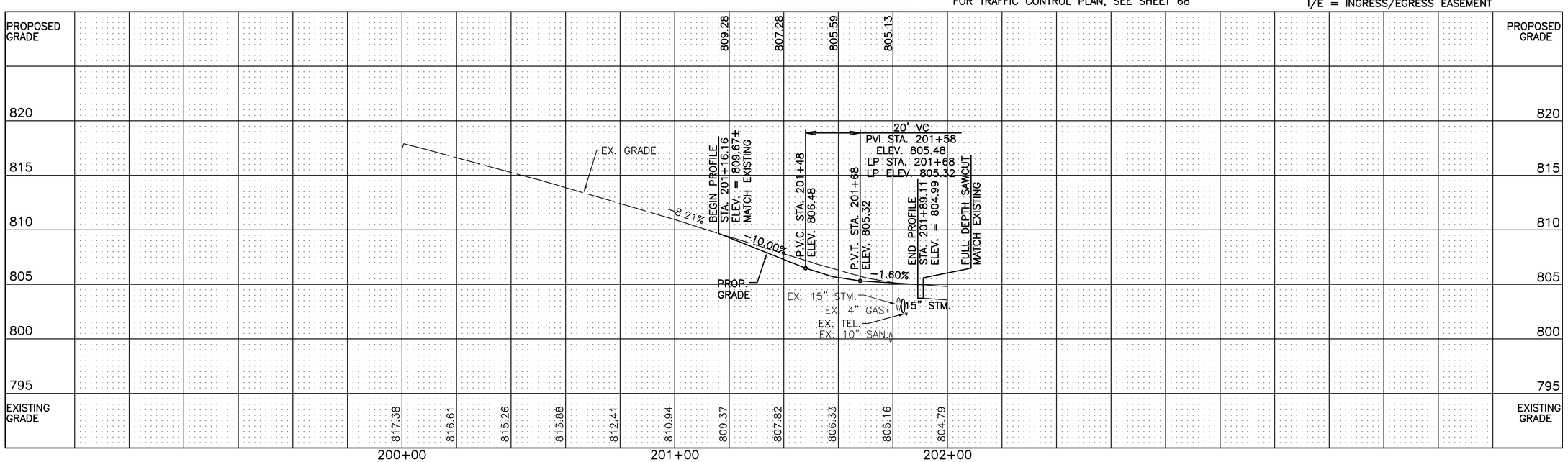
McDaniel, Aaron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Grandview.dwg LAST SAVED: 6/28/2013 10:25 AM LAST PLOTTED: 5/29/2015 4:40 PM



B–xxx = SOIL BORING
TP–xxx = TEST PIT
RD = REMOVE AND DELIVER TO THE OWNER
RR = REMOVE AND RELOCATE
RAR = REMOVE AND RESET
TBR = TO BE REMOVED
DND = DO NOT DISTURB
ATG = ADJUST TO GRADE
* = PER RECORD PLAN, CONTRACTOR TO LOCATE
OHWM = ORDINARY HIGH WATER MARK
G.U. ESMT = GENERAL UTILITY EASEMENT
DRN. ESMT = DRAINAGE EASEMENT
I/E = INGRESS/EGRESS EASEMENT

FOR MULTI–USE PATH PLAN AND PROFILE, SEE SHEET 16
FOR STORM SEWER PROFILES, SEE SHEET 49
FOR GRADING PLAN, SEE SHEET 57
FOR TREE PRESERVATION PLAN, SEE SHEET 63
FOR TRAFFIC CONTROL PLAN, SEE SHEET 68

– RELOCATED STONE WALL



CALCULATED CNK
CHECKED TJS

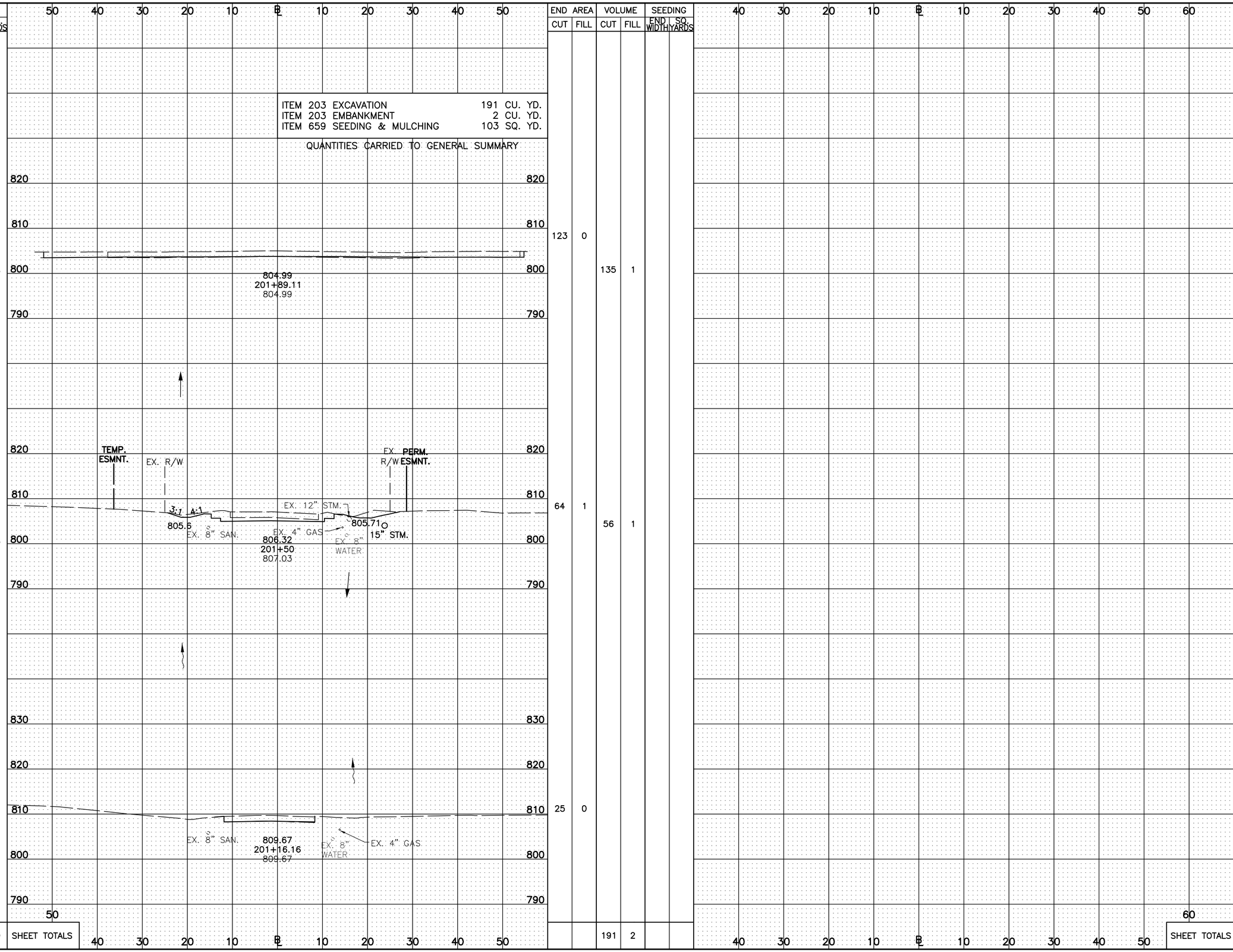
SCALE IN FEET 0 20 40

PLAN AND PROFILE - LONGVIEW DRIVE

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp18.dwg PLAN AND PROFILE – LONGVIEW DRIVE Last Saved: Dec 04, 2014 11:34 AM Plotted: May 29, 2015 4:40 PM

SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	55	123	0	135	1						
25	48	64	1	56	1						
0		25	0								
	90 SHEET TOTALS			191	2						



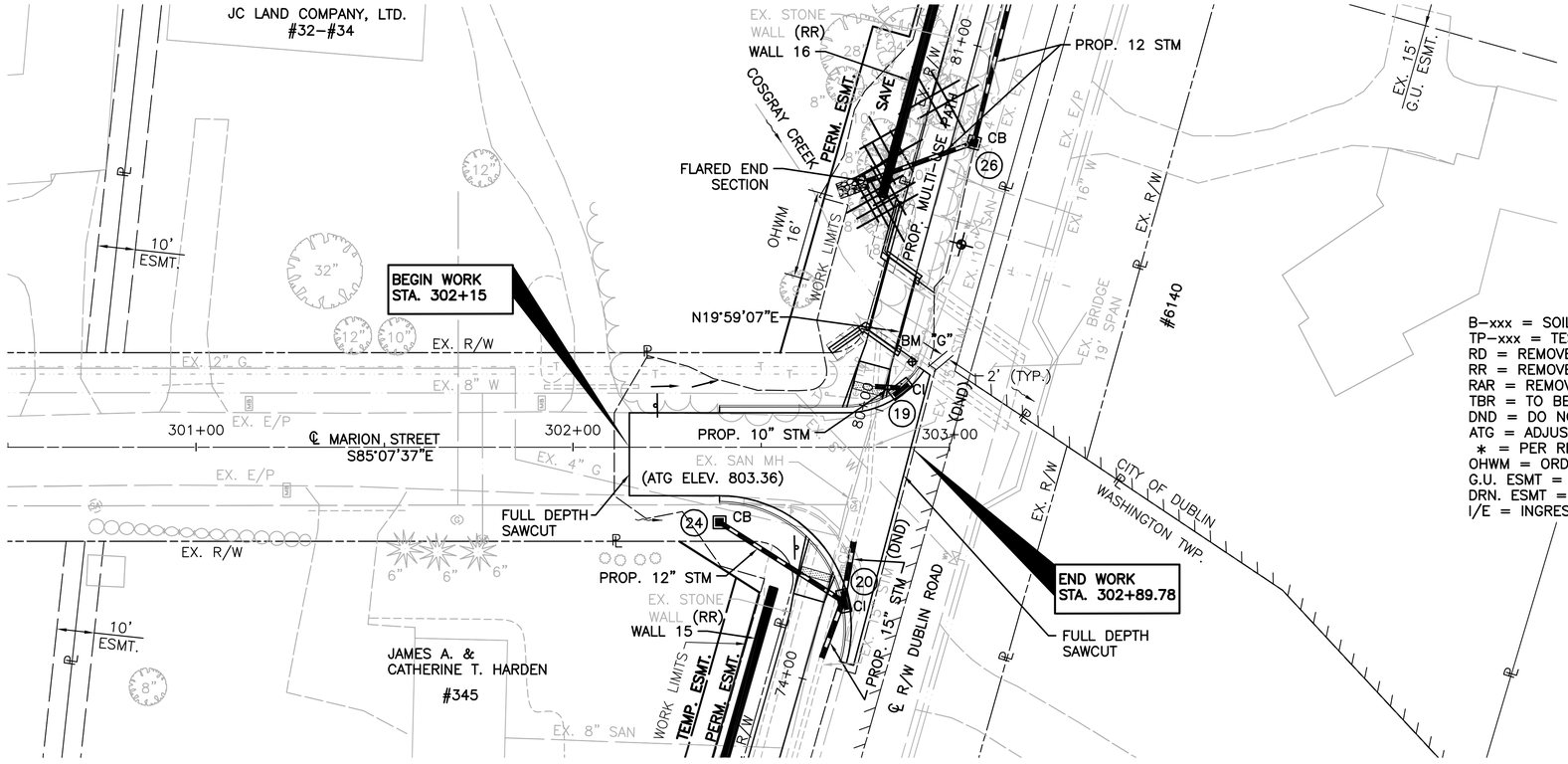
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL

CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - LONGVIEW DRIVE
STA. 201+16.16 TO STA. 201+89.11

DUBLIN ROAD SOUTH
MULTI-USE PATH

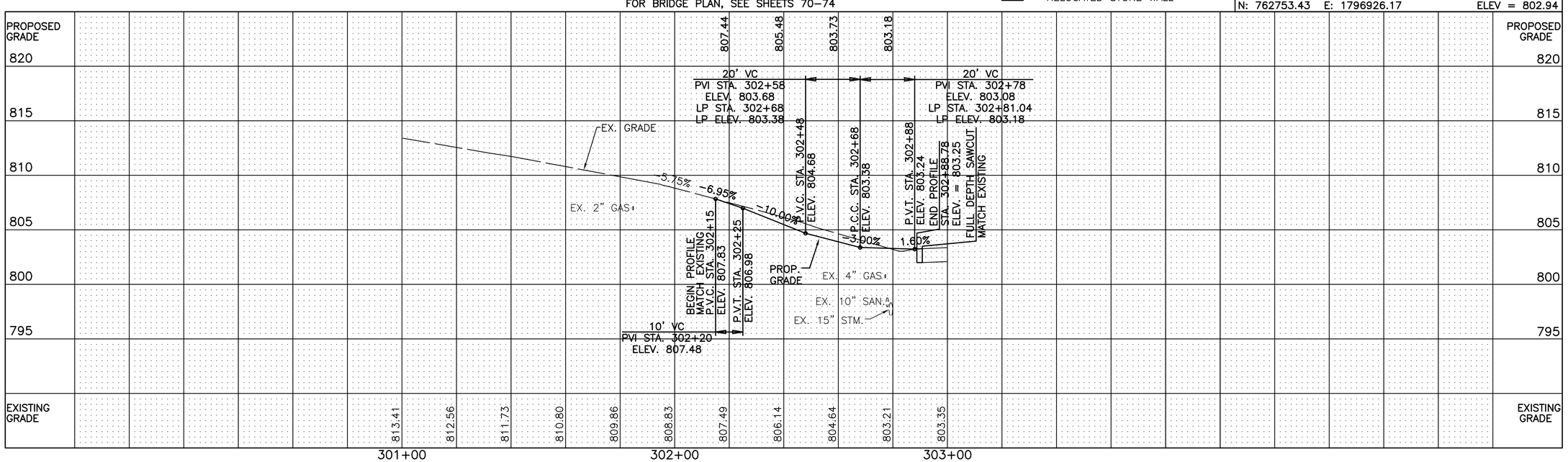
McDaniel, Arron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Longview.dwg LAST SAVED: 6/28/2013 10:27 AM LAST PLOTTED: 5/29/2015 4:40 PM



FOR MULTI–USE PATH PLAN AND PROFILE, SEE SHEET 17
FOR STORM SEWER PROFILES, SEE SHEETS 49–50
FOR GRADING PLAN, SEE SHEET 58
FOR TREE PRESERVATION PLAN, SEE SHEET 64
FOR TRAFFIC CONTROL PLAN, SEE SHEET 69
FOR BRIDGE PLAN, SEE SHEETS 70–74

▬ – RELOCATED STONE WALL

BM "G": CHISELED SQUARE ON THE SOUTHWEST WINGWALL OF A CULVERT ON THE NORTH SIDE OF MARION STREET, BEING 16 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT–OF–WAY.
N: 762753.43 E: 1796926.17 ELEV = 802.94



CALCULATED CNK
CHECKED TJS

SCALE IN FEET 0 20 40

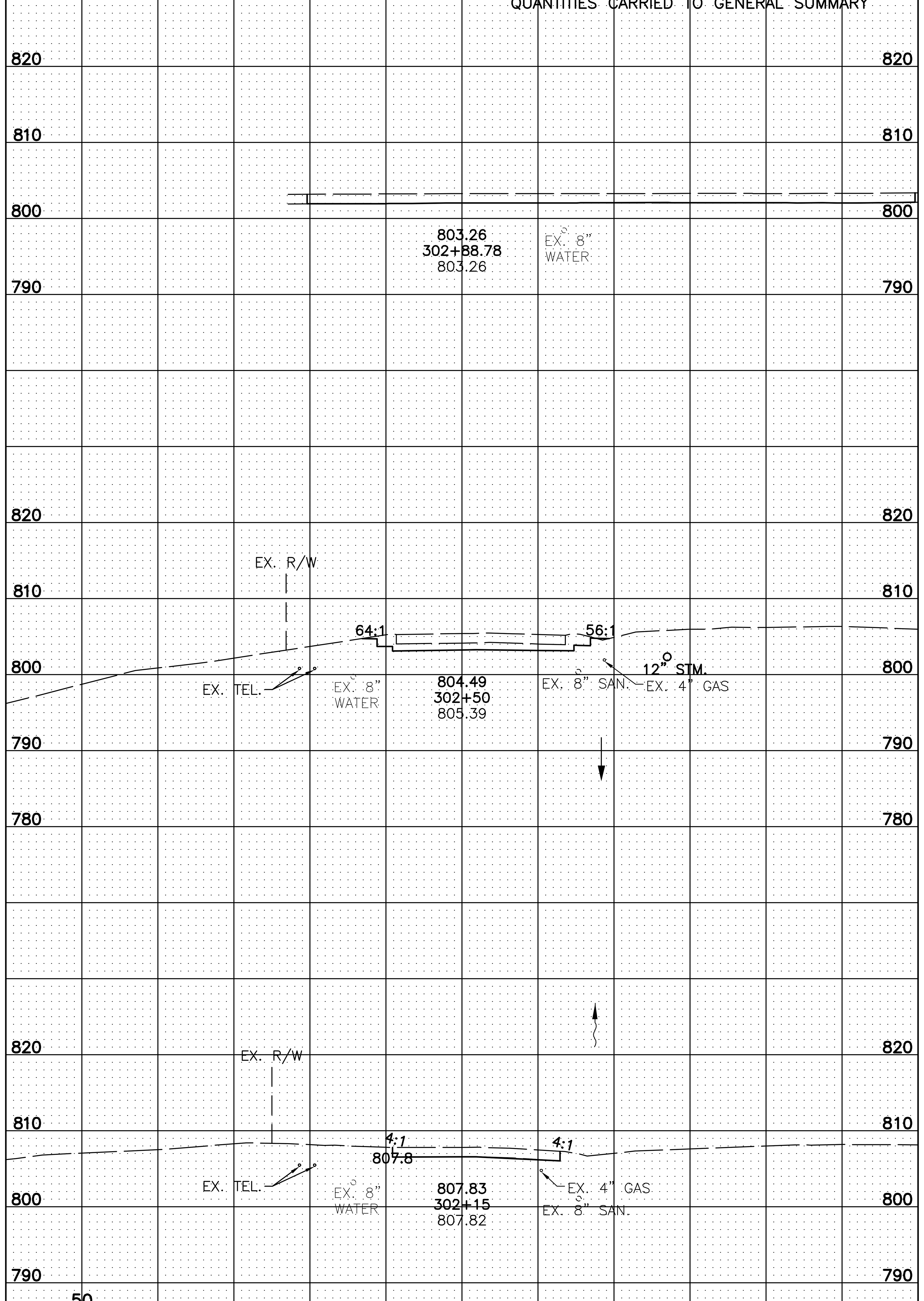
PLAN AND PROFILE - MARION STREET

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, AARON u:\173608736\design\plan_set\rings to waterford\Plan Prof\173608736pp19.dwg PLAN AND PROFILE - MARION STREET Last Saved: Dec 05, 2014 2:59 PM Plotted: May 29, 2015 4:40 PM

ITEM			QUANTITY
ITEM 203	EXCAVATION	169	CU. YD.
ITEM 203	EMBANKMENT	0	CU. YD.
ITEM 659	SEEDING & MULCHING	38	SQ. YD.

QUANTITIES CARRIED TO GENERAL SUMMARY



STATION	SEEDING END WIDTH	SEEDING SQ. YARDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
302+88.78	0	20	99	0		
					113	0
302+50	9	18	58	0		
					56	0
302+15	0		28	0		
SHEET TOTALS		38			169	0

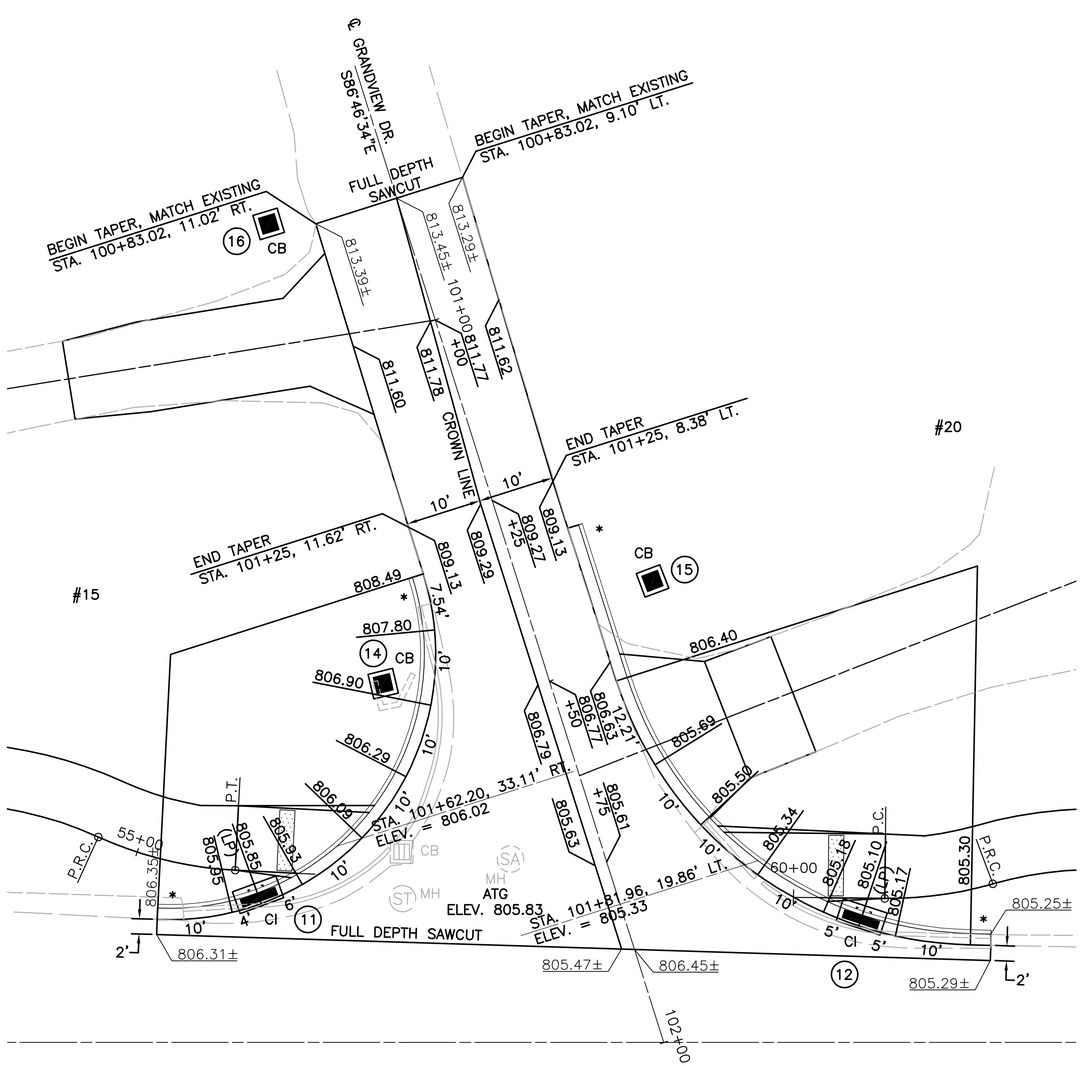
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
SHEET TOTALS			

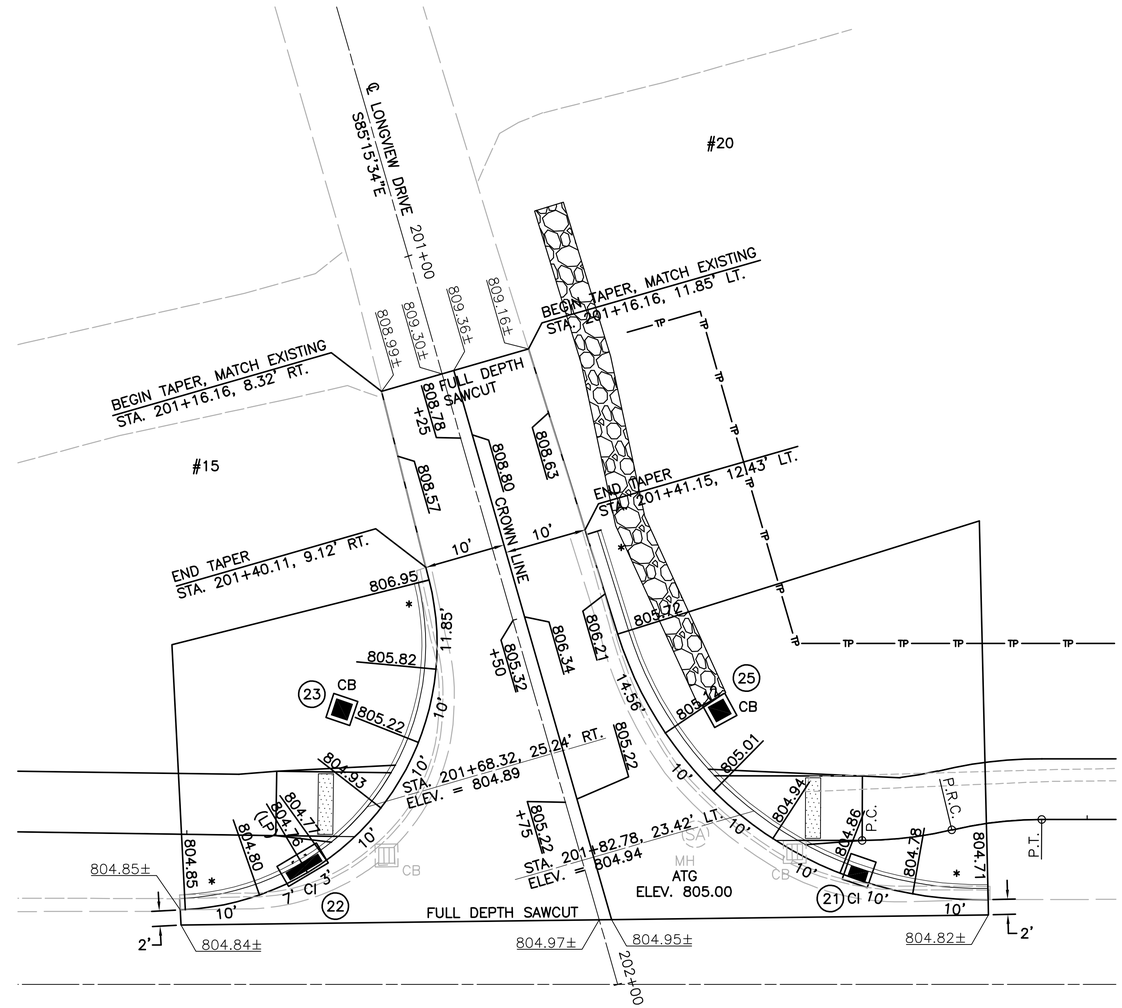
CALCULATED CNK
CHECKED TJS

CROSS SECTIONS - MARION STREET
STA. 302+15 TO STA. 302+88.78

DUBLIN ROAD SOUTH
MULTI-USE PATH

McDaniel, Arron u:\173608736\design\plan_set\rings to waterford\Xsection\Cross Sections - Marion.dwg LAST SAVED: 6/28/2013 11:03 AM LAST PLOTTED: 5/29/2015 4:41 PM





RADIUS RETURN
CURVE DATA AT E/P
Δ = 110°34'10"
R = 35'
T = 50.52'
L = 67.54'
P.C. STA. 101+31.49, 11.62' RT.
R.P. STA. 101+31.54, 46.62' RT.
P.T. STA. 101+64.33, 58.85' RT.

RADIUS RETURN
CURVE DATA AT E/P
Δ = 71°16'56"
R = 50'
T = 35.85'
L = 62.21'
P.C. STA. 101+52.55, 8.38' LT.
R.P. STA. 101+52.55, 58.38' LT.
P.T. STA. 101+99.93, 42.45' LT.

RADIUS RETURN
CURVE DATA AT E/P
Δ = 101°15'11"
R = 35'
T = 42.65'
L = 61.85'
P.C. STA. 201+41.82, 9.17' RT.
R.P. STA. 201+40.67, 44.15' RT.
P.T. STA. 201+74.75, 52.11' RT.

RADIUS RETURN
CURVE DATA AT E/P
Δ = 73°58'50"
R = 50'
T = 37.66'
L = 64.56'
P.C. STA. 201+55.55, 12.76' LT.
R.P. STA. 201+54.40, 62.75' LT.
P.T. STA. 202+02.76, 50.06' LT. =
STA. 70+35.14, 9.99' RT.

– DETECTABLE WARNINGS

ATG = ADJUST TO GRADE

* TRANSITION CURB HEIGHT FROM 0" TO 6" IN 10 FEET

NOTE: THE EDGE OF PAVEMENT SHALL BE FLUSH WITH THE GUTTER (NO 1/8" LIP) AT THE CURB RAMPS.

NOTE: ALL ELEVATIONS ARE TOP OF PAVEMENT

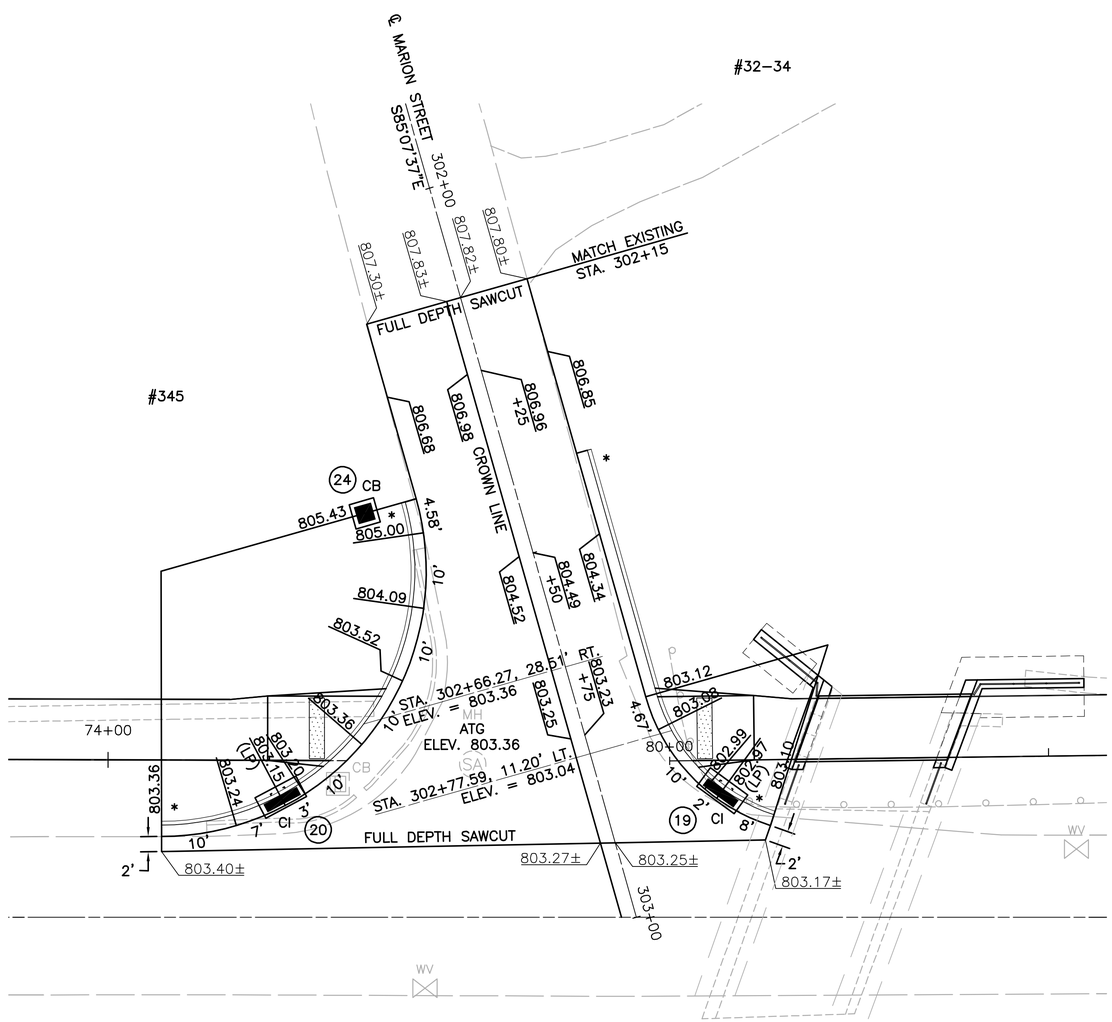
SCALE IN FEET 0 10 20

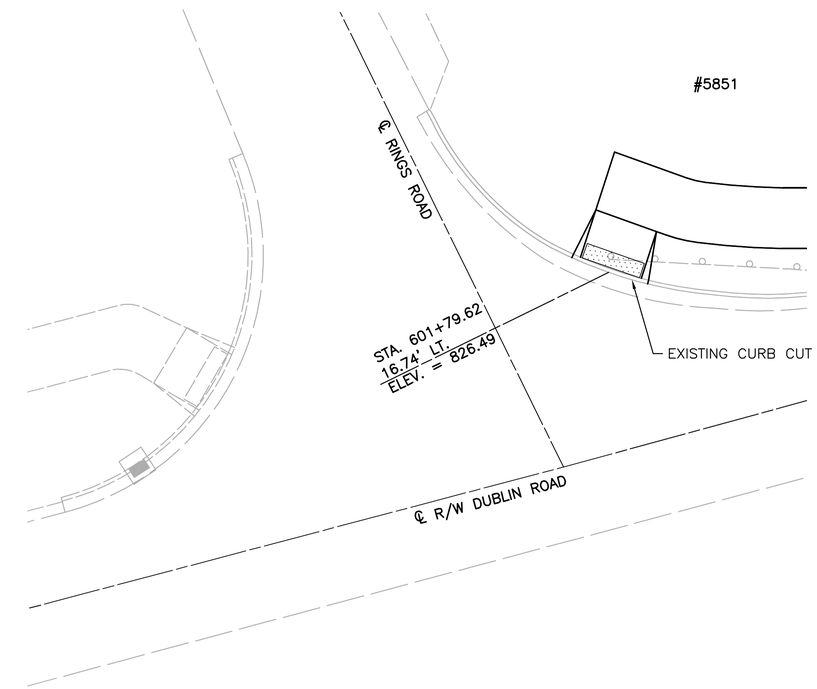
CALCULATED CNK
CHECKED TJS

INTERSECTION DETAILS
GRANDVIEW DRIVE AND LONGVIEW DRIVE

DUBLIN ROAD SOUTH
MULTI-USE PATH

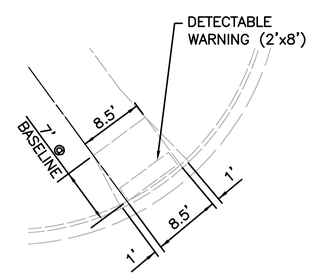
MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\173408736d01.dwg INTERSECTION DETAILS Last Saved: Jun 28, 2013 8:40 AM Plotted: May 29, 2015 4:41 PM





RADIUS RETURN
CURVE DATA AT E/P
Δ = 105°43'01"
R = 35'
T = 46.21'
L = 64.58'
P.C. STA. 302+38.94, 12.89' RT.
R.P. STA. 302+38.94, 47.89' RT.
P.T. STA. 302+72.64, 57.37' RT.

RADIUS RETURN
CURVE DATA AT E/P
Δ = 56°32'30"
R = 25'
T = 13.45'
L = 24.67'
P.C. STA. 302+72.34, 9.11' LT.
R.P. STA. 302+72.34, 34.11' LT.
P.T. STA. 302+93.19, 20.33' LT.



CURB RAMP DIMENSIONS

– DETECTABLE WARNINGS

ATG = ADJUST TO GRADE

* TRANSITION CURB HEIGHT FROM 0" TO 6" IN 10 FEET

NOTE: THE EDGE OF PAVEMENT SHALL BE FLUSH WITH THE GUTTER (NO 1/8" LIP) AT THE CURB RAMPS.

NOTE: ALL ELEVATIONS ARE TOP OF PAVEMENT

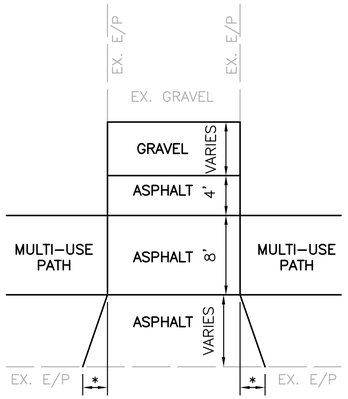
SCALE IN FEET 0 10 20

CALCULATED CNK
CHECKED TJS

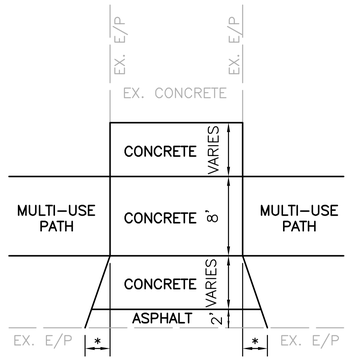
INTERSECTION DETAILS/CURB RAMP DETAILS-RINGS ROAD/MARION STREET

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\173408736id02.dwg INTERSECTION DETAILS Last Saved: Jun 28, 2013 8:47 AM Plotted: May 29, 2015 4:41 PM

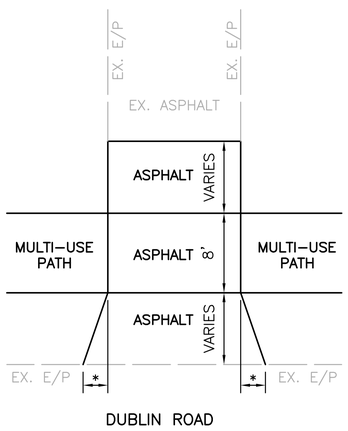


GRAVEL DRIVE DETAIL



CONCRETE DRIVE DETAIL

* – TAPER WIDTHS VARY



ASPHALT DRIVE DETAIL

CONCRETE DRIVES

ITEM 452 – 6" NON-REINFORCED CONCRETE

ITEM 304 – 6" AGGREGATE BASE

ITEM 204 – SUBGRADE COMPACTION

GRAVEL DRIVES

ITEM 304 – 8" AGGREGATE BASE

ITEM 204 – SUBGRADE COMPACTION

ASPHALT DRIVES

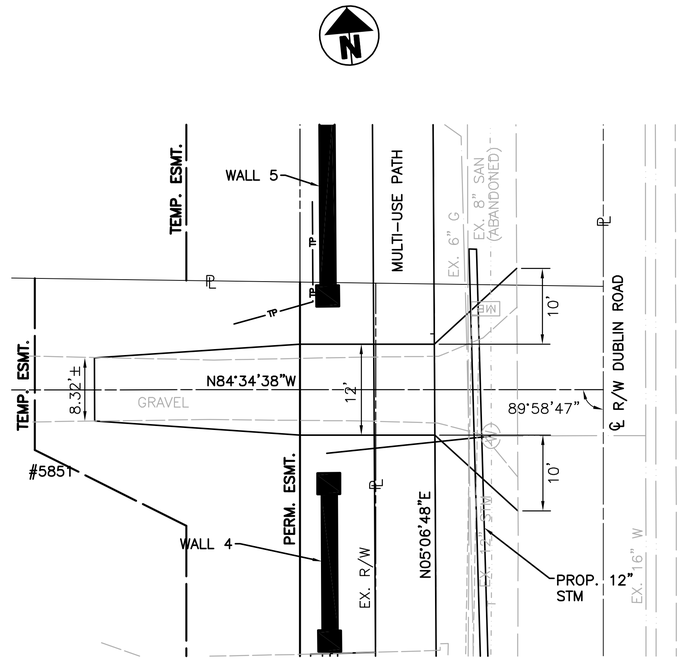
ITEM 448 – 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, MEDIUM TRAFFIC

ITEM 301 – 3" ASPHALT CONCRETE BASE

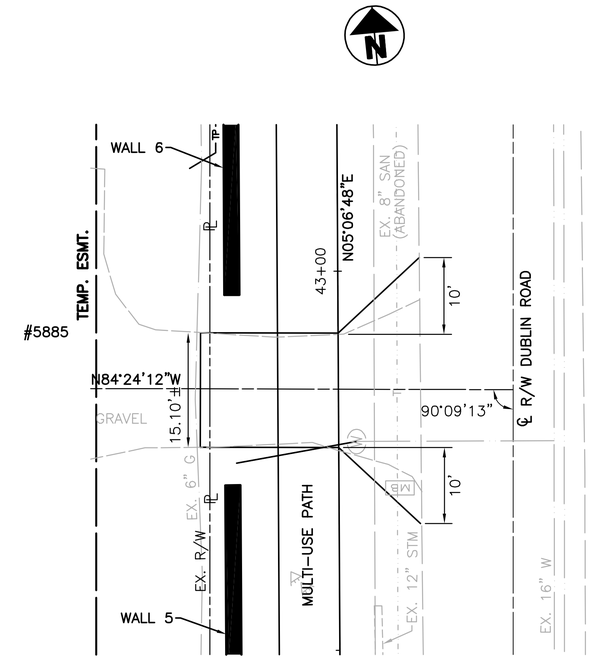
ITEM 304 – 6" AGGREGATE BASE

ITEM 204 – SUBGRADE COMPACTION

NOTE: FOR PAVEMENT BUILD UP FOR DRIVE AT STA. 49+75.55 SEE SHEET 43

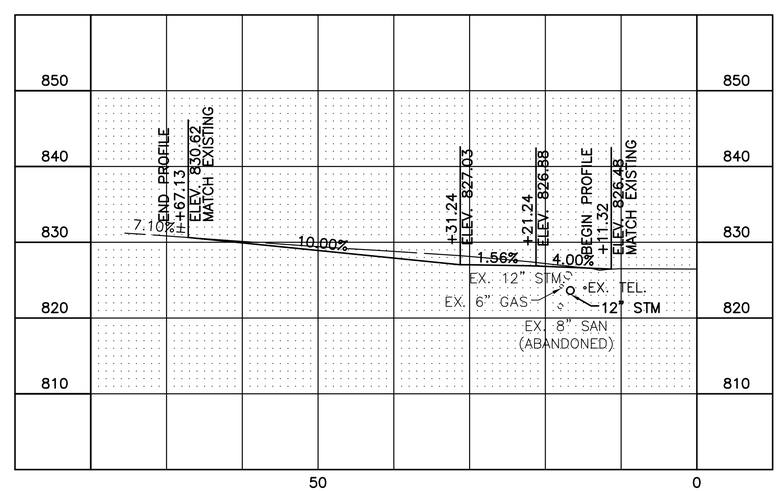


STA. 41+42.63, LT.
PLAN

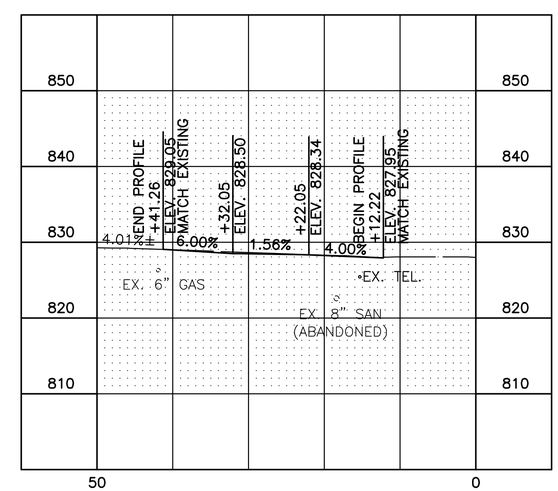


STA. 42+84.43, LT.
PLAN

– RELOCATED STONE WALL



STA. 41+42.63, LT.
PROFILE



STA. 42+84.43, LT.
PROFILE

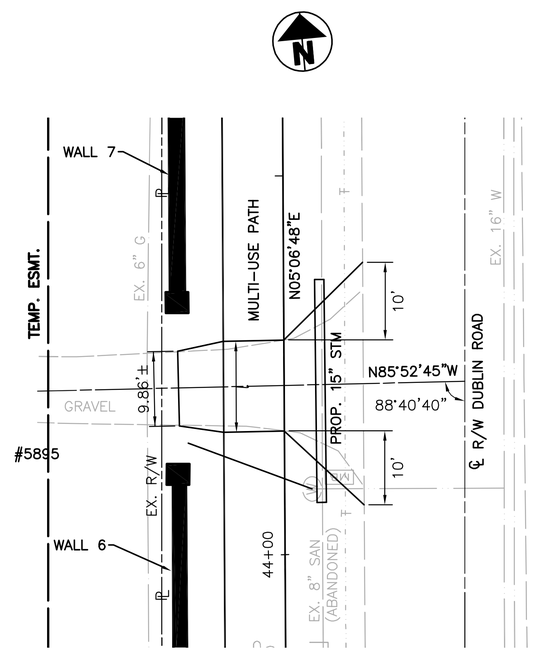
SCALE IN FEET 0 10 20

CALCULATED CNK
CHECKED TJS

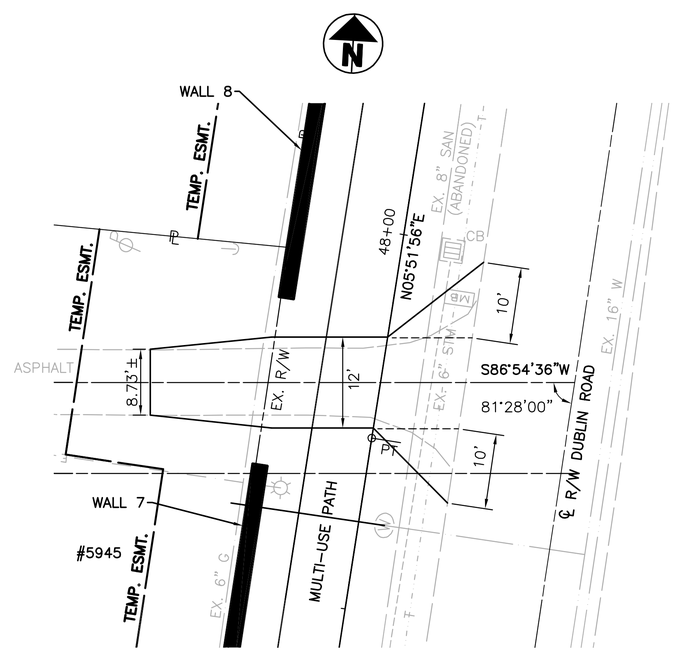
DRIVEWAY DETAILS

DUBLIN ROAD SOUTH
MULTI-USE PATH

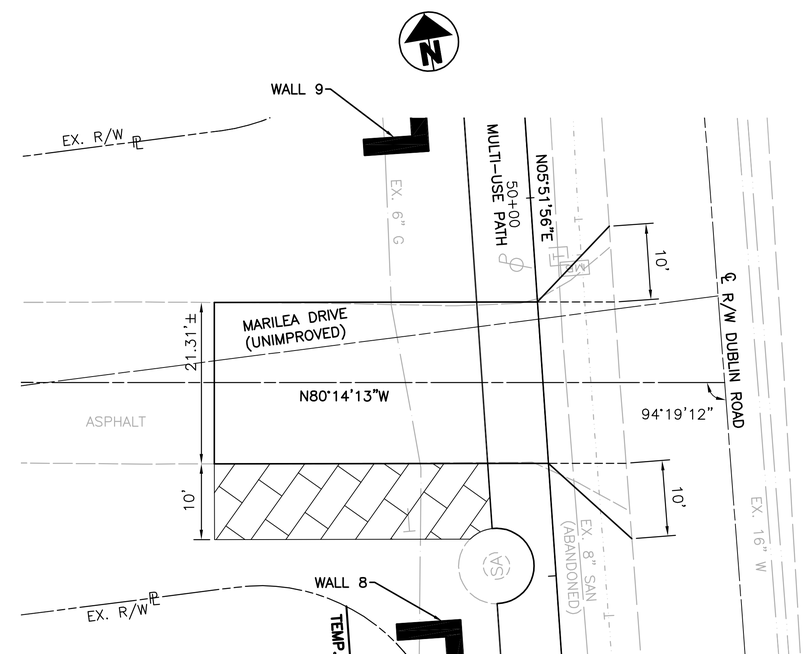
MCDANIEL, ARRON u:\73608736\design\plan_set\rings to waterford\Details\73408736dd04.dwg DRIVEWAY DETAILS Last Saved: Dec 05, 2014 3:02 PM AMCDANIEL Plotted: May 29, 2015 4:41 PM



STA. 44+22.33, LT.
PLAN



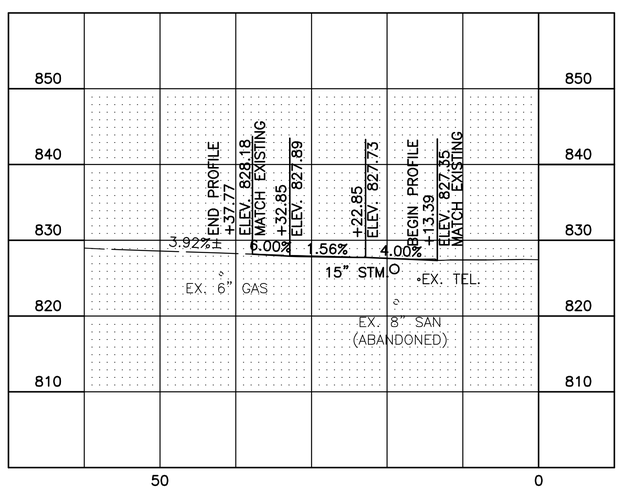
STA. 47+80.23, LT.
PLAN



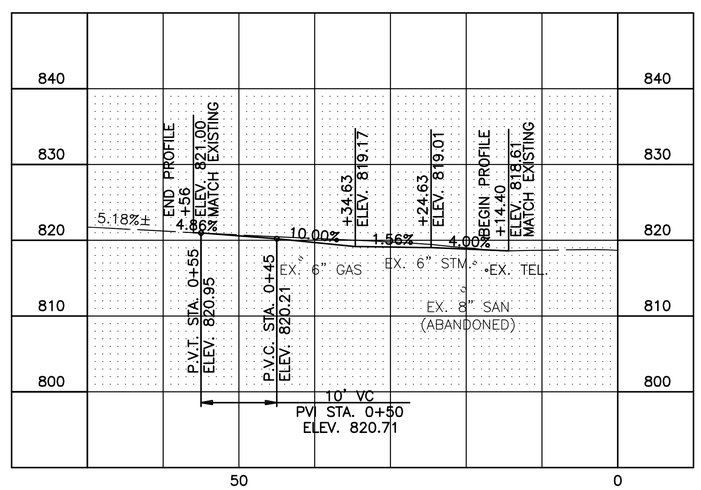
STA. 49+75.55, LT.
PLAN

- RELOCATED STONE WALL
- GRASS PAVERS, AS PER PLAN

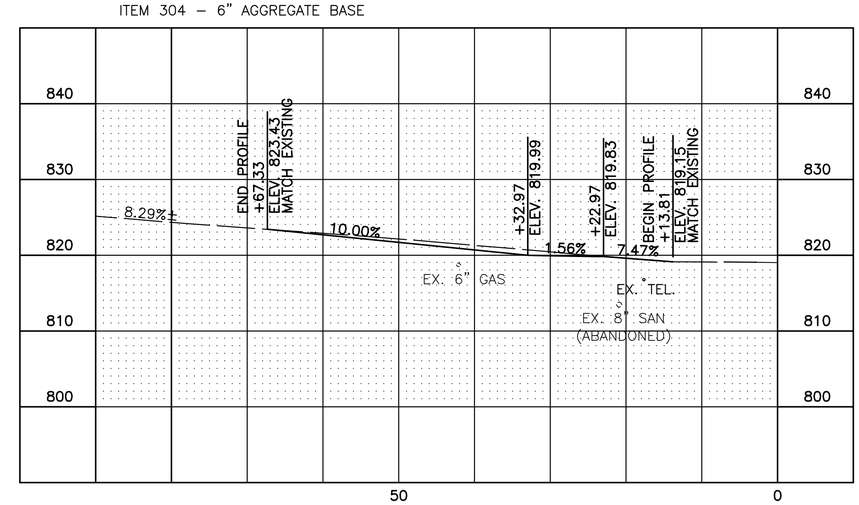
PAVEMENT BUILD UP, THIS DRIVE ONLY
ITEM 448 – 2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64–22, MEDIUM TRAFFIC
ITEM 301 – 4" BITUMINOUS AGGREGATE BASE, PG64–22
ITEM 304 – 6" AGGREGATE BASE



STA. 44+22.33, LT.
PROFILE



STA. 47+80.23, LT.
PROFILE



STA. 49+75.55, LT.
PROFILE

SCALE IN FEET 0 10 20

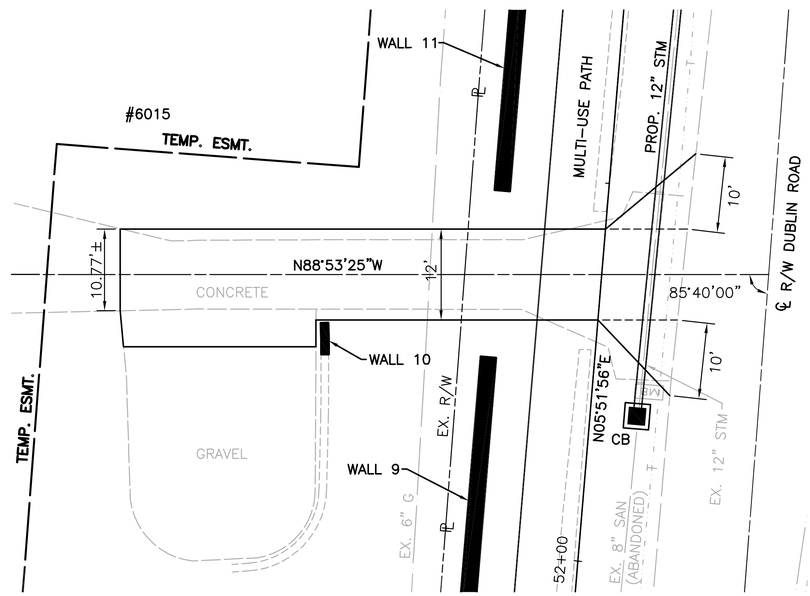
CALCULATED CNK
CHECKED TJS

DRIVEWAY DETAILS

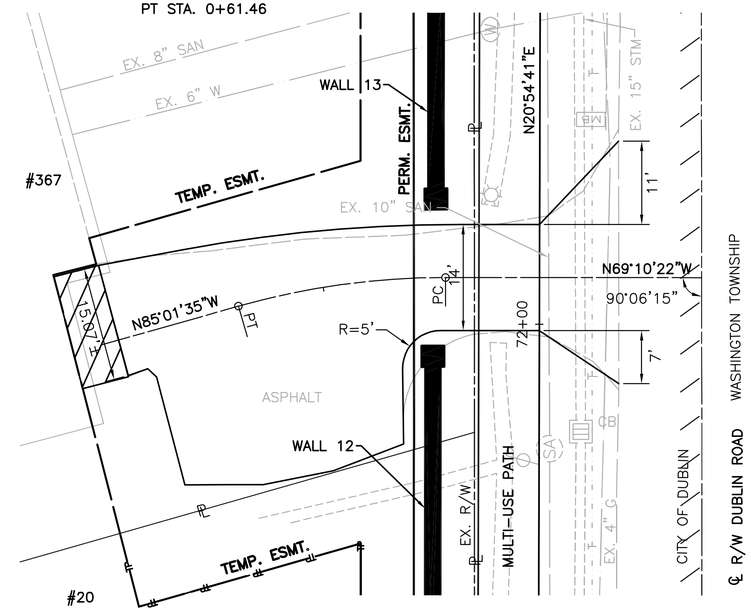
DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Details\173608736dd05.dwg DRIVEWAY DETAILS Last Saved: Dec 05, 2014 10:59 AM AMCDANIEL Plotted: May 29, 2015 4:41 PM

DRIVE 72+06.17
CURVE DATA
P.I. STA. 0+47.72
Δ = 15°51'13"
Dc = 57°17'45"
R = 100'
T = 13.92'
L = 27.67'
E = 0.96'
PC STA. 0+33.79
PT STA. 0+61.46

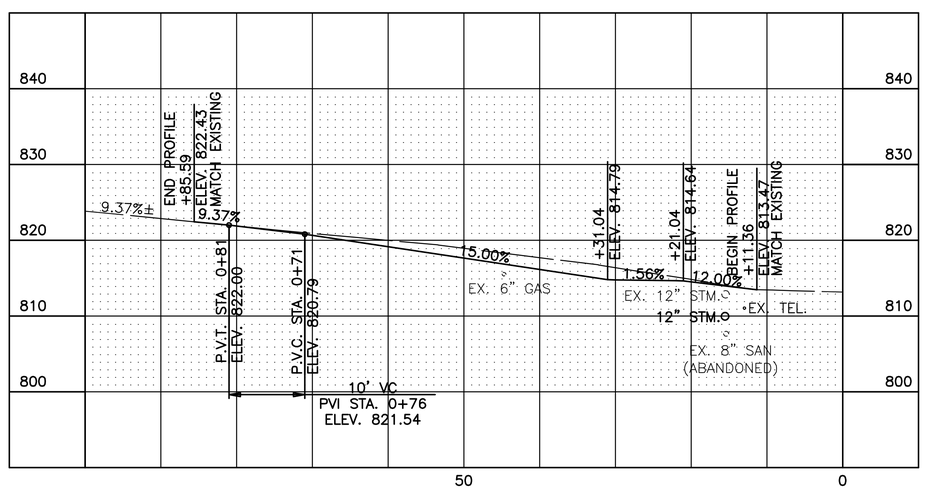


STA. 52+37.93, LT.
PLAN

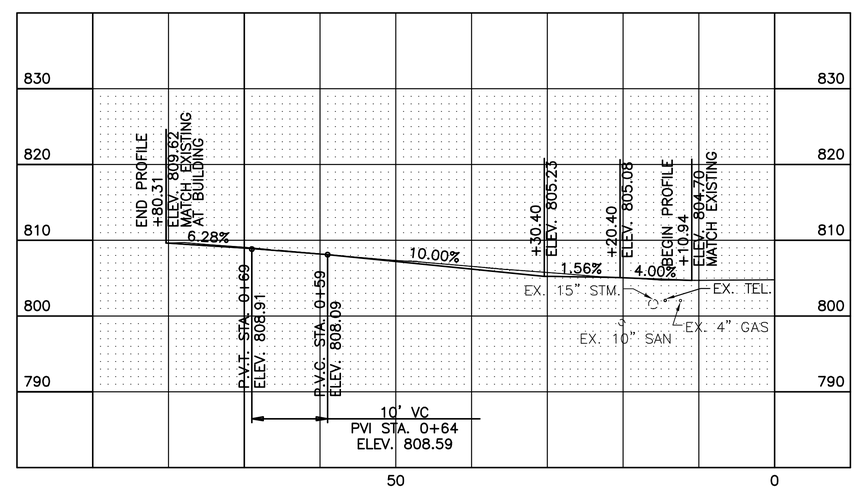


STA. 72+06.17, LT.
PLAN

– RELOCATED STONE WALL



STA. 52+37.93, LT.
PROFILE



STA. 72+06.17, LT.
PROFILE

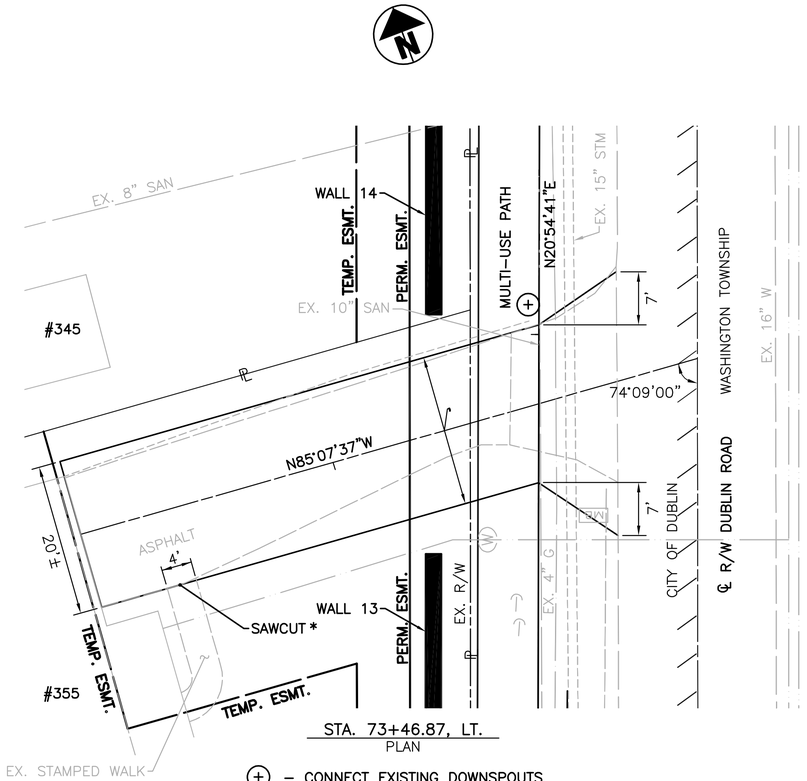
CALCULATED CNK
CHECKED TJS

0 10 20 SCALE IN FEET

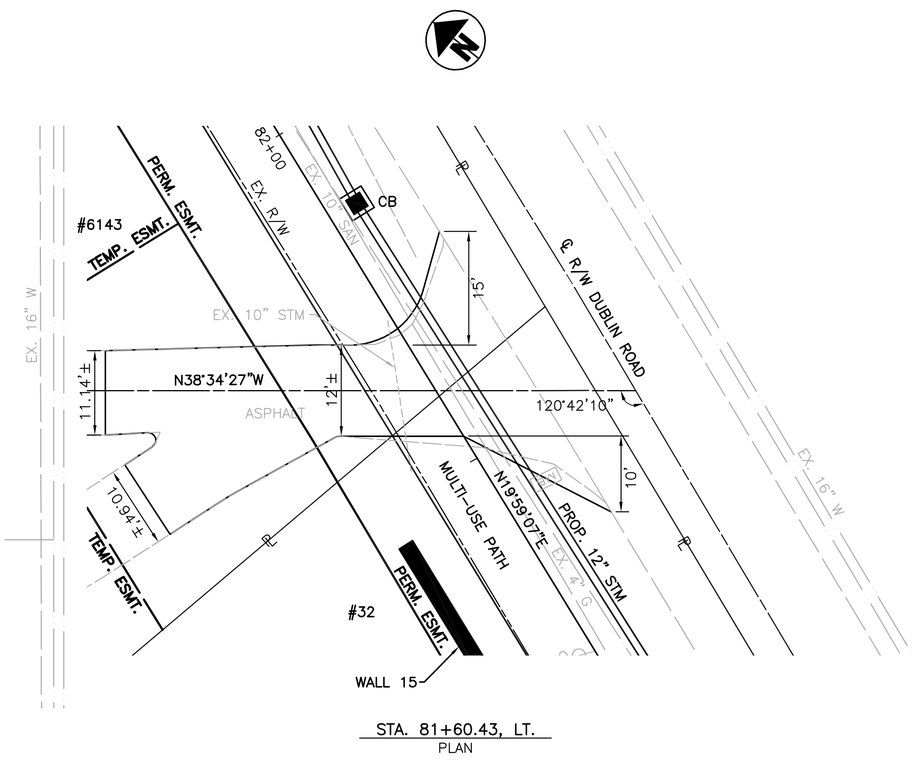
DRIVEWAY DETAILS

DUBLIN ROAD SOUTH
MULTI-USE PATH

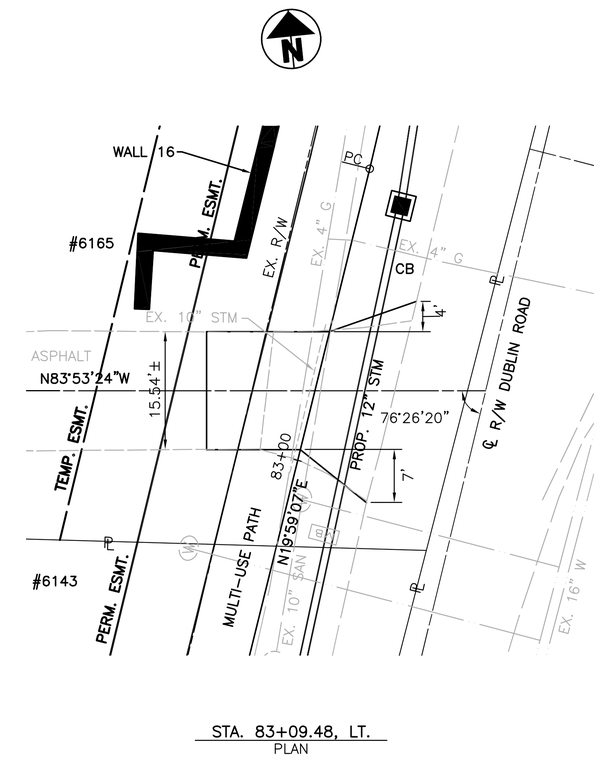
MCDANIEL, ARRON u:\73608736\design\plan_set\rings to waterford\Details\73408736d06.dwg DRIVEWAY DETAILS Last Saved: Dec 05, 2014 11:01 AM, AMCDANIEL Plotted: May 29, 2015 4:41 PM



STA. 73+46.87, LT.
PLAN



STA. 81+60.43, LT.
PLAN

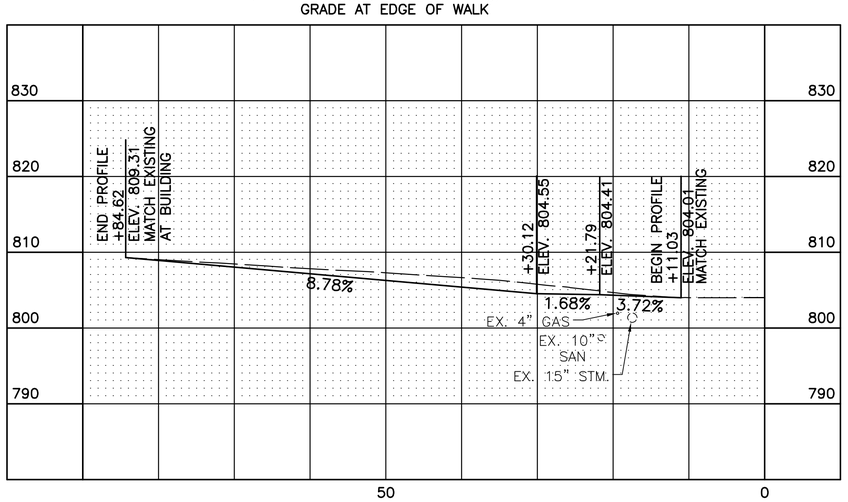


STA. 83+09.48, LT.
PLAN

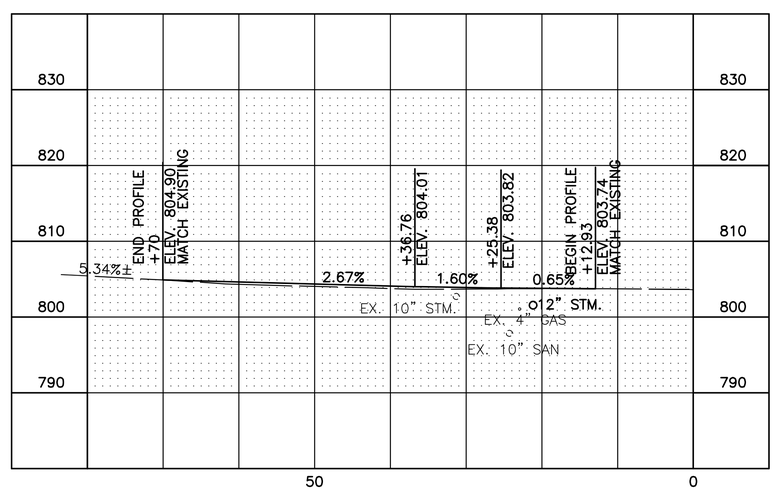
⊕ – CONNECT EXISTING DOWNSPOUTS TO EXISTING STORM SEWER

* – PROPOSED DRIVE TO MATCH GRADE AT EDGE OF WALK

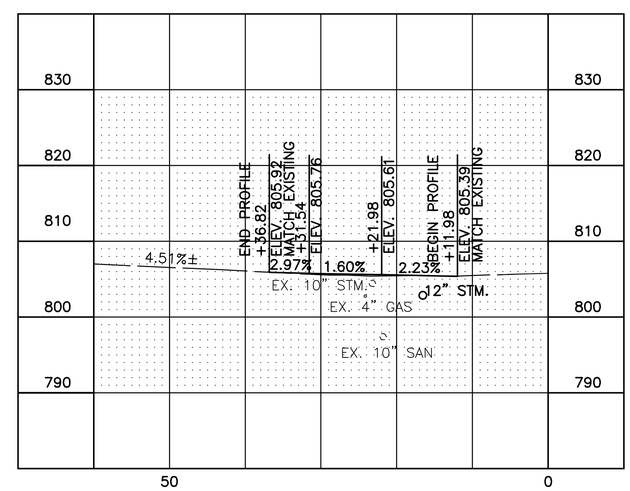
▬ – RELOCATED STONE WALL



STA. 73+46.87, LT.
PROFILE



STA. 81+60.43, LT.
PROFILE



STA. 83+09.48, LT.
PROFILE

SCALE IN FEET 0 10 20

CALCULATED CNK
CHECKED TJS

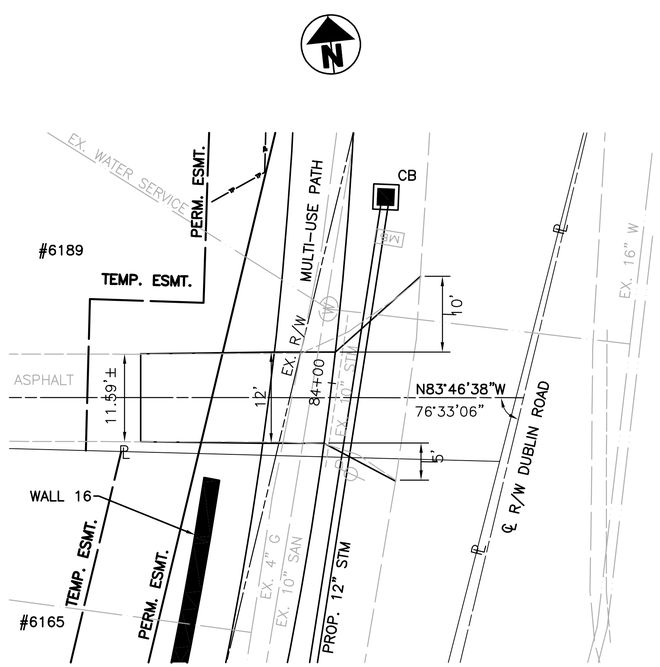
DRIVEWAY DETAILS

DUBLIN ROAD SOUTH
MULTI-USE PATH

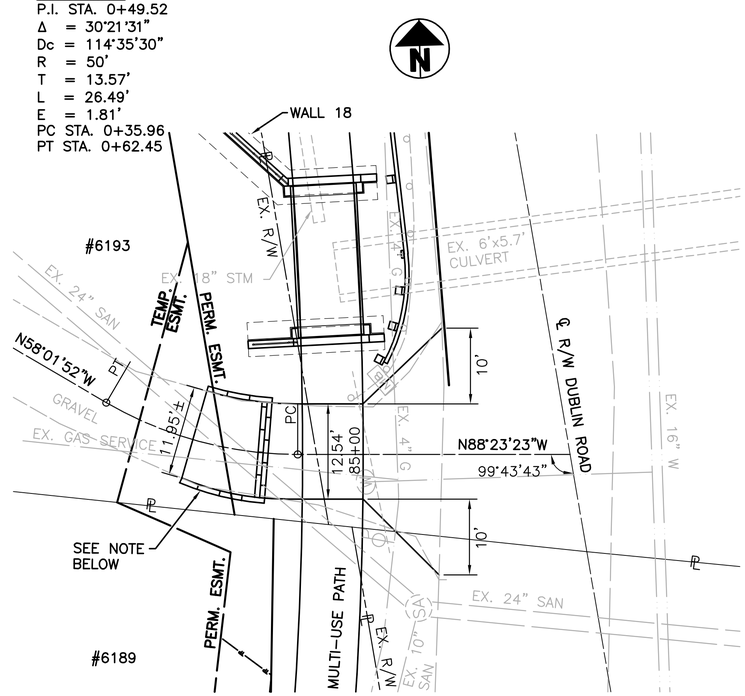
MCDANIEL, ARRON \u\173608736\design\plan_set\rings to waterford\Details\173408736dd07.dwg DRIVEWAY DETAILS Last Saved: Dec. 05, 2014 11:03 AM, AMCDANIEL Plotted: May. 29, 2015 4:42 PM

DRIVE 85+00
CURVE DATA
P.I. STA. 0+49.52
Δ = 30°21'31"
Dc = 114°35'30"
R = 50'
T = 13.57'
L = 26.49'
E = 1.81'
PC STA. 0+35.96
PT STA. 0+62.45

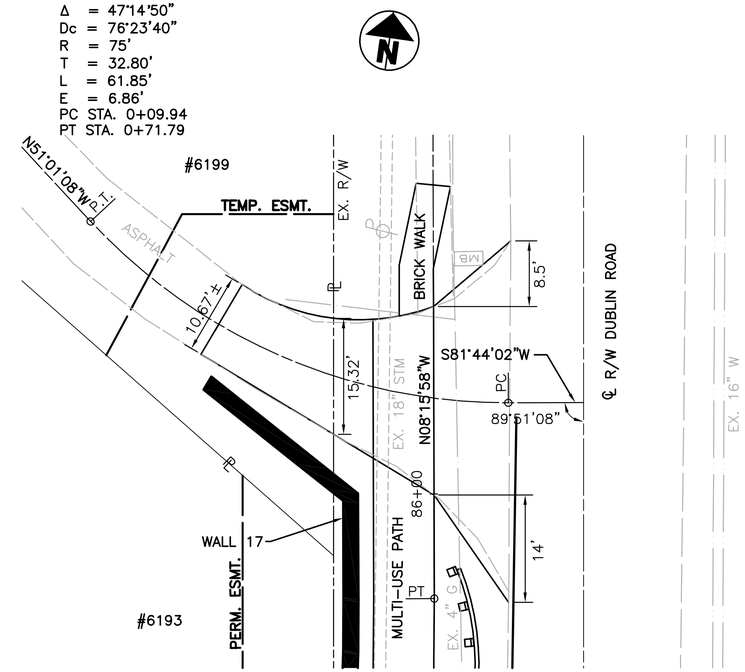
DRIVE 86+12
CURVE DATA
P.I. STA. 0+42.75
Δ = 47°14'50"
Dc = 76°23'40"
R = 75'
T = 32.80'
L = 61.85'
E = 6.86'
PC STA. 0+09.94
PT STA. 0+71.79



STA. 83+98.06, LT.
PLAN



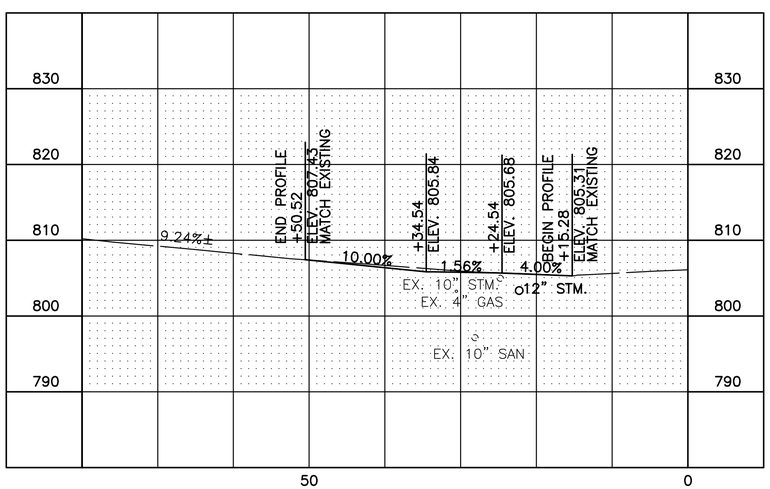
STA. 85+00, LT.
PLAN



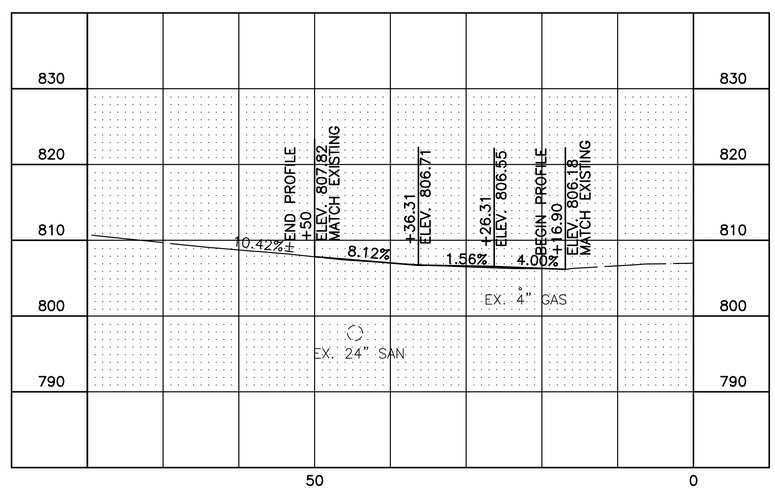
STA. 86+12, LT.
PLAN

NOTE: CONTRACTOR TO REMOVE EXISTING FLAGSTONE PAVERS AND PLACE THEM ALONG THE PROPOSED EDGE OF DRIVE AND AT THE GRAVEL/ASPHALT JOINT. PLACE 2 ROWS ACROSS DRIVE AS SHOWN. OWNER TO PROVIDE ADDITIONAL STONE AS NECESSARY.

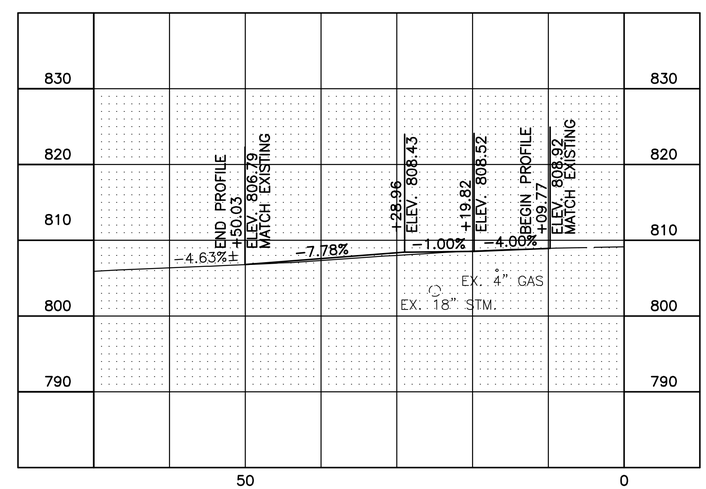
▬ – RELOCATED STONE WALL



STA. 83+98.06, LT.
PROFILE



STA. 85+00, LT.
PROFILE



STA. 86+12, LT.
PROFILE

SCALE IN FEET 0 10 20

CALCULATED CNK
CHECKED TJS

DRIVEWAY DETAILS

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Details\173408736dd08.dwg DRIVEWAY DETAILS Last Saved: Dec 05, 2014 11:05 AM, MCDANIEL Plotted: May 29, 2015 4:42 PM

STA. 101+00, RT.
PLAN

STA. 101+63.06, LT.
PLAN

STA. 101+00, RT.
PROFILE

STA. 102+37, LT.
PROFILE

0 10 20
SCALE IN FEET

CALCULATED CNK
CHECKED TJS

DRIVEWAY DETAILS

DUBLIN ROAD SOUTH
MULTI-USE PATH

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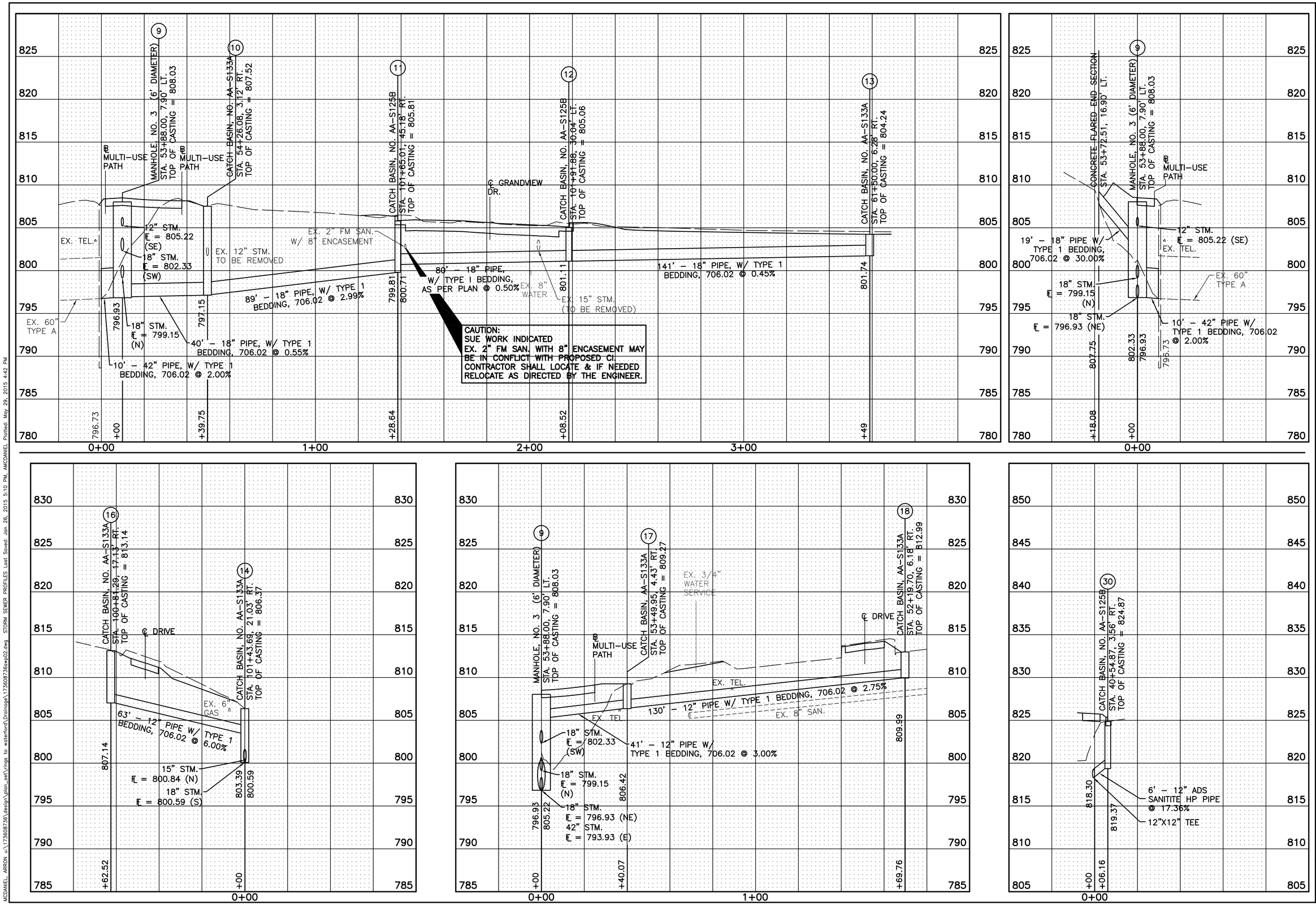
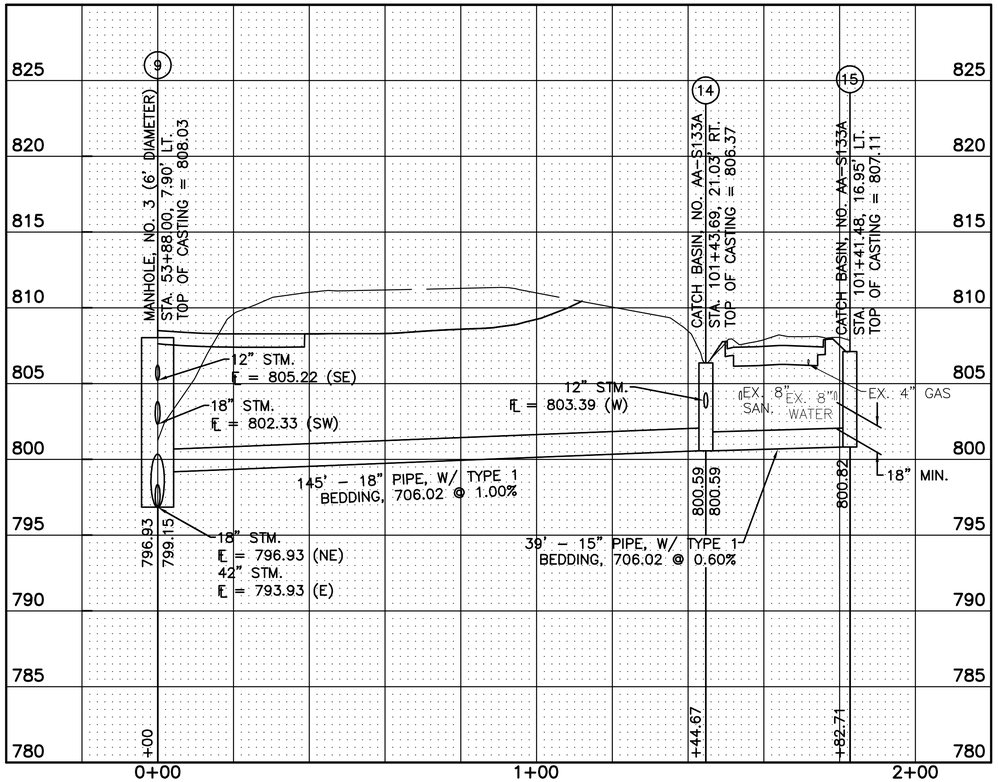


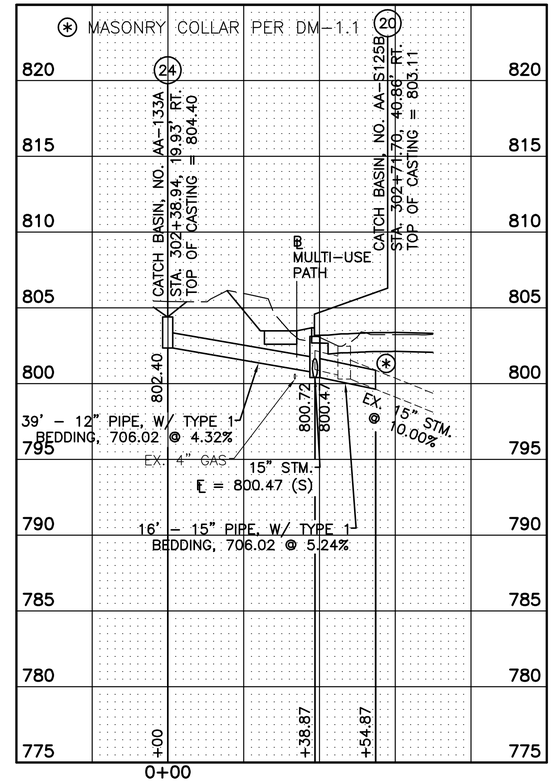
CALCULATED TJS
CHECKED BMH

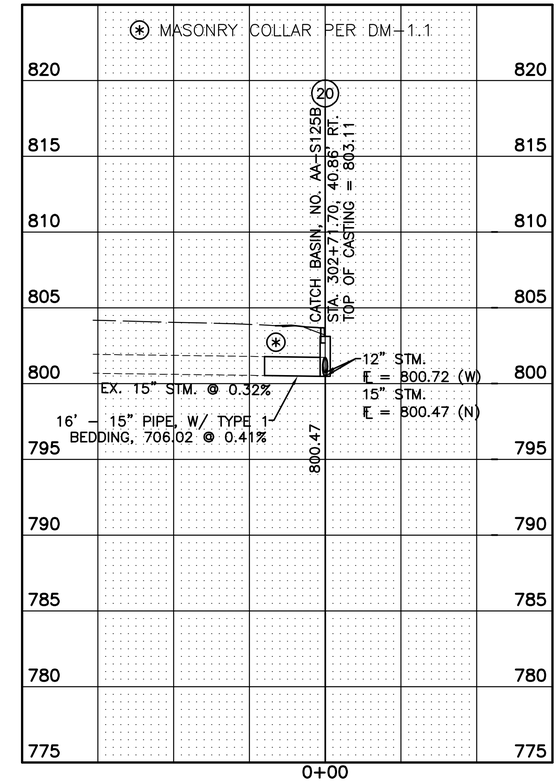
STORM SEWER PROFILES

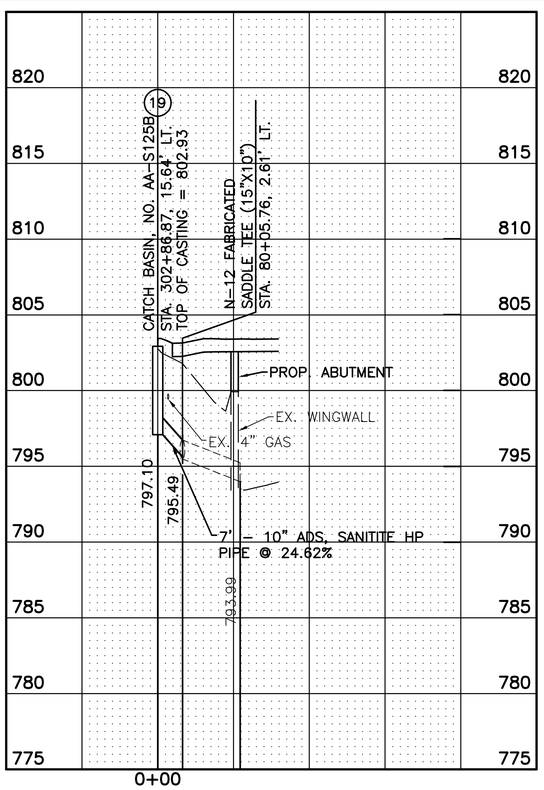
DUBLIN ROAD SOUTH
MULTI-USE PATH

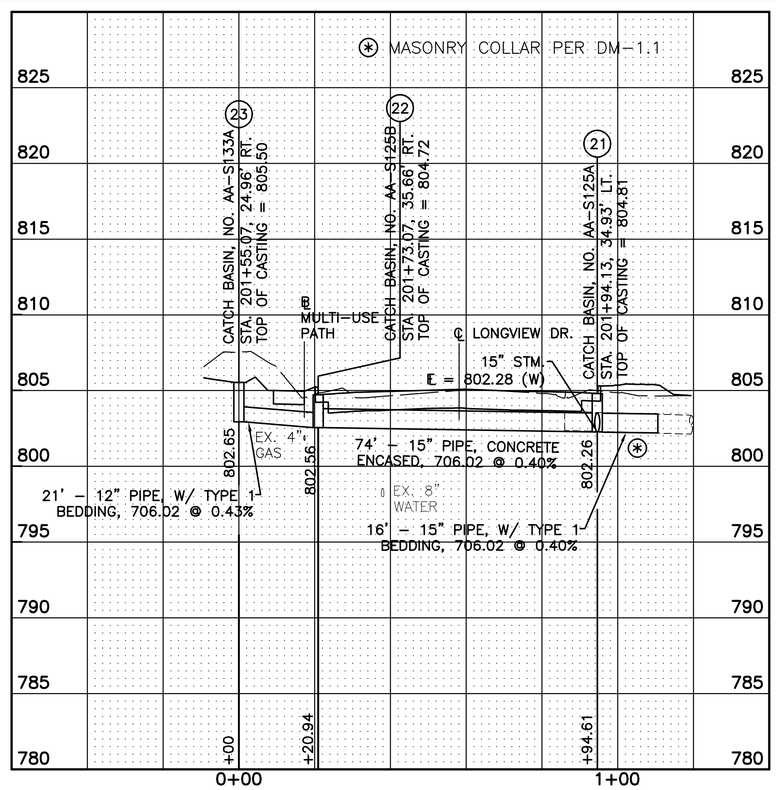
MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Drainage\173608736swp02.dwg STORM SEWER PROFILES Last Saved: Jan 26, 2015 5:10 PM, AMCDANIEL Plotted: May 29, 2015 4:42 PM

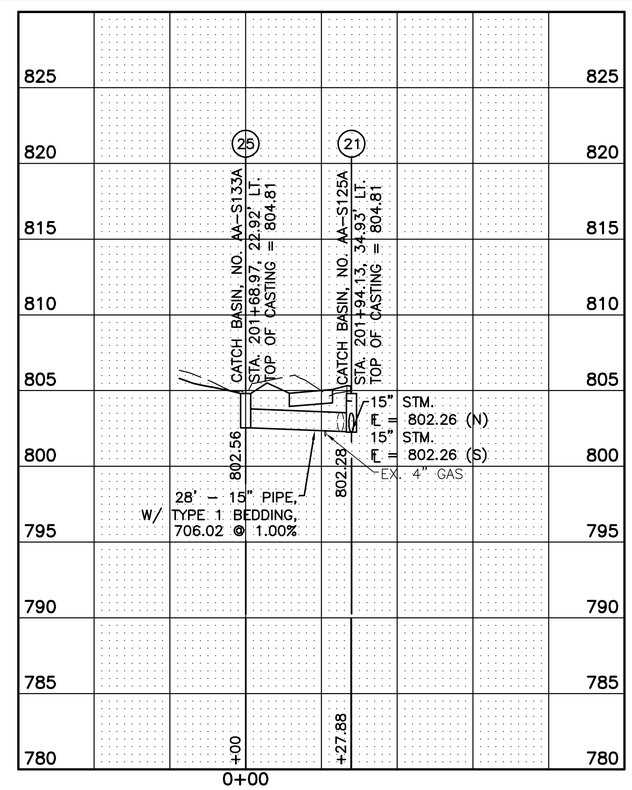










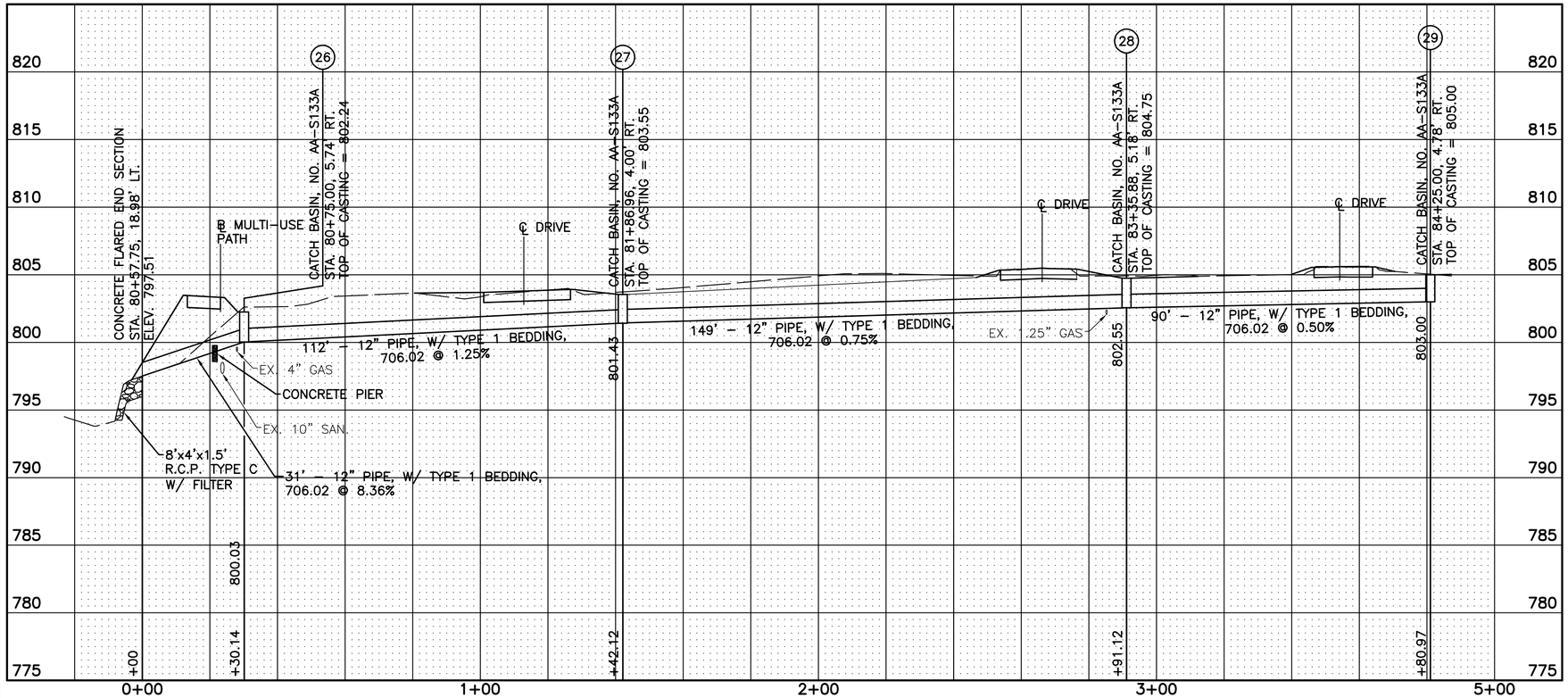


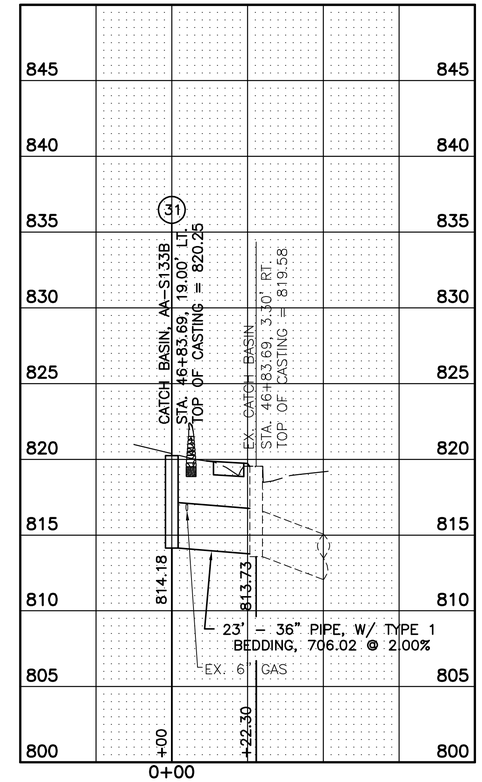
CALCULATED TJS
CHECKED BMH

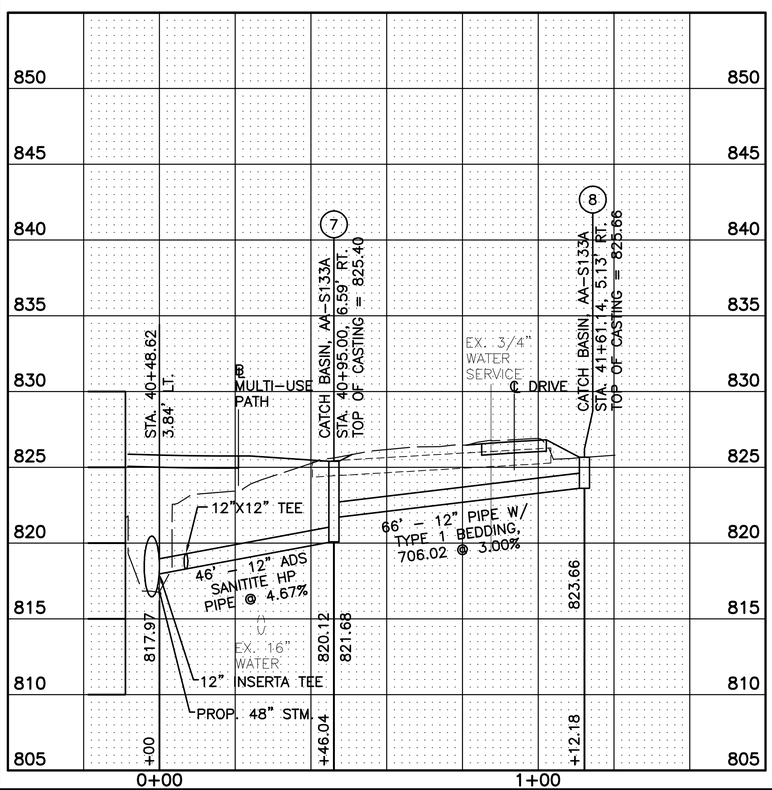
STORM SEWER PROFILES

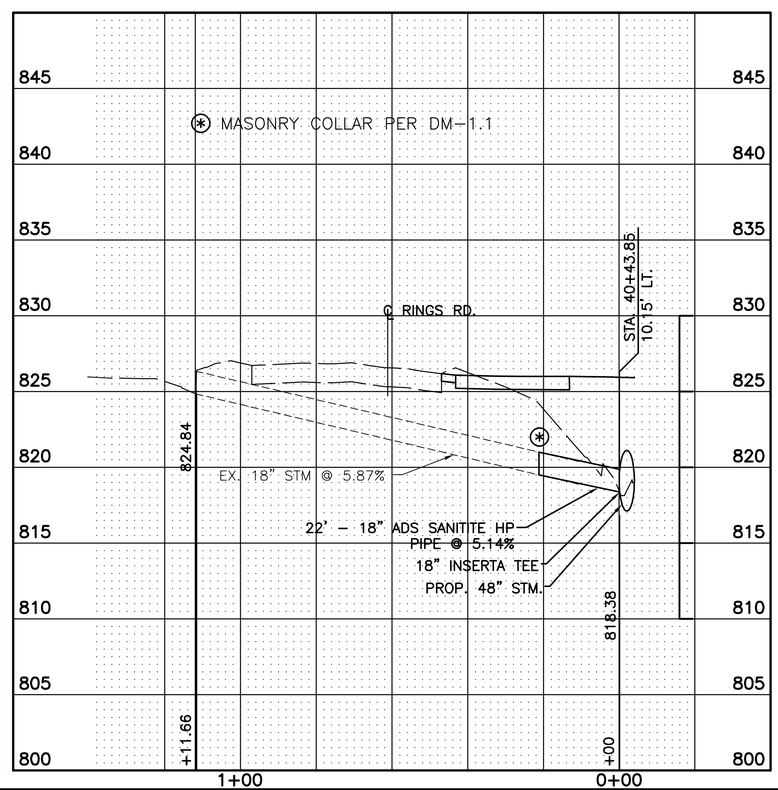
DUBLIN ROAD SOUTH
MULTI-USE PATH

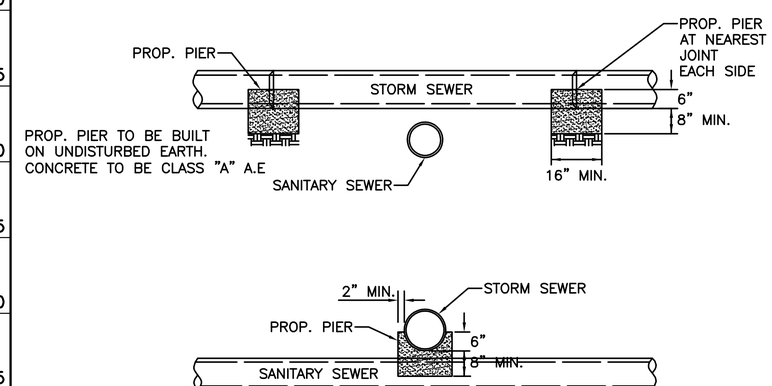
MCDANIEL, ARRON u:\73608736\design\plan_set\rings to waterford\Drainage\73608736swp03.dwg STORM SEWER PROFILES Last Saved: Jan 13, 2015 6:10 PM, AMCDANIEL Plotted: May 29, 2015 4:42 PM











CONCRETE PIER DETAIL

CALCULATED TJS
CHECKED BMH

STORM SEWER PROFILES

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Drainage\173608736swp04.dwg STORM SEWER PROFILES Last Saved: Dec 05, 2014 3:28 PM, AMCDANIEL Plotted: May 29, 2015 4:42 PM

* – INCLUDED IN 21.25 Ac. DRAINAGE AREA TO 60" CULVERT
\+ – STORAGE AREA
† – 51.19 Ac. DRAINAGE AREA IS OUTLET CONTROLLED BY A 21" PIPE IN THE EASTERN STORAGE AREA

N

0 300 600
SCALE IN FEET

CALCULATED TJS
CHECKED BMH

STORM SEWER TRIBUTARY AREA MAP

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\1736087361\design\plan_set\rings to waterford\Drainage\1736087361m01.dwg STORM SEWER TRIBUTARY AREA MAP Last Saved: Jul 01, 2013 11:03 AM Plotted: May 29, 2015 4:43 PM

STORM WATER INLET COMPUTATIONS (n = 0.013)

INLET NUMBER	INLET TYPE	INLET STATION	DRAINAGE AREA	C	CA	TIME	I-5 (IN./HR.)	Q-5 (C.F.S.)	Q (CARRYOVER) (C.F.S)	Q TOTAL (GUTTER FLOW)	S (GUTTER SLOPE) (FT./FT.)	Sx (CROSS SLOPE)	SPREAD (FT.)	TOTAL FLOW INTERCEPTED	CARRY OVER FLOW	% PICK UP
7	AA-S133	40+95.00	0.20	0.64	0.13	15	3.85	0.5	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	AA-S133	41+57.55	4.95	0.51	2.52	46	1.99	5.0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	CB 2-3	54+26.08	0.03	0.60	0.02	15	3.85	0.1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	AA-S125B	101+65.01	0.23	0.62	0.14	10	4.50	0.7	0	0.65	SUMP	0.02	5.7	0.65	0.00	100%
12	AA-S125B	101+91.88	0.13	0.75	0.10	10	4.50	0.5	0	0.45	SUMP	0.02	3.9	0.45	0.00	100%
13	AA-S133	61+50.00	6.04	0.55	3.32	47	1.96	6.5	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	AA-S133	101+43.69	0.05	0.67	0.03	15	3.85	0.1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	AA-S133	101+41.48	3.48	0.62	2.15	34	3.85	8.3	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	AA-S133	100+81.29	3.31	0.63	2.08	34	3.85	8.0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	AA-S133	53+49.95	0.26	0.58	0.15	15	3.85	0.6	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	AA-S133	52+19.70	3.96	0.52	2.07	33.5	2.48	5.1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19	AA-S125B	302+86.87	0.03	0.88	0.02	10	4.50	0.1	0	0.11	SUMP	0.02	0.0	0.11	0.00	100%
20	AA-S125B	302+71.70	0.43	0.61	0.26	10	4.50	1.2	0	1.17	SUMP	0.02	7.7	1.17	0.00	100%
EX	AA-S133	72+84.05	2.13	0.58	1.23	15	3.85	4.7	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EX	AA-S133	71+85.84	7.53	0.55	4.14	42.5	2.11	8.7	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	AA-S125A	201+94.13	0.04	0.75	0.03	10	4.50	0.1	0	0.14	0.008	0.02	0.0	0.14	0.00	100%
22	AA-S125B	201+73.07	0.04	0.86	0.03	10	4.50	0.1	0	0.15	SUMP	0.02	0.0	0.15	0.00	100%
23	AA-S133	201+55.07	3.38	0.62	2.08	37.5	2.30	4.8	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	AA-S133	302+38.94	4.04	0.62	2.49	35	2.41	6.0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25	AA-S133	201+68.97	4.06	0.63	2.57	37.5	2.30	5.9	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	AA-S133	80+75.00	0.06	0.66	0.04	15	3.85	0.1	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
27	AA-S133	81+86.96	0.28	0.64	0.18	15	3.85	0.7	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28	AA-S133	83+35.88	0.25	0.66	0.17	15	3.85	0.6	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	AA-S133	84+25.00	0.38	0.60	0.23	15	3.85	0.9	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30	AA-S125B	40+54.87	0.01	0.70	0.01	15	3.85	0.0	0	0.03	SUMP	0.02	5.7	0.03	0.00	100%

TIME OF CONCENTRATION:
10 MINUTES FOR CURB INLETS
15 MINUTES FOR DITCH CATCH BASINS
OVERLAND FLOW USED FOR LARGER AREAS

STORM SEWER DESIGN COMPUTATIONS – 5 YEAR

FROM POINT	TO POINT	DRAINAGE AREA (ACRES)	RUNOFF COEF. (C)	CA INCREM.	CA ACCUM.	INLET TIME (MIN.)	RAINFALL INTENSITY (IN./HR.)	Q-5 YR. RUNOFF (C.F.S.)	INVERT ELEVATION UPPER (FT.)	INVERT ELEVATION LOWER (FT.)	RIM ELEV. (FT.)	LENGTH (FT.)	SLOPE (FT./FT.)	DIA. (IN.)	n	CAPACITY (C.F.S.)	VELOCITY (F.P.S.)	FLOW TIME (MIN.)	REMARKS
8	7	4.95	0.51	2.52	2.52	46.00	1.99	5.0	823.66	821.68	825.66	66	0.0300	12	0.013	6.2	6.4	0.17	
7	Outlet	0.20	0.64	0.13	2.64	46.17	1.99	5.3	820.12	817.97	825.40	46	0.0467	12	0.013	7.7	6.7	0.11	Blind Tap into Prop. 48"
13	12	6.04	0.55	3.32	3.32	47.00	1.96	6.5	801.74	801.11	804.24	141	0.0045	18	0.013	7.0	3.7	0.64	
12	11	0.13	0.75	0.10	3.42	47.64	1.94	6.6	801.11	800.71	805.06	80	0.0050	18	0.013	7.4	3.8	0.35	
11	10	0.23	0.62	0.14	3.57	47.99	1.94	6.9	799.81	797.15	805.81	89	0.0299	18	0.013	18.2	3.9	0.38	
10	9	0.03	0.60	0.02	3.59	48.37	1.93	6.9	797.15	796.93	807.52	40	0.0055	18	0.013	7.8	3.9	0.17	
9	Outlet	0.00	0.00	20.50	24.09	34.15	1.91	46.0	796.93	796.73	808.03	10	0.0200	42	0.013	142.3	4.8	0.03	Outlet into Ex. 60"
15	14	3.48	0.62	2.15	2.15	34.00	2.46	5.3	801.07	800.84	807.11	38	0.0060	15	0.013	5.0	4.3	0.15	
14	9	0.05	0.67	0.03	4.27	34.15	2.45	10.5	800.59	799.15	806.37	145	0.0060	18	0.013	8.1	5.9	0.41	
16	14	3.31	0.63	2.08	2.08	34.00	2.46	5.1	807.14	803.39	813.14	63	0.0600	12	0.013	8.7	6.5	0.16	
Inlet	9	13.41	0.51	6.84	6.84	17.00	3.63	51.7	807.75	802.33	809.25	19	0.3000	18	0.013	57.5	29.2	0.01	Stream Intercept
18	17	3.96	0.52	2.07	2.07	33.50	2.48	5.1	809.99	806.42	812.99	130	0.0275	12	0.013	5.9	6.5	0.33	
17	9	0.26	0.58	0.15	2.22	33.83	2.47	5.5	806.42	805.22	809.27	41	0.0300	12	0.013	6.2	7.0	0.10	
23	22	3.38	0.62	2.08	2.08	37.50	2.30	4.8	802.65	802.56	805.50	21	0.0043	15	0.013	4.2	3.9	0.09	
22	21	0.04	0.86	0.03	2.11	37.59	2.30	4.9	802.56	802.26	804.72	74	0.0040	15	0.013	4.1	4.0	0.31	
21	EX	0.04	0.75	2.61	4.72	37.90	2.28	10.8	802.26	801.09	804.81	166	0.0074	15	0.013	5.6	8.8	0.32	
EX	EX	7.53	0.55	4.14	8.86	42.50	2.11	18.7	800.96	800.94	803.79	99	0.0002	15	0.013	0.9	15.2	0.11	
EX	20	2.13	0.58	1.23	10.09	42.61	2.10	21.2	800.93	800.47	804.04	139	0.0033	15	0.013	3.7	17.3	0.13	
20	TAP	0.43	0.61	2.75	12.84	42.74	2.10	27.0	800.47	795.99	803.11	51	0.1315	15	0.013	23.4	22.0	0.04	
TAP	Outlet	0.00	0.00	0.02	12.86	42.78	2.10	27.0	795.49	793.99	N/A	16	0.0985	15	0.013	20.3	22.0	0.01	
19	TAP	0.03	0.88	0.02	0.02	10.00	3.85	0.1	797.10	795.49	802.93	7	0.2462	10	0.013	10.9	0.2	0.67	Blind Tap
25	21	4.06	0.63	2.57	2.57	37.50	2.30	5.9	802.56	802.28	804.81	28	0.0100	15	0.013	6.5	4.8	0.10	
24	20	4.04	0.62	2.49	2.49	35.00	2.41	6.0	802.40	800.72	804.40	39	0.0432	15	0.013	13.4	4.9	0.13	
29	28	0.38	0.60	0.23	0.23	15.00	3.85	0.9	803.00	802.55	805.00	90	0.0050	12	0.013	2.5	1.1	0.57	
28	27	0.25	0.66	0.17	0.40	15.57	3.78	1.5	802.55	801.43	804.75	149	0.0075	12	0.013	3.1	1.9	0.71	
27	26	0.28	0.64	0.18	0.57	16.28	3.71	2.1	801.43	800.03	803.50	112	0.0125	12	0.013	4.0	2.7	0.40	
26	Outlet	0.06	0.66	0.04	0.61	16.68	3.67	2.2	800.03	797.24	802.24	34	0.0841	12	0.013	10.3	2.9	0.20	
30	Outlet	0.01	0.70	0.01	0.01	15.00	3.85	0.0	819.37	818.30	824.87	6	0.1736	12	0.013	14.8	0.0	2.90	

CALCULATED TJS
CHECKED BMH

STORM SEWER COMPUTATIONS

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\1736087361\design\plan_set\rings to waterford\Drainage\1736087361swc01.dwg STORM SEWER COMPUTATIONS Last Saved: Jul 01, 2013 11:06 AM Plotted: May 29, 2015 4:43 PM

HYDRAULICS GRADE LINE COMPUTATIONS – 10 YEAR

INLET #	OUTLET INVERT ELEV.	OULET WATER SURFACE ELEV.	OUTLET PIPE DIAM.	OUTLET FLOW RATE	OUTLET PIPE LENGTH	FRICTION SLOPE	FRICTION LOSS Hf	JUNCTION LOSS: VELOCITY OUTLET PIPE Vo	CONTR. LOSS Ho	DISCHARGE INFLOW PIPE Qi	VELOCITY INFLOW PIPE Vi	MAX. INFLOW PRODUCT Qi*Vi	INFLOW VELOCITY HEAD (Vi^2)/2g	MAX. EXPAN. LOSS Hi	MAX. ANGLE Ai	LOSS COEFF. K	MAX. BEND LOSS Hb	TOTAL HEAD LOSS Ht	INLET CORRECT. FACTOR 1.3*Ht	SHAPE CORRECT. FACTOR Hs=0.5*Ht	FINAL HEAD LOSS H	INLET WATER SURFACE ELEV.	RIM ELEV.	REMARKS
	FT.	FT.	IN.	C.F.S	FT.	%	FT.	F.P.S	FT.	C.F.S	F.P.S.	FT.^4/S^2	FT.	FT.	DEG.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)	(14)		(15)	(16)	(17)	(18)	(19)	(20)	(21)	
7	820.12	819.68	12	6.0	46	3.77%	1.7342	7.6	0.225	6.0	7.2	43.25	0.8140	0.285	0	0.00	0.000	0.509	0.662	0.255	1.989	821.67	825.40	AA-S133
8	823.66	821.67	12	5.7	66	3.42%	2.2572	7.2	0.203	5.7	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.203	0.265	0.102	2.359	824.03	825.66	AA-S133
9	796.93	801.03	42	53.0	10	0.28%	0.028	5.5	0.118	53.0	4.5	236.80	0.3101	0.109	90	0.70	0.217	0.443	0.576	0.222	0.250	801.28	808.03	MH 3
10	797.15	801.28	18	7.9	40	0.56%	0.224	4.5	0.078	7.9	4.4	35.09	0.3066	0.107	0	0.00	0.000	0.185	0.240	0.092	0.316	801.60	807.52	CB 2-3
11	799.81	801.60	18	7.9	89	0.56%	0.4984	4.4	0.077	7.9	4.3	33.63	0.2849	0.100	0	0.00	0.000	0.176	0.229	0.088	0.587	802.18	805.81	AA-S125B
12	801.11	802.18	18	7.6	80	0.52%	0.416	4.3	0.071	7.6	4.2	31.47	0.2685	0.094	0	0.00	0.000	0.165	0.215	0.083	0.499	802.68	805.06	AA-S125B
13	801.74	802.68	18	7.3	141	0.49%	0.6909	4.2	0.067	7.3	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.067	0.087	0.034	0.724	803.41	804.24	AA-S133
14	800.59	802.17	18	9.4	145	0.79%	1.1455	5.3	0.110	9.4	3.9	36.21	0.2308	0.081	15	0.10	0.023	0.214	0.278	0.107	1.252	803.42	806.37	AA-S133
15	801.07	803.42	15	4.7	38	0.54%	0.2052	3.9	0.058	4.7	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.058	0.075	0.029	0.234	803.66	807.11	AA-S133
16	807.14	804.36	12	5.8	63	2.55%	1.6065	7.4	0.211	5.8	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.211	0.275	0.106	1.712	806.07	813.14	AA-S133
Inlet	807.75	803.83	18	55.3	19	30.80%	5.852	31.3	3.800	55.3	0.0	0.00	0.0000	0.000	0	0.00	0.000	3.800	4.940	1.900	7.752	811.58	809.25	Stream Intercept
17	806.42	806.20	12	6.2	41	2.99%	1.2259	7.9	0.241	6.2	7.3	45.38	0.8365	0.293	15	0.10	0.084	0.617	0.802	0.309	1.534	807.73	809.27	AA-S133
18	809.99	807.73	12	5.8	130	2.59%	3.367	7.3	0.209	5.8	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.209	0.272	0.105	3.472	811.21	812.99	AA-S133
TAP	795.49	802.00	15	30.7	16	29.94%	4.7904	25.0	2.435	30.7	25.0	768.31	9.7031	3.396	0	0.00	0.000	5.831	7.581	2.916	7.706	809.71	N/A	Blind Tap
20	800.47	809.71	15	30.7	51	29.83%	15.2133	25.0	2.426	30.7	19.6	602.56	5.9910	2.097	0	0.00	0.000	4.523	5.879	2.261	17.475	827.18	803.11	AA-S125B
EX	800.93	827.18	15	24.1	139	18.35%	25.5065	19.6	1.498	24.1	17.2	415.73	4.6189	1.617	0	0.00	0.000	3.114	4.049	1.557	27.064	854.24	804.04	AA-S133
EX	800.96	854.24	15	21.2	99	14.12%	13.9788	17.2	1.155	21.2	9.2	194.56	1.3121	0.459	0	0.00	0.000	1.614	2.098	0.807	14.786	869.03	803.79	AA-S133
21	802.26	869.03	15	11.3	166	3.97%	6.5902	9.2	0.328	11.3	4.1	46.45	0.2632	0.092	0	0.00	0.000	0.420	0.546	0.210	6.800	875.83	804.81	AA-S125A
22	802.56	875.83	15	5.1	74	0.79%	0.5846	4.1	0.066	5.1	4.1	20.49	0.2552	0.089	90	0.70	0.179	0.334	0.434	0.167	0.752	876.58	804.72	AA-S125B
23	802.65	876.58	15	5.0	21	0.77%	0.1617	4.1	0.064	5.0	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.064	0.083	0.032	0.194	876.78	805.50	AA-S133
19	797.10	809.71	10	0.1	7	0.00%	0	0.1	0.000	0.1	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.000	0.000	0.000	0.000	809.71	802.93	AA-S125B
24	802.40	827.18	15	5.9	39	3.74%	1.4586	4.8	0.091	5.9	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.091	0.119	0.046	1.504	828.68	804.40	AA-S133
25	802.56	875.83	15	6.2	28	1.18%	0.3304	5.0	0.098	6.2	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.098	0.127	0.049	0.379	876.21	804.81	AA-S133
26	800.03	800.00	12	2.6	34	0.69%	0.2346	3.3	0.042	2.6	3.1	7.90	0.1469	0.051	55	0.51	0.075	0.168	0.218	0.084	0.319	800.32	802.24	AA-S133
27	801.43	800.32	12	2.4	112	0.61%	0.6832	3.1	0.037	2.4	2.2	5.20	0.0719	0.025	0	0.00	0.000	0.062	0.080	0.031	0.714	801.03	803.50	AA-S133
28	802.55	801.03	12	1.7	149	0.30%	0.447	2.2	0.018	1.7	3.1	5.20	0.1469	0.051	0	0.00	0.000	0.069	0.090	0.035	0.482	801.51	804.75	AA-S133
29	803.00	801.51	12	1.0	90	0.10%	0.09	3.1	0.037	2.4	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.037	0.048	0.018	0.108	801.62	805.00	AA-S133
30	819.37	819.37	12	0.0	6	0.01%	0.0006	0.0	0.000	0.0	0.0	0.00	0.0000	0.000	0	0.00	0.000	0.000	0.000	0.000	0.001	819.37	824.87	AA-S125B

$Hi=0.35\frac{Vi^2}{2g}$ $Ho=0.25\frac{Vo^2}{2g}$ $Hb=K\frac{Vi^2}{2g}$ FINAL $H=Hf+Hs$ $Ht=Hi+Ho+Hb$

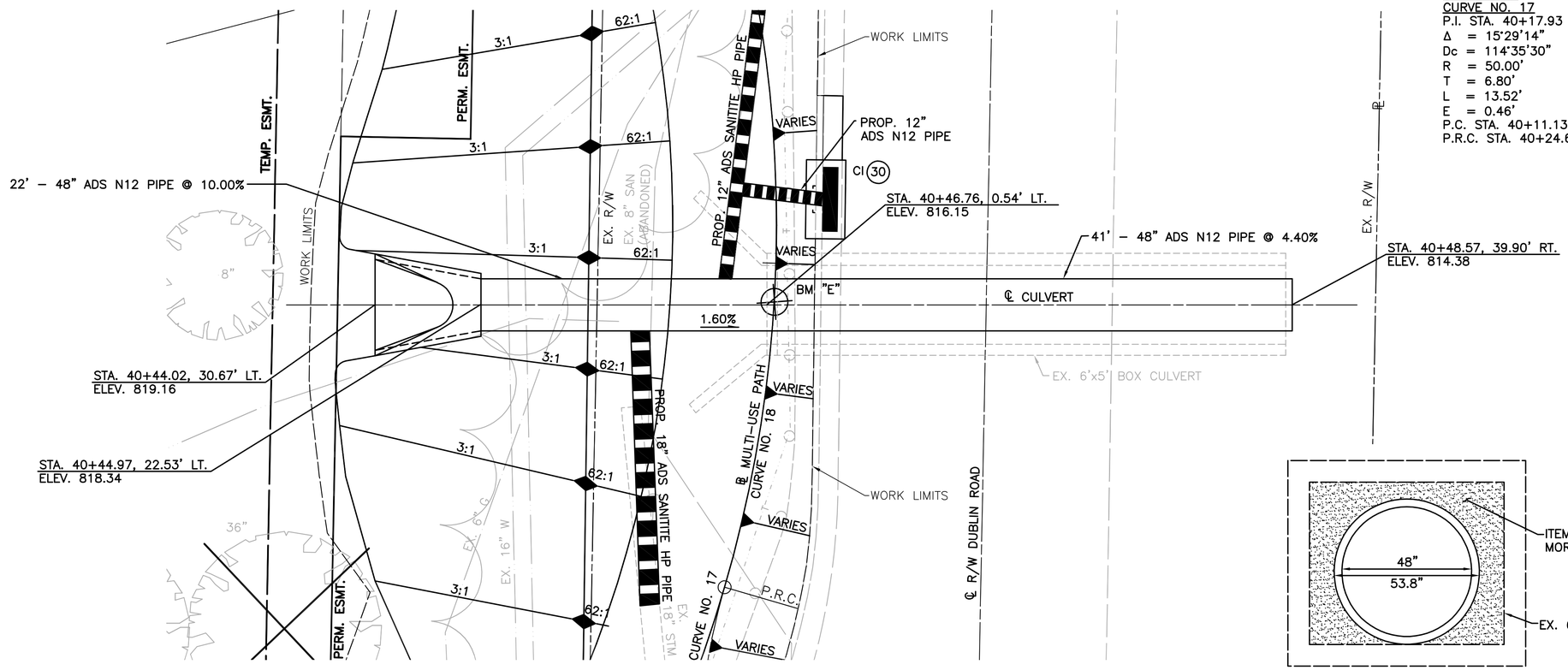
90°	K=0.70	50°	K=0.47	20°	K=0.16
80°	K=0.66	40°	K=0.38	15°	K=0.10
70°	K=0.61	30°	K=0.28		
60°	K=0.55	25°	K=0.22		

CALCULATED TJS
CHECKED BMH

STORM SEWER COMPUTATIONS

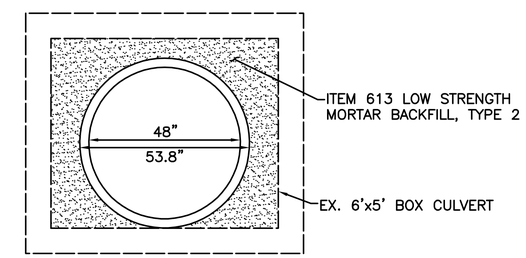
DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Drainage\173608736swc02.dwg STORM SEWER COMPUTATIONS Last Saved: Jul 01, 2013 11:07 AM Plotted: May 29, 2015 4:43 PM



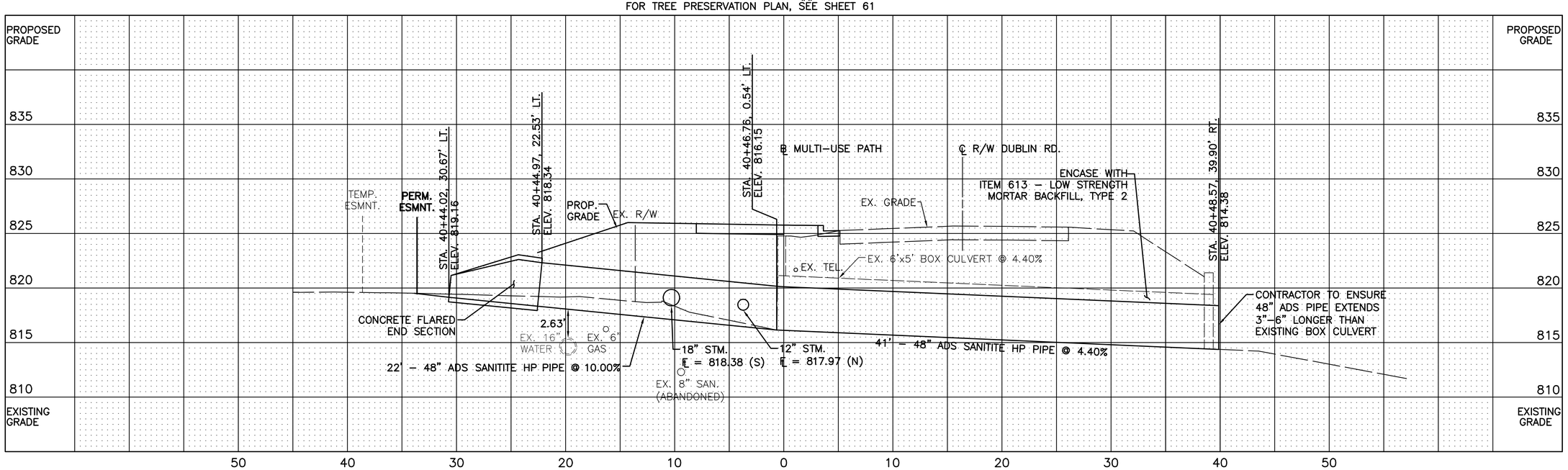
CURVE DATA
CURVE NO. 17
P.I. STA. 40+17.93
Δ = 15°29'14"
Dc = 114°35'30"
R = 50.00'
T = 6.80'
L = 13.52'
E = 0.46'
P.C. STA. 40+11.13
P.R.C. STA. 40+24.65

CURVE DATA
CURVE NO. 18
P.I. STA. 40+52.35
Δ = 30°58'28"
Dc = 57°17'45"
R = 100.00'
T = 27.71'
L = 54.06'
E = 3.77'
P.R.C. STA. 40+24.65
P.R.C. STA. 40+78.71



ENCASEMENT DETAIL

FOR MULTI-USE PATH PLAN AND PROFILE, SEE SHEET 17
FOR STORM SEWER PROFILES, SEE SHEET ##
FOR GRADING PLAN, SEE SHEET ##
FOR TREE PRESERVATION PLAN, SEE SHEET 61



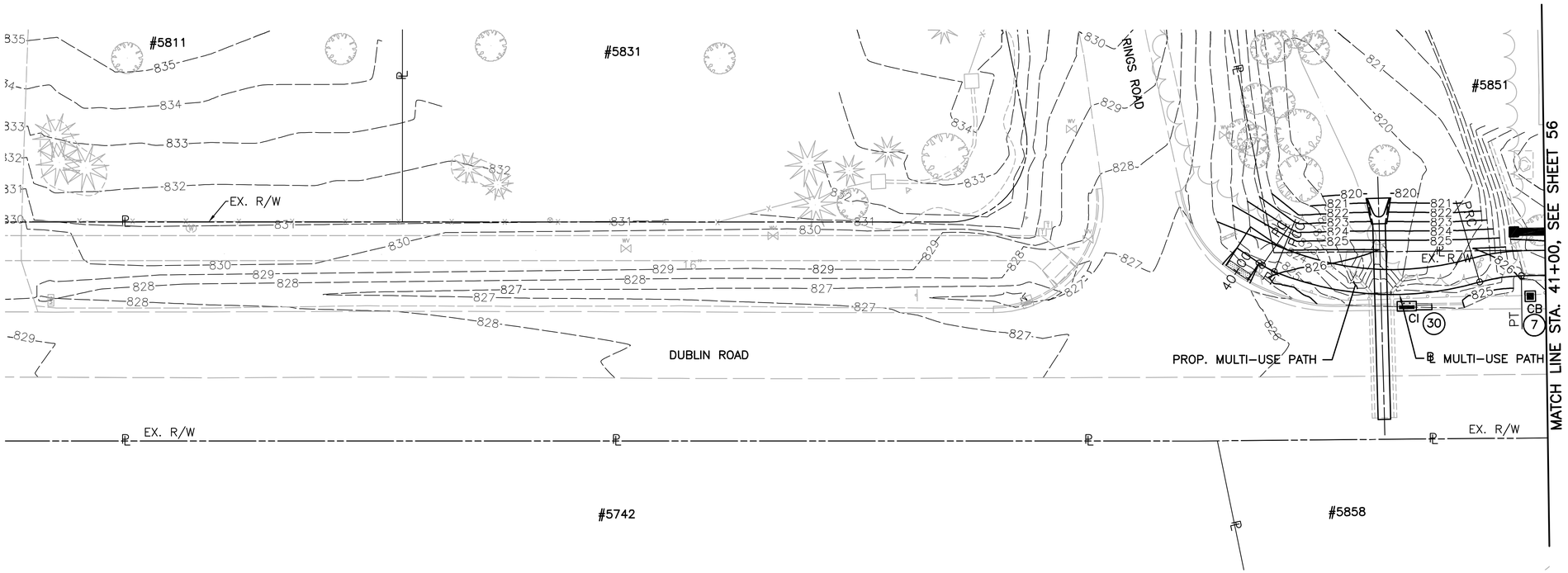
CALCULATED CNK
CHECKED TJS

SCALE IN FEET 0 5 10

CULVERT DETAILS

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\73608736\design\plan_set\rings to waterford\Drainage\Culverts\73608736cd01.dwg CULVERT DETAILS Last Saved: Dec 05, 2014 3:35 PM Plotted: May 29, 2015 4:43 PM



SCALE IN FEET
0 20 40

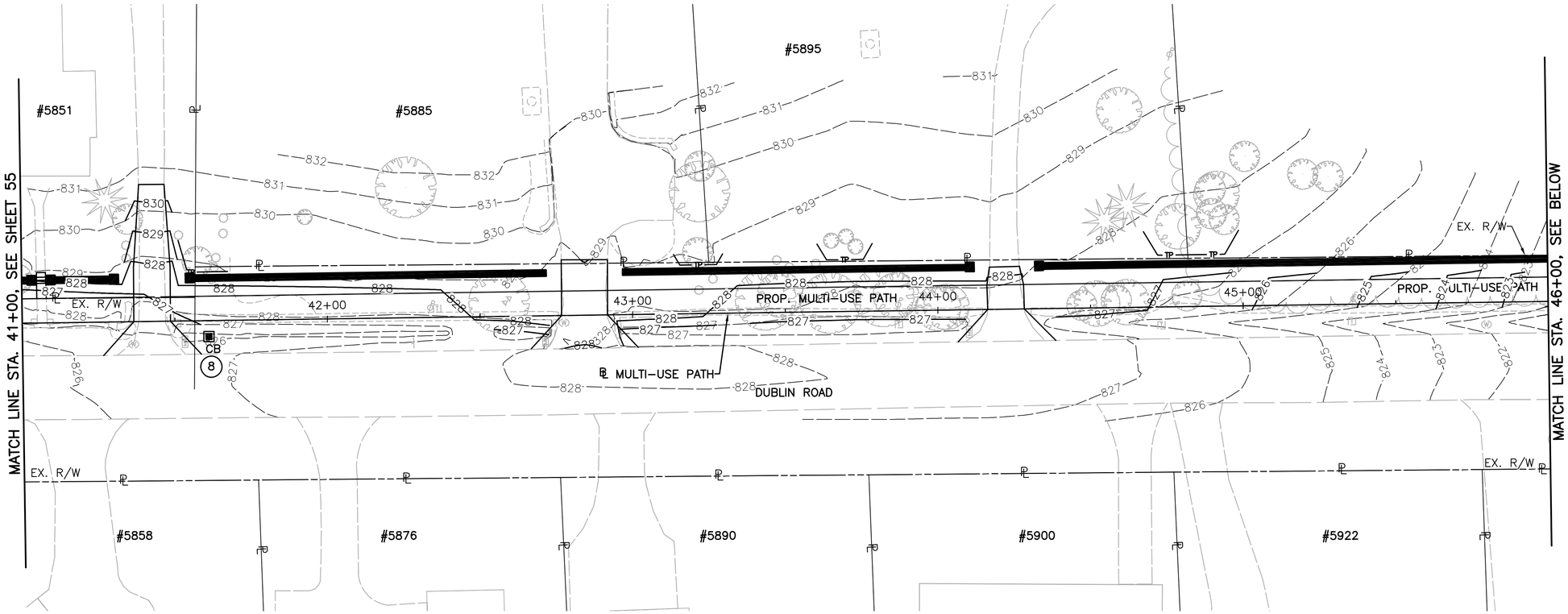
CALCULATED CNK
CHECKED TJS

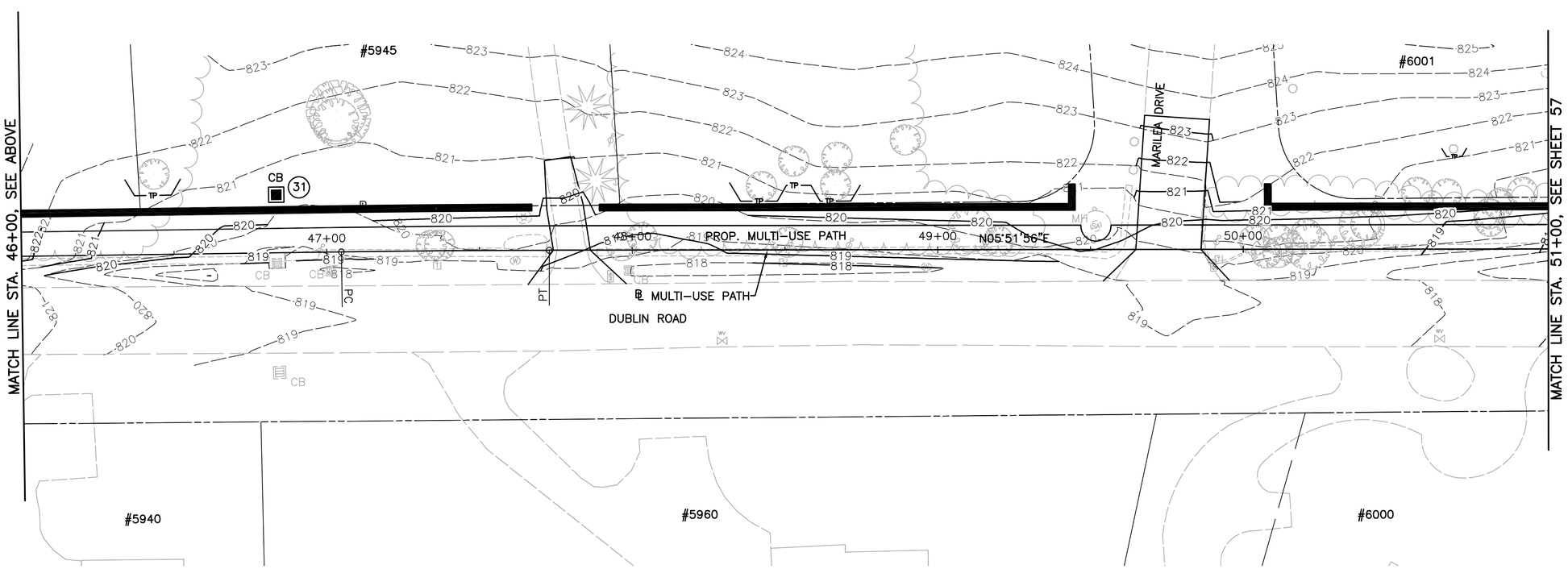
GRADING PLAN
STA. 24+00 TO STA. 41+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

55
84

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Grading Plan\173608736gp03.dwg GRADING PLAN Last Saved: Oct 31, 2014 2:34 PM Plotted: May 29, 2015 4:43 PM





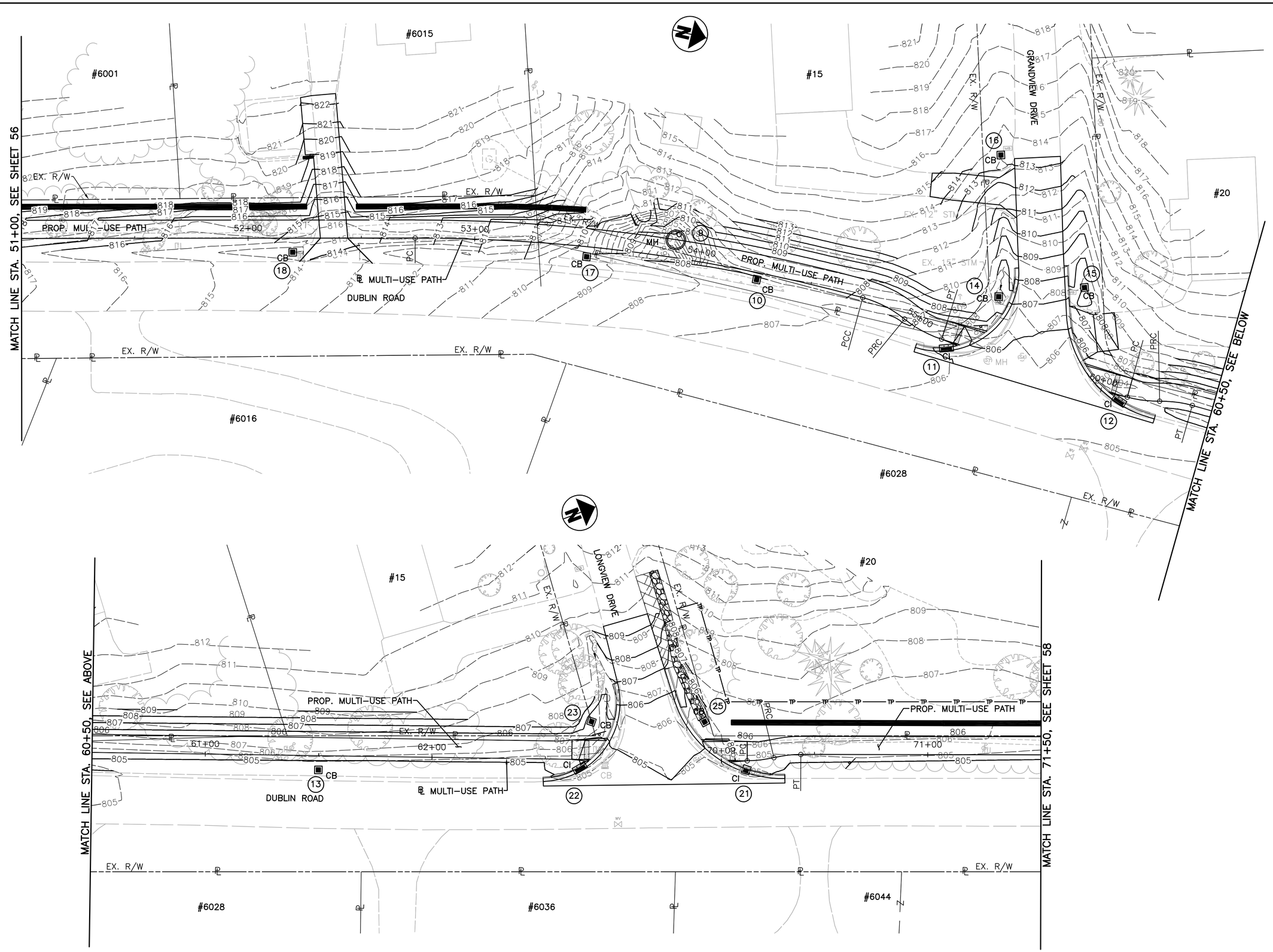
SCALE IN FEET 0 20 40

CALCULATED CNK
CHECKED TJS

GRADING PLAN
STA. 41+00 TO STA. 51+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Grading Plan\173608736gp04.dwg GRADING PLAN Last Saved: Dec 15, 2014 4:39 PM Plotted: May 29, 2015 4:44 PM

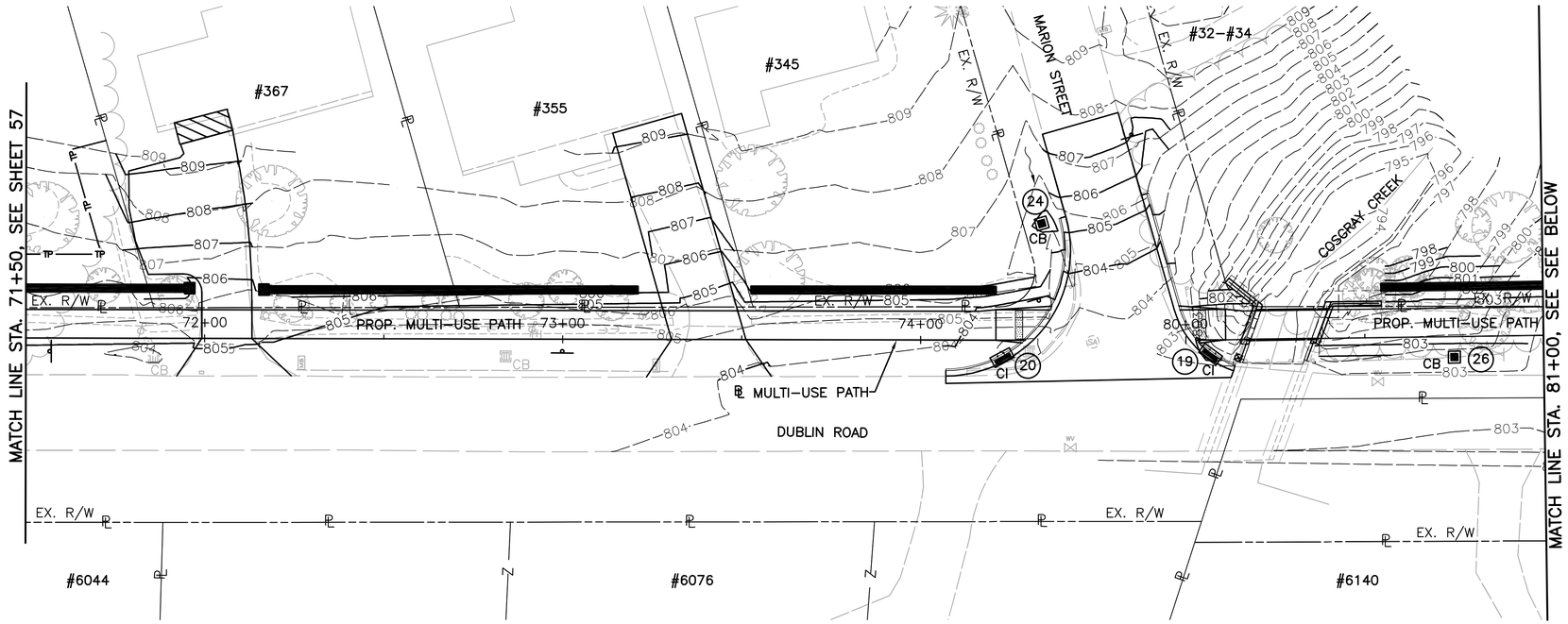


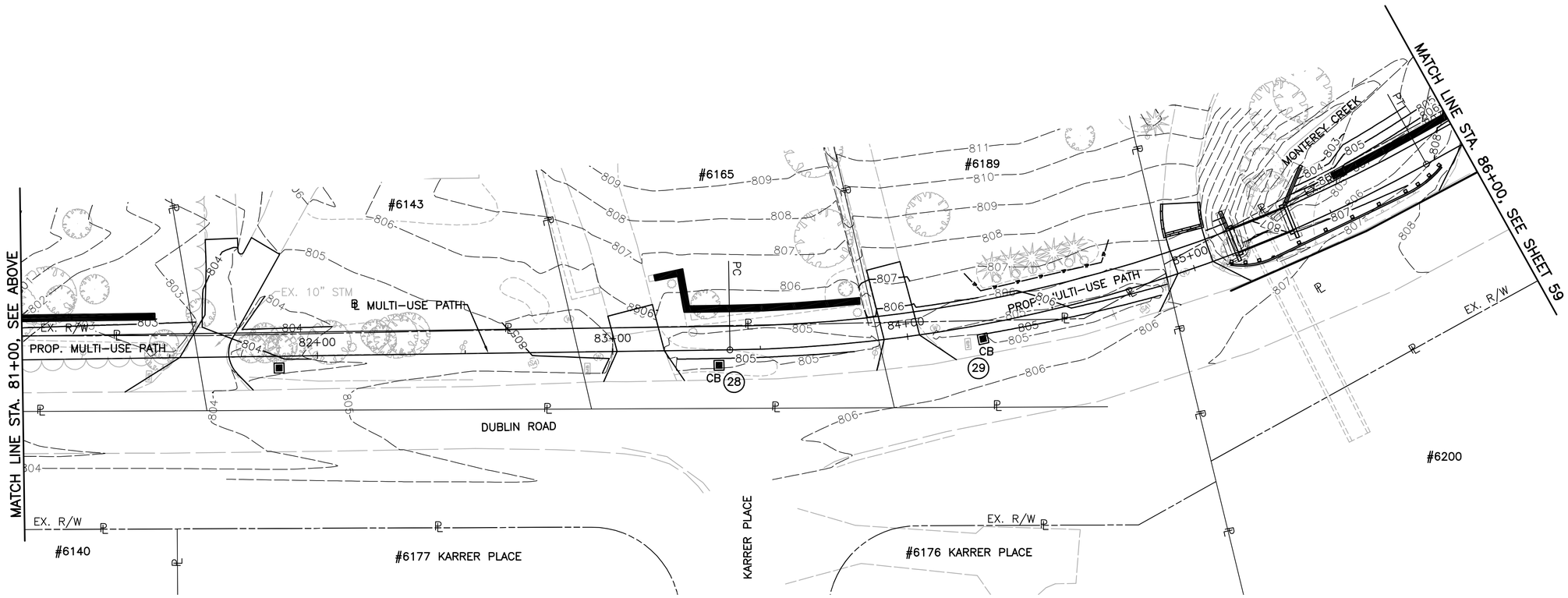
CALCULATED CNK
CHECKED TJS

GRADING PLAN
STA. 51+00 TO STA. 71+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, AARON u:\173608736\design\plan_set\rings to waterford\Grading Plan\173608736gp05.dwg GRADING PLAN Last Saved: Oct 31, 2014 2:36 PM Plotted: May 29, 2015 4:44 PM





SCALE IN FEET 0 20 40

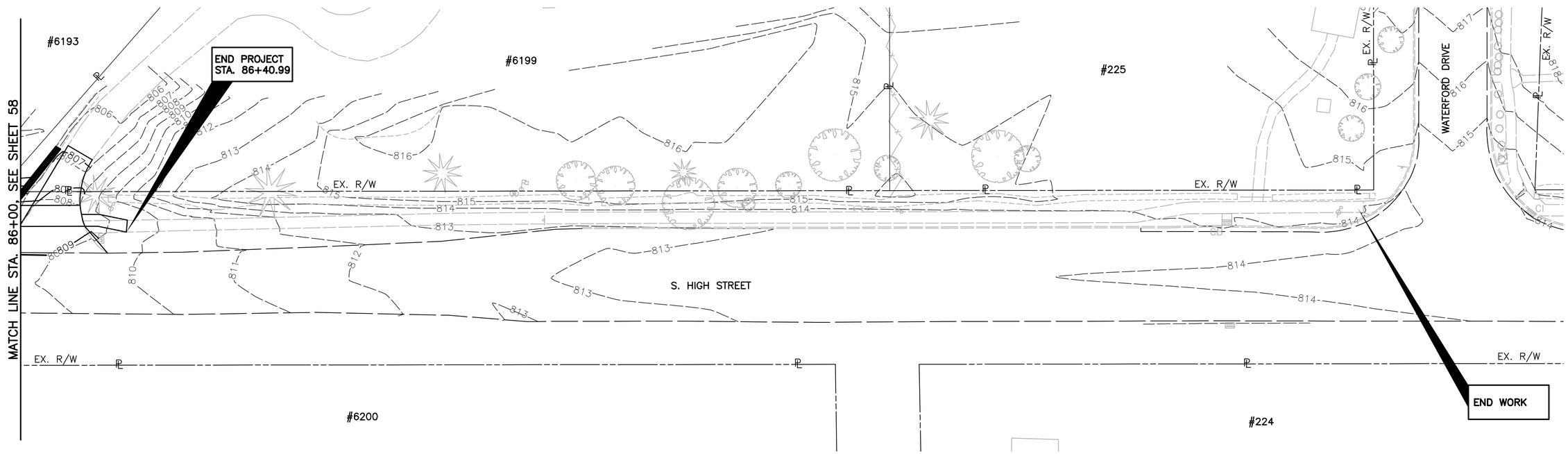
CALCULATED CNK
CHECKED TJS

GRADING PLAN
STA. 71+50 TO STA. 86+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

58
84

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Grading Plan\173608736gp06.dwg GRADING PLAN Last Saved: Oct 31, 2014 2:37 PM Plotted: May 29, 2015 4:44 PM



0 20 40
SCALE IN FEET

CALCULATED CNK
CHECKED TJS

GRADING PLAN
STA. 86+00 AHEAD

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608738\design\plan_set\rings to waterford\Grading Plan\173608738gp07.dwg GRADING PLAN Last Saved: Oct 31, 2014 2:38 PM Plotted: May 29, 2015 4:44 PM

TREE PRESERVATION NOTES:

1. TREES WITH TRUNK DIAMETERS LESS THAN TWELVE INCHES (12") SHALL BE CONSIDERED BRUSH AND THEIR REMOVAL PAID UNDER ITEM 201, CLEARING AND GRUBBING WHERE SPECIFICALLY MARKED FOR REMOVAL.

2. A PROTECTED TREE SHALL BE DEFINED AS ANY TREE NOT DESIGNATED FOR REMOVAL ON THESE PLANS AND HAVING A TRUNK SIX–INCH (6") IN DIAMETER OR LARGER, AS MEASURED FOUR AND ONE HALF FOOT (4 ½') ABOVE GROUND (DIAMETER BREAST HEIGHT, DBH).

3. ALL TREES NOT LOCATED WITHIN THE AREAS SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. WHERE SHOWN ON THE DRAWINGS, HIGH–VISIBILITY TREE PROTECTION FENCING SHALL BE PLACED A MINIMUM OF FIFTEEN FEET (15') FROM THE TREE TRUNK, OR AS DIRECTED BY THE DIVISION OF ENGINEERING.

4. THE CONTRACTOR SHALL LIMIT WORK TO AREAS WITHIN PUBLIC RIGHT–OF–WAY, EASEMENTS, OR OTHER SPECIFICALLY DESIGNATED WORK AREAS.

5. TRENCHING WITHIN CRITICAL ROOT ZONES SHALL BE EVALUATED PRIOR TO EXCAVATION. IF EXCAVATION WITHIN CRITICAL ROOT ZONES IS UNAVOIDABLE, TRENCHES SHALL BE BACKFILLED SAME DAY.

6. NO ATTACHMENTS SHALL BE MADE TO ANY PROTECTED TREE (I.E. NO ROPES, NAILS, WIRES, ETC.).

7. THE CONTRACTOR MAY INSTALL PROTECTION FENCING IN PHASES TO MATCH CONSTRUCTION SEQUENCING TO ALLOW REUSE OF FENCING. HOWEVER, PROTECTION FENCING SHALL REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION FOR ANY PARTICULAR WORK LOCATION.

8. PROTECTION FENCING SHALL BE LOCATED AROUND THE CRITICAL ROOT ZONE OF AFFECTED TREES. THIS IS THE AREA AROUND A TREE HAVING A RADIUS EQUAL TO ONE FOOT (1') FOR EVERY INCH OF DBH, OR FIFTEEN FEET (15'), WHICHEVER IS GREATER.

9. IN ALL CASES WHERE PROTECTION OF THE ENTIRE CRITICAL ROOT ZONE DOES NOT ALLOW ADEQUATE ROOM FOR CONSTRUCTION, PROTECTION FENCING IS TO BE OFFSET A MAXIMUM OF SEVEN AND ONE–HALF FEET (7 ½') FROM CENTER OF WATER LINE TRENCH, TEN FEET (10') FROM CENTER OF SEWER TRENCH, AND SEVEN AND ONE–HALF FEET (7 ½') FROM LATERAL OR FIRE HYDRANT LEAD PIPES, UNLESS OTHERWISE NOTED IN THE PLANS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION, ERECTION, AND MAINTENANCE OF ALL PROTECTION FENCING. TREE PROTECTION FENCING IS SHOWN ON THE PLANS FOR BIDDING PURPOSES, AND MAY BE ADJUSTED FOR FIELD CONDITIONS IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

11. CONTACT THE DIVISION OF ENGINEERING FOR INSPECTION OF PROTECTION FENCING AND INSTALLATION OF PROTECTION ZONE SIGNS PRIOR TO START OF CONSTRUCTION.

12. THE CITY OF DUBLIN RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES AND/OR STUMPS WITHIN THE CONSTRUCTION LIMITS.

13. QUESTIONS CONCERNING TREE PRESERVATION AND SPECIAL PROTECTIVE MEASURES (I.E. HAND–PRUNING OF SHOOTS, ETC.) SHOULD BE DIRECTED TO THE DIVISION OF ENGINEERING.

TREE REMOVAL NOTES:

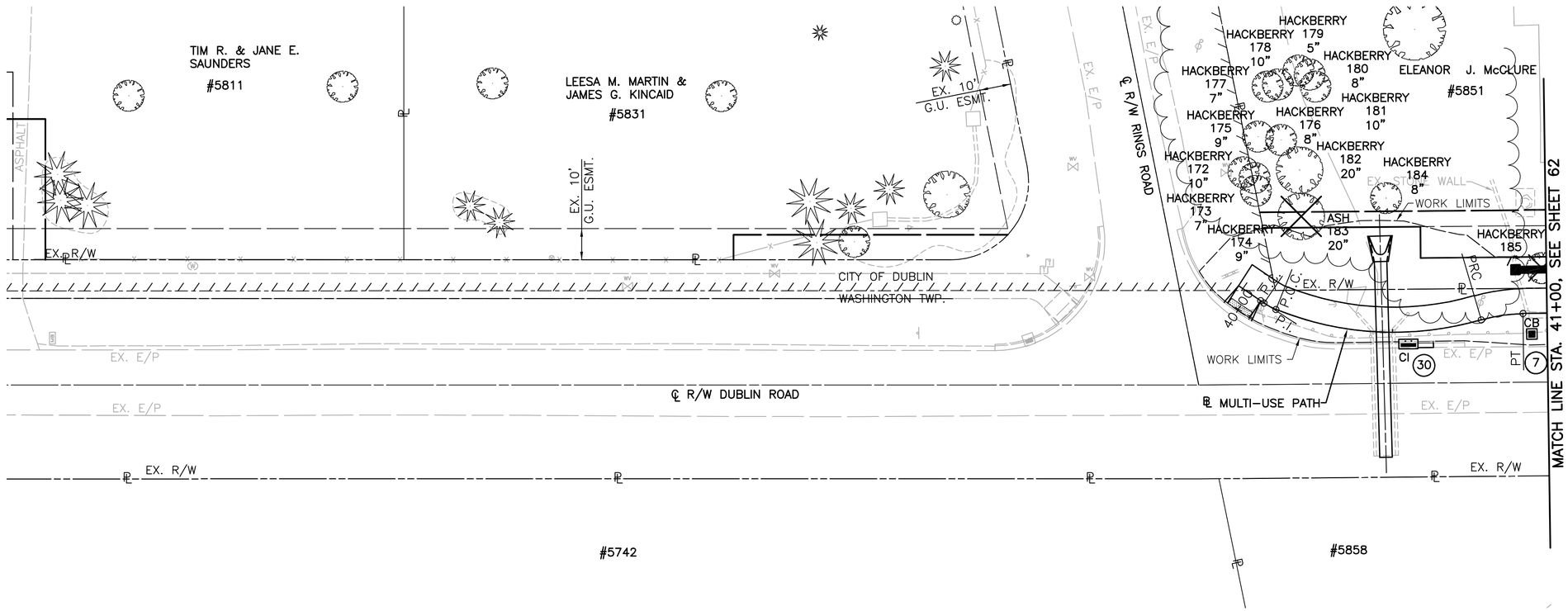
1. TOTAL TREE CALIPER TO BE REMOVED: 1148".

CALCULATED JWS
CHECKED TJS

TREE PRESERVATION PLAN NOTES

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\17360873б\design\plan_set\rings to waterford\Tree Preservation Plan\17360873бtpn01.dwg TREE PRESERVATION PLAN NOTES Last Saved: Oct 31, 2014 2:38 PM, AMCDANIEL Plotted: May 29, 2015 4:44 PM



TREES TO BE REMOVED

I.D.	TREE SPECIES	TRUNK DIA. (IN.)	CONDITION
183	ASH	20	FAIR
185	HACKBERRY	7	GOOD

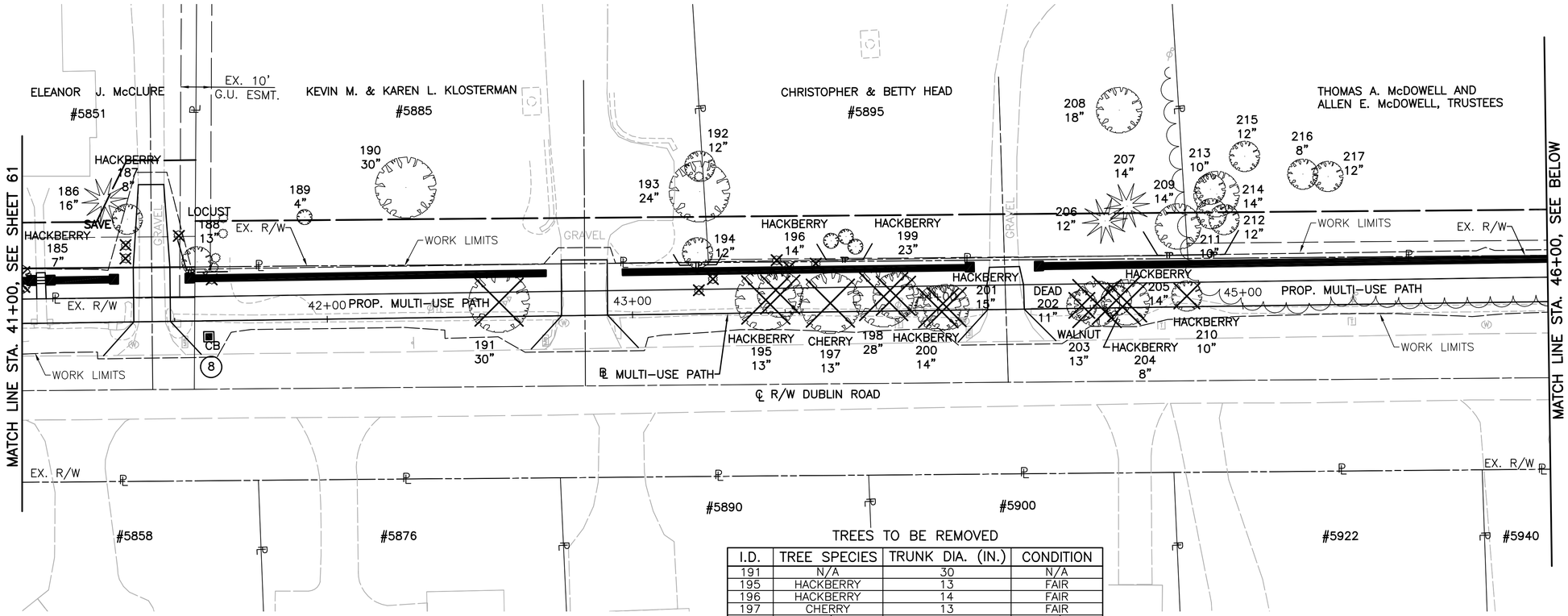
SCALE IN FEET 0 20 40

CALCULATED JWS
CHECKED TJS

TREE PRESERVATION PLAN
STA. 24+00 TO STA. 41+00

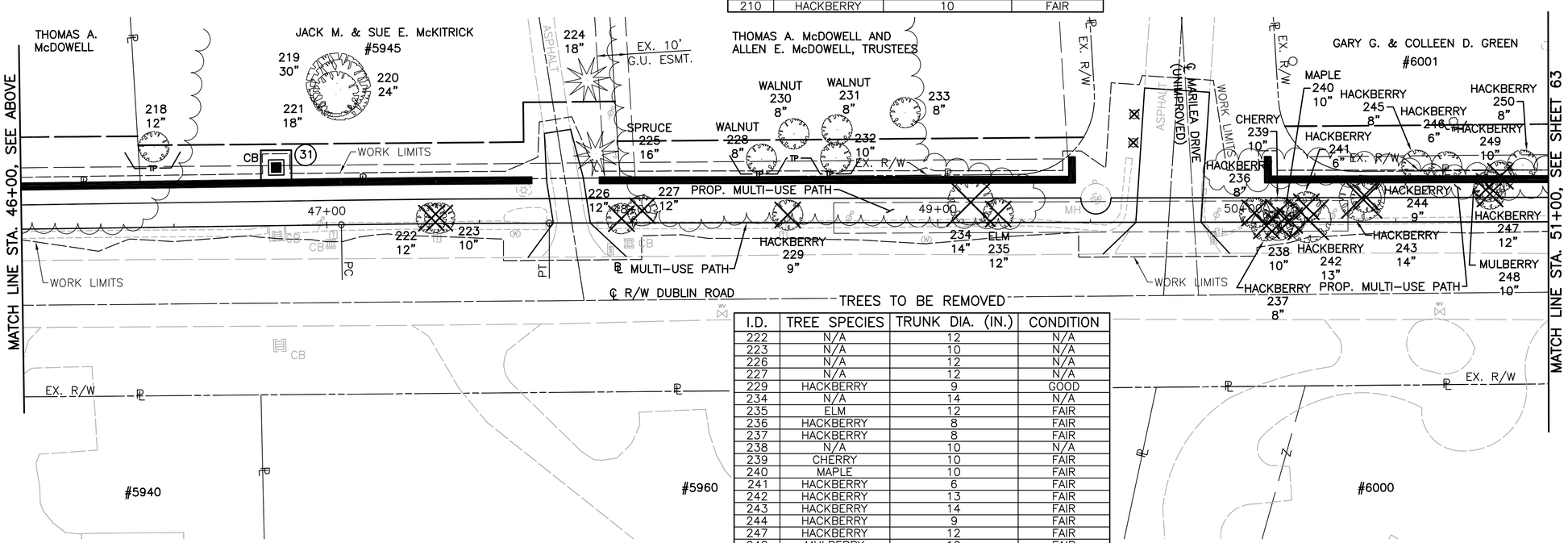
DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Tree Preservation Plan\173608736tp03.dwg TREE PRESERVATION PLAN Last Saved: Oct 21, 2014 11:55 AM Plotted: May 29, 2015 4:44 PM



TREES TO BE REMOVED

I.D.	TREE SPECIES	TRUNK DIA. (IN.)	CONDITION
191	N/A	30	N/A
195	HACKBERRY	13	FAIR
196	HACKBERRY	14	FAIR
197	CHERRY	13	FAIR
198	N/A	28	N/A
199	HACKBERRY	23	FAIR
200	HACKBERRY	14	FAIR
201	HACKBERRY	15	FAIR
202	N/A	11	DEAD
203	WALNUT	13	FAIR
204	HACKBERRY	8	FAIR
205	HACKBERRY	14	FAIR
210	HACKBERRY	10	FAIR



TREES TO BE REMOVED

I.D.	TREE SPECIES	TRUNK DIA. (IN.)	CONDITION
222	N/A	12	N/A
223	N/A	10	N/A
226	N/A	12	N/A
227	N/A	12	N/A
229	HACKBERRY	9	GOOD
234	N/A	14	N/A
235	ELM	12	FAIR
236	HACKBERRY	8	FAIR
237	HACKBERRY	8	FAIR
238	N/A	10	N/A
239	CHERRY	10	FAIR
240	MAPLE	10	FAIR
241	HACKBERRY	6	FAIR
242	HACKBERRY	13	FAIR
243	HACKBERRY	14	FAIR
244	HACKBERRY	9	FAIR
247	HACKBERRY	12	FAIR
248	MULBERRY	10	FAIR
249	HACKBERRY	10	FAIR

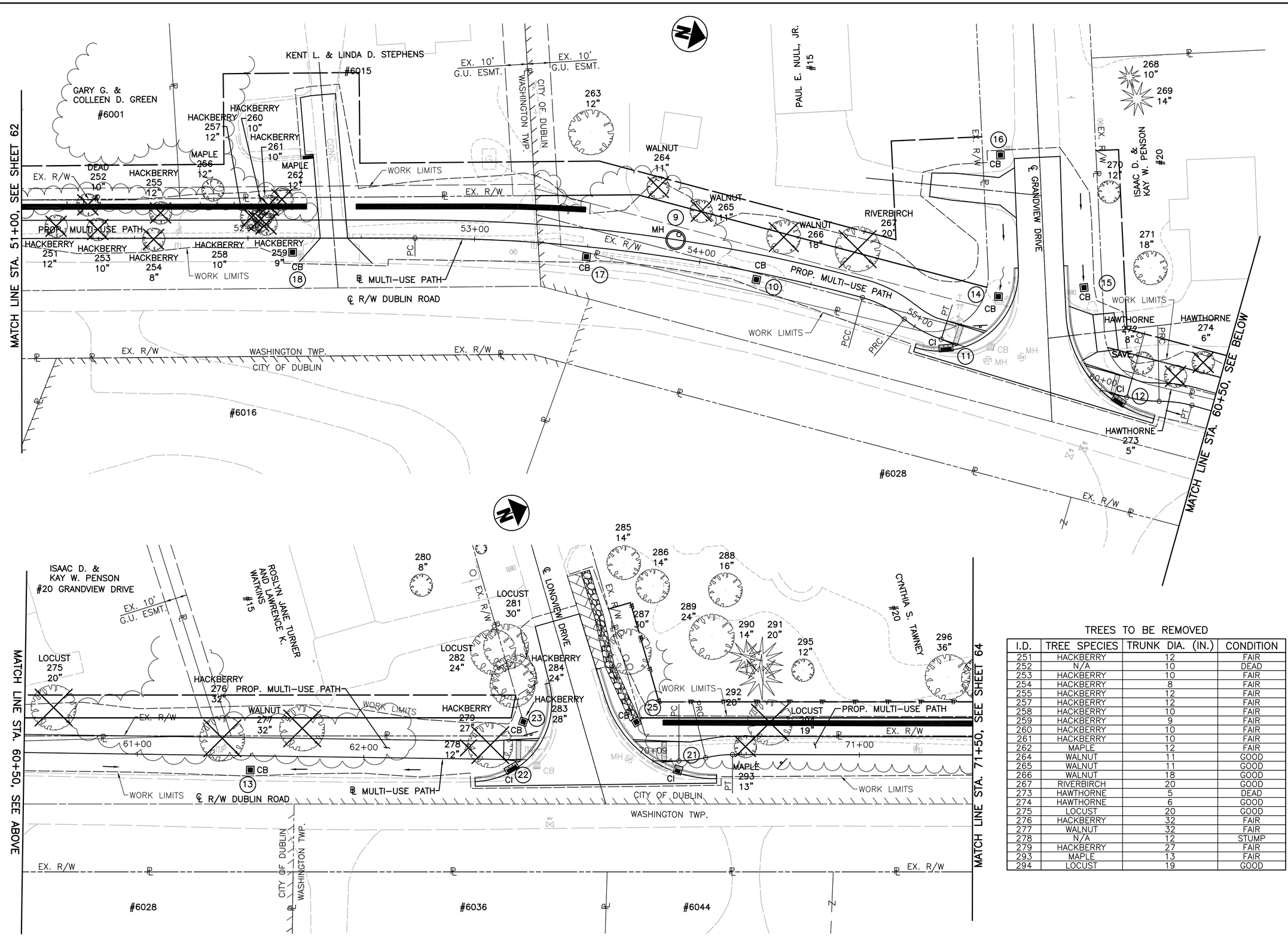
SCALE IN FEET 0 20 40

CALCULATED JWS
CHECKED TJS

TREE PRESERVATION PLAN
STA. 41+00 TO STA. 51+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\73608736\design\plan_set\rings to waterford\Tree Preservation Plan\73608736tp04.dwg TREE PRESERVATION PLAN Last Saved: Oct 21, 2014 11:57 AM Plotted: May 29, 2015 4:45 PM



TREES TO BE REMOVED

I.D.	TREE SPECIES	TRUNK DIA. (IN.)	CONDITION
251	HACKBERRY	12	FAIR
252	N/A	10	DEAD
253	HACKBERRY	10	FAIR
254	HACKBERRY	8	FAIR
255	HACKBERRY	12	FAIR
257	HACKBERRY	12	FAIR
258	HACKBERRY	10	FAIR
259	HACKBERRY	9	FAIR
260	HACKBERRY	10	FAIR
261	HACKBERRY	10	FAIR
262	MAPLE	12	FAIR
264	WALNUT	11	GOOD
265	WALNUT	11	GOOD
266	WALNUT	18	GOOD
267	RIVERBIRCH	20	GOOD
273	HAWTHORNE	5	DEAD
274	HAWTHORNE	6	GOOD
275	LOCUST	20	GOOD
276	HACKBERRY	32	FAIR
277	WALNUT	32	FAIR
278	N/A	12	STUMP
279	HACKBERRY	27	FAIR
293	MAPLE	13	FAIR
294	LOCUST	19	GOOD

0 20 40 SCALE IN FEET

CALCULATED JWS
CHECKED TJS

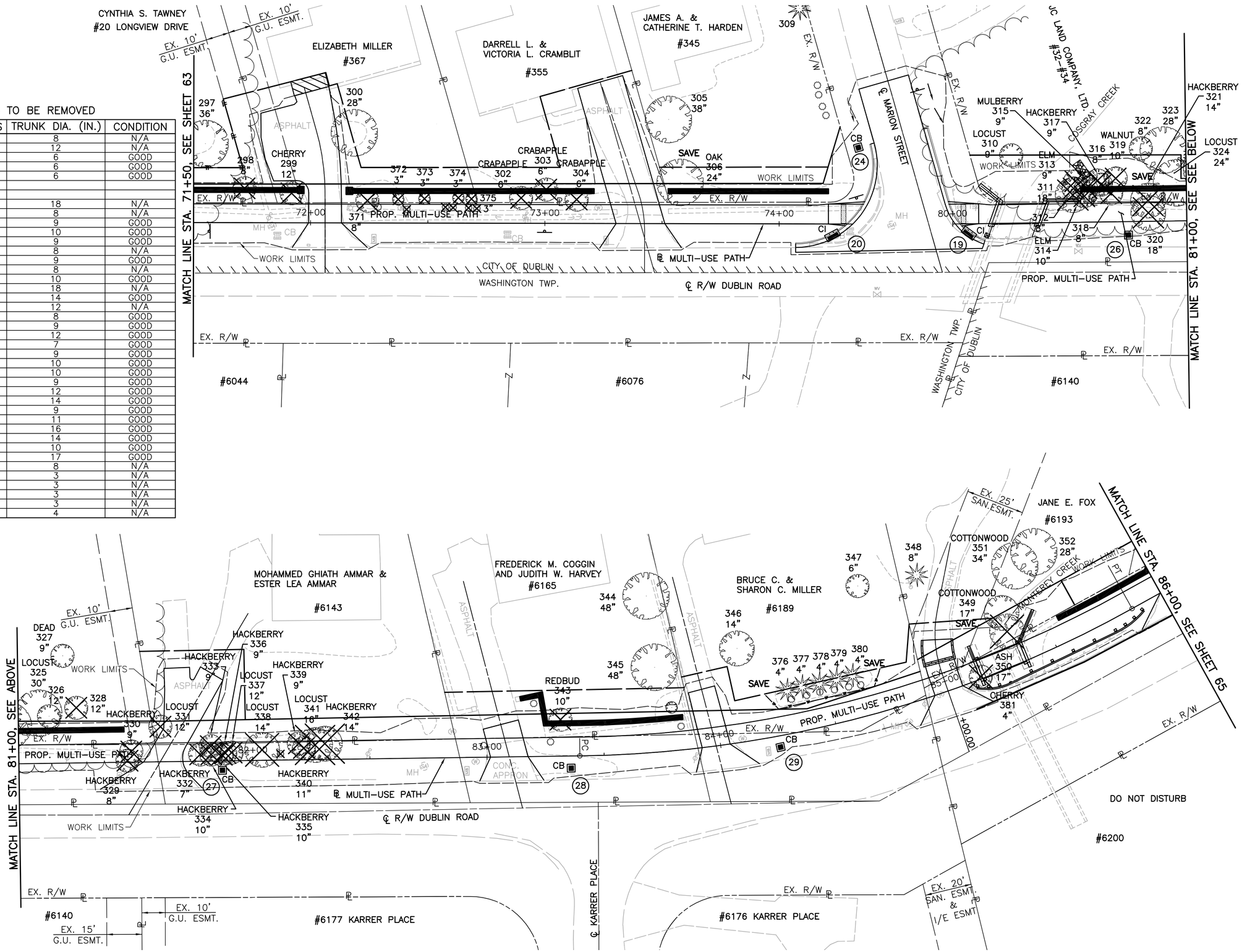
TREE PRESERVATION PLAN
STA. 51+00 TO STA. 71+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\1736087361\design\plan_set\rings to waterford\Tree Preservation Plan\1736087361p05.dwg TREE PRESERVATION PLAN Last Saved: Oct 22, 2014 10:40 AM Plotted: May 29, 2015 4:45 PM

TREES TO BE REMOVED

I.D.	TREE SPECIES	TRUNK DIA. (IN.)	CONDITION
298	N/A	8	N/A
299	CHERRY	12	N/A
302	CRABAPPLE	6	GOOD
303	CRABAPPLE	6	GOOD
304	CRABAPPLE	6	GOOD
307	NOT USED		
308	NOT USED		
311	N/A	18	N/A
312	N/A	8	N/A
313	ELM	9	GOOD
314	ELM	10	GOOD
315	MULBERRY	9	GOOD
316	N/A	8	N/A
317	HACKBERRY	9	GOOD
318	N/A	8	N/A
319	WALNUT	10	GOOD
320	N/A	18	N/A
321	HACKBERRY	14	GOOD
328	N/A	12	N/A
329	HACKBERRY	8	GOOD
330	HACKBERRY	9	GOOD
331	LOCUST	12	GOOD
332	HACKBERRY	7	GOOD
333	HACKBERRY	9	GOOD
334	HACKBERRY	10	GOOD
335	HACKBERRY	10	GOOD
336	HACKBERRY	9	GOOD
337	LOCUST	12	GOOD
338	LOCUST	14	GOOD
339	HACKBERRY	9	GOOD
340	HACKBERRY	11	GOOD
341	LOCUST	16	GOOD
342	HACKBERRY	14	GOOD
343	REDBUD	10	GOOD
350	ASH	17	GOOD
371	N/A	8	N/A
372	N/A	3	N/A
373	N/A	3	N/A
374	N/A	3	N/A
375	N/A	3	N/A
381	CHERRY	4	N/A



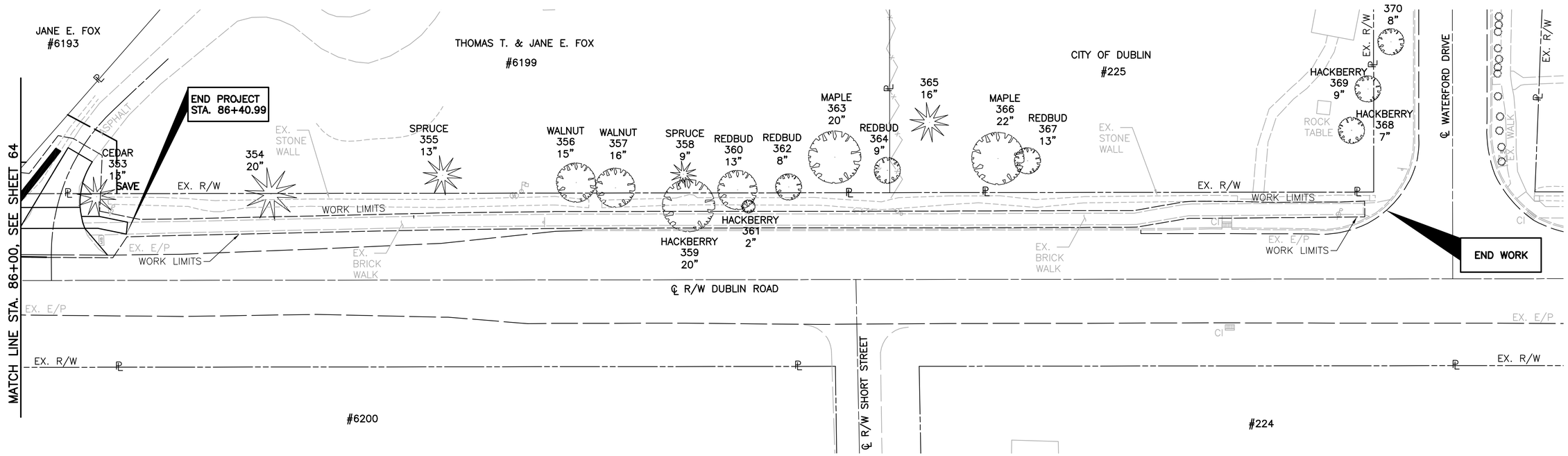
CALCULATED JWS
CHECKED TJS

SCALE IN FEET 0 20 40

TREE PRESERVATION PLAN
STA. 71+50 TO STA. 86+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, AARON u:\173608736\design\plan_set\rings to waterford\Tree Preservation Plan\173608736tp06.dwg TREE PRESERVATION PLAN Last Saved: Oct 22, 2014 10:55 AM Plotted: May 29, 2015 4:45 PM



SCALE IN FEET
0 20 40

CALCULATED JWS
CHECKED TJS

TREE PRESERVATION PLAN
STA. 86+00 AHEAD

DUBLIN ROAD SOUTH
MULTI-USE PATH

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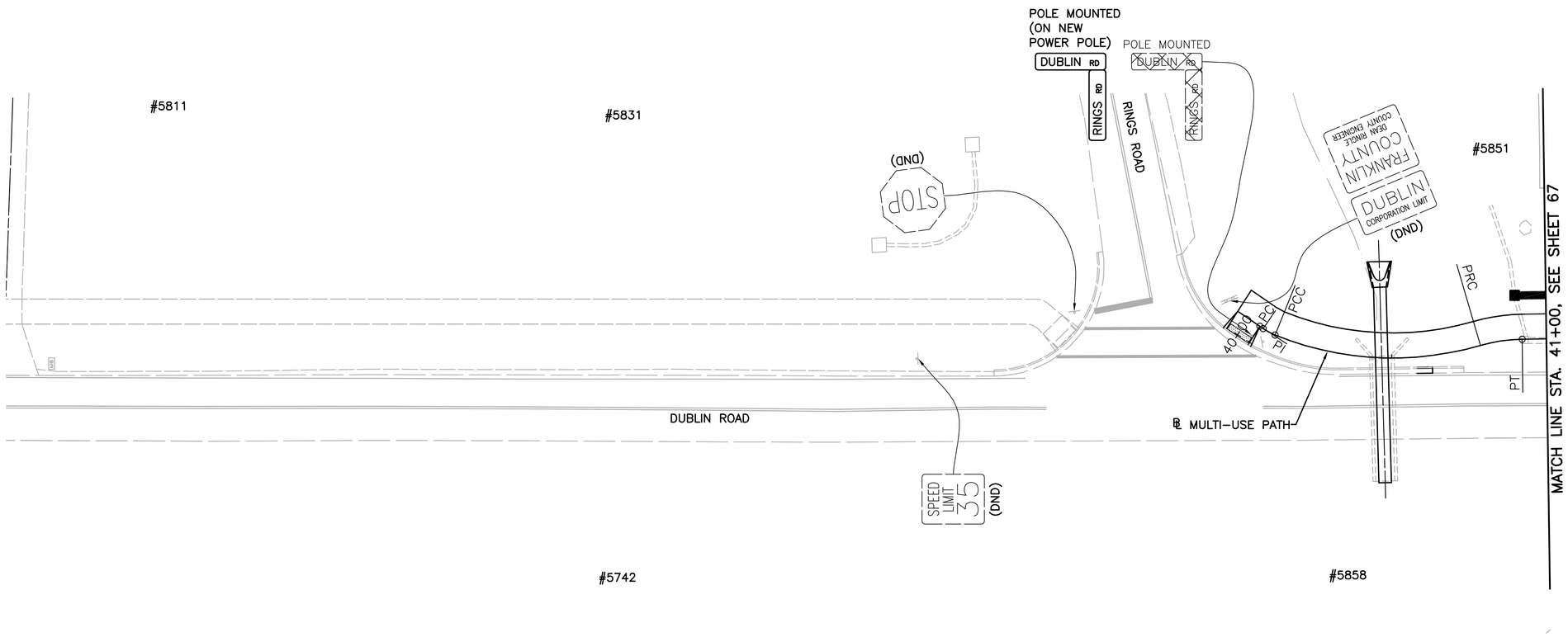


LEGEND:

- (SL) – STOP LINE, 24", WHITE
- (CW) – CROSSWALK LINE, 12", WHITE
- – PROPOSED SIGN
- – EXISTING SIGN

- – PROPOSED SIGN
- – EXISTING SIGN TO BE REMOVED & DISPOSED OF
- – EXISTING SIGN TO REMAIN

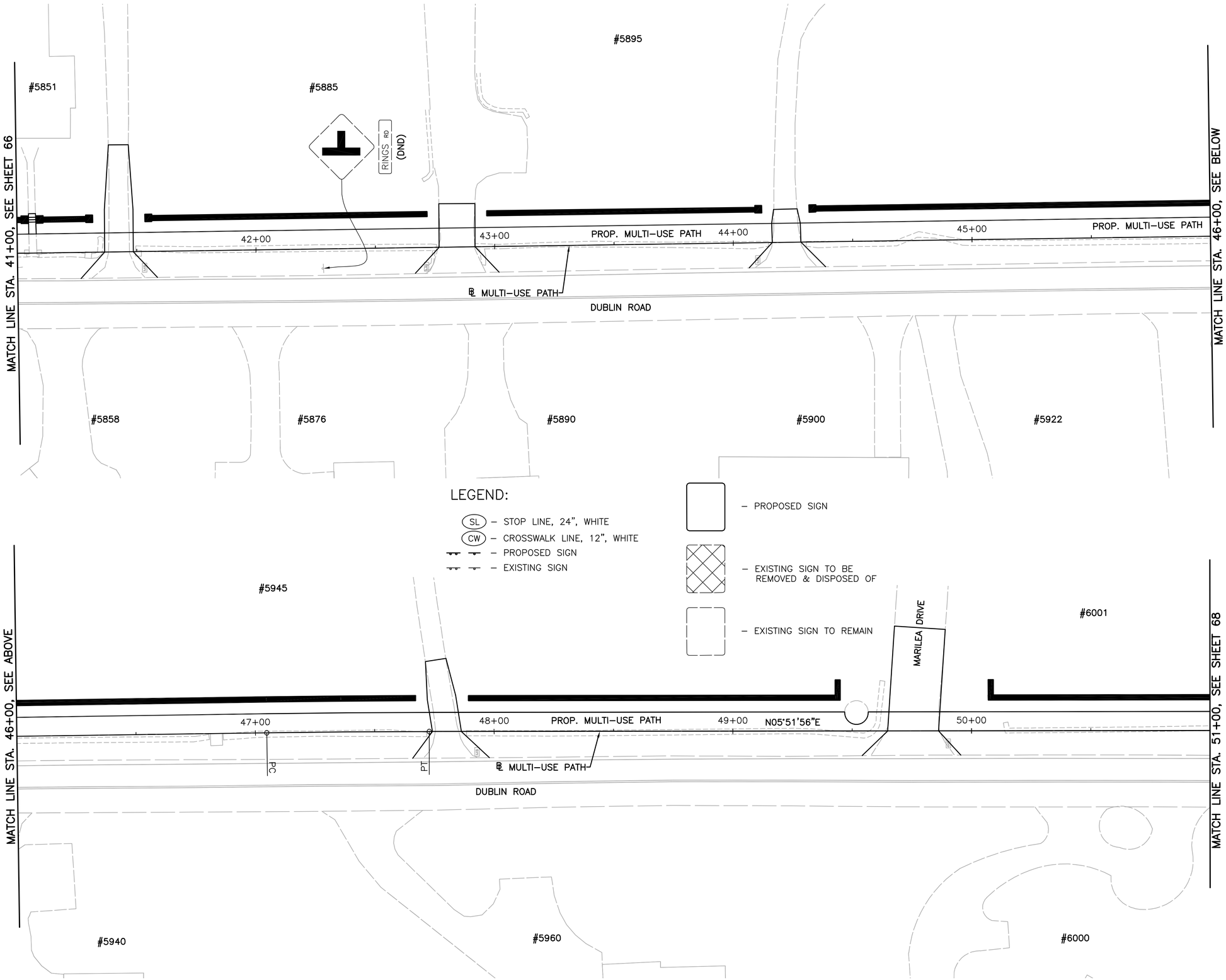
0 20 40
SCALE IN FEET

CALCULATED CNK
CHECKED TJS

TRAFFIC CONTROL PLAN
STA. 24+00 TO STA. 41+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\73608736\design\plan_set\rings to waterford\Traffic Control\73608736tc03.dwg TRAFFIC CONTROL PLAN Last Saved: Oct 21, 2014 12:32 PM Plotted: May 29, 2015 4:45 PM



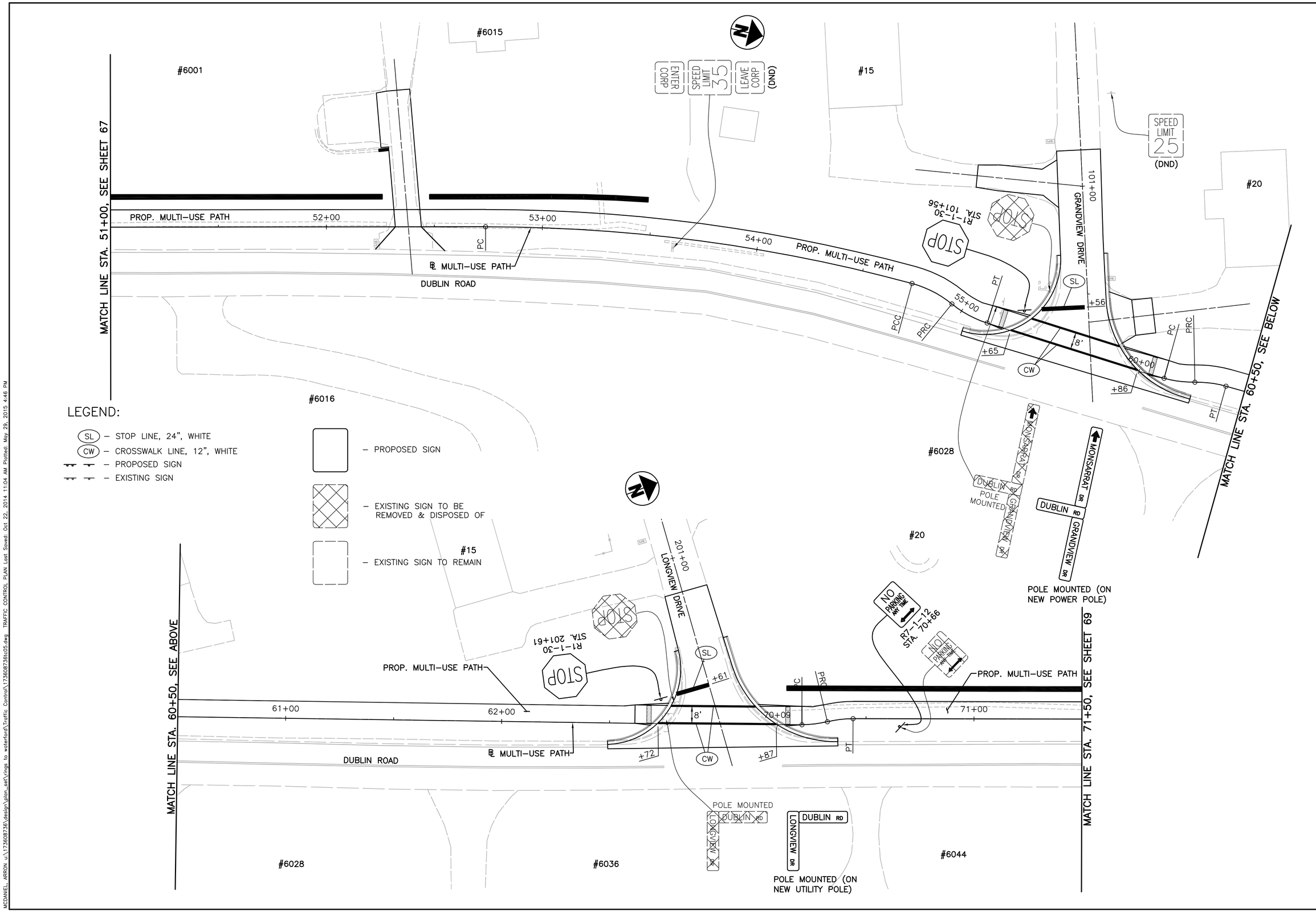
CALCULATED CNK
CHECKED TJS

SCALE IN FEET 0 20 40

TRAFFIC CONTROL PLAN
STA. 41+00 TO STA. 51+00

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Traffic Control\173608736c04.dwg TRAFFIC CONTROL PLAN Last Saved: Oct 21, 2014 12:27 PM Plotted: May 29, 2015 4:45 PM

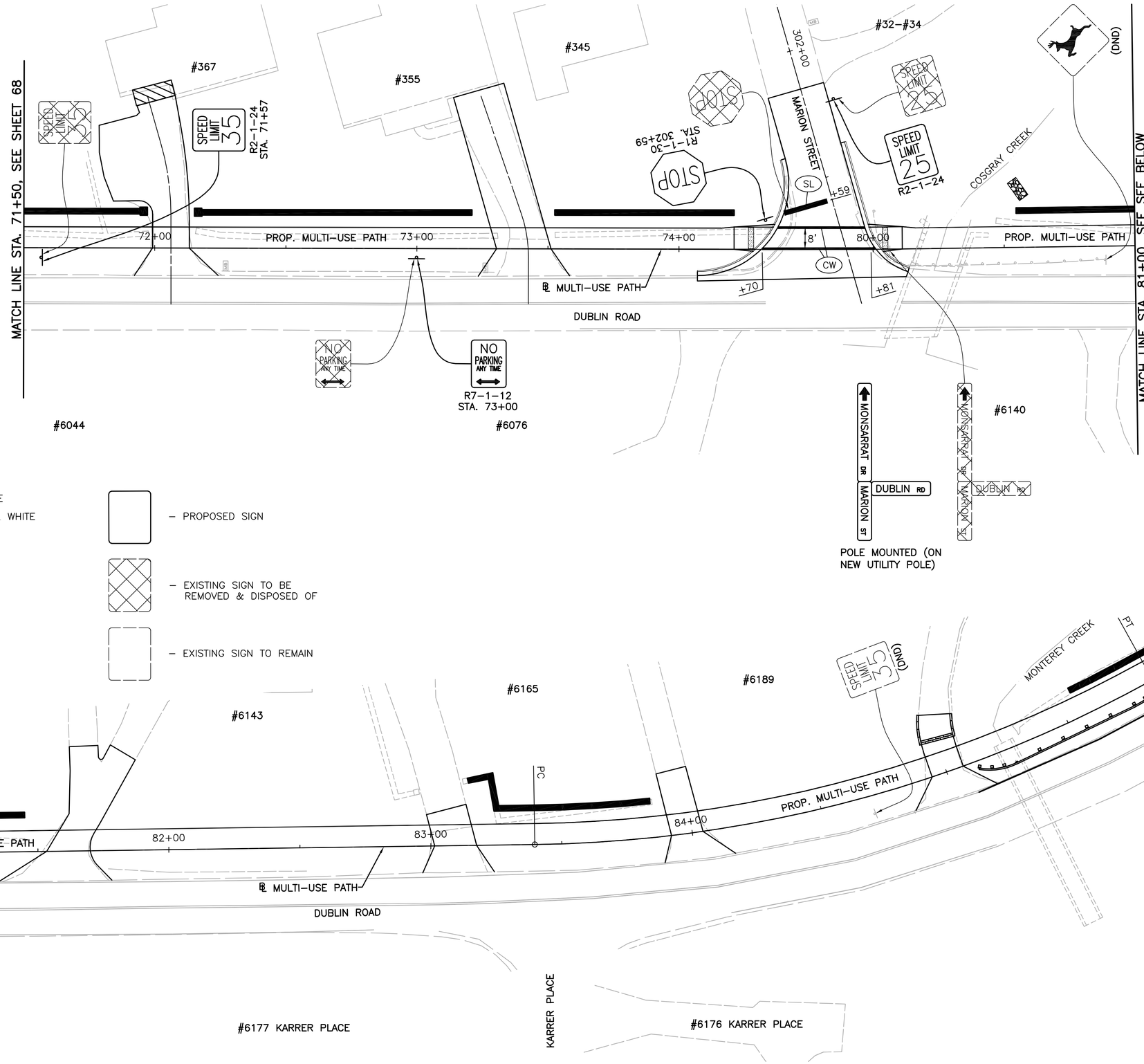


CALCULATED CNK
CHECKED TJS

TRAFFIC CONTROL PLAN
STA. 51+00 TO STA. 71+50

DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, AARON u:\173608736\design\plan_set\rings to waterford\Traffic Control\173608736tc05.dwg TRAFFIC CONTROL PLAN Last Saved: Oct 22, 2014 11:04 AM Plotted: May 29, 2015 4:46 PM



LEGEND:

- (SL) – STOP LINE, 24", WHITE
- (CW) – CROSSWALK LINE, 12", WHITE
- – PROPOSED SIGN
- – EXISTING SIGN
- – PROPOSED SIGN
- – EXISTING SIGN TO BE REMOVED & DISPOSED OF
- – EXISTING SIGN TO REMAIN

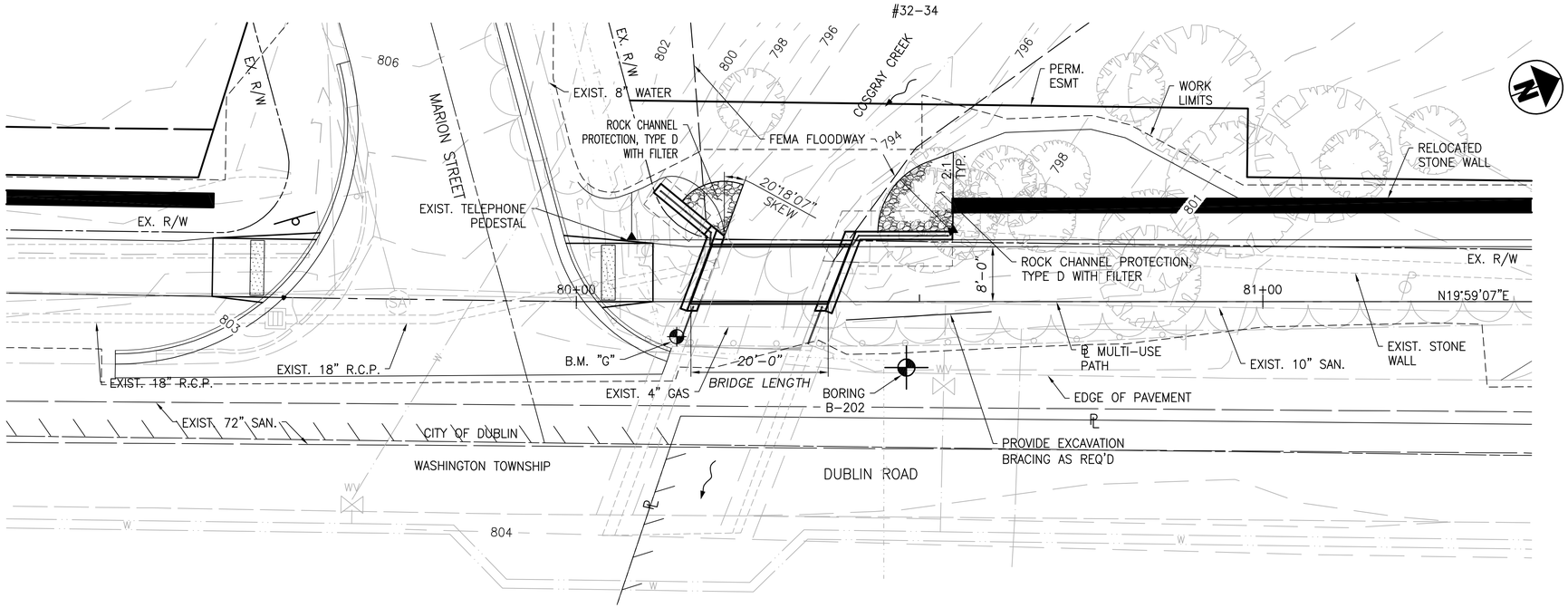
SCALE IN FEET: 0, 20, 40

CALCULATED CNK
CHECKED TJS

TRAFFIC CONTROL PLAN
STA. 71+50 AHEAD

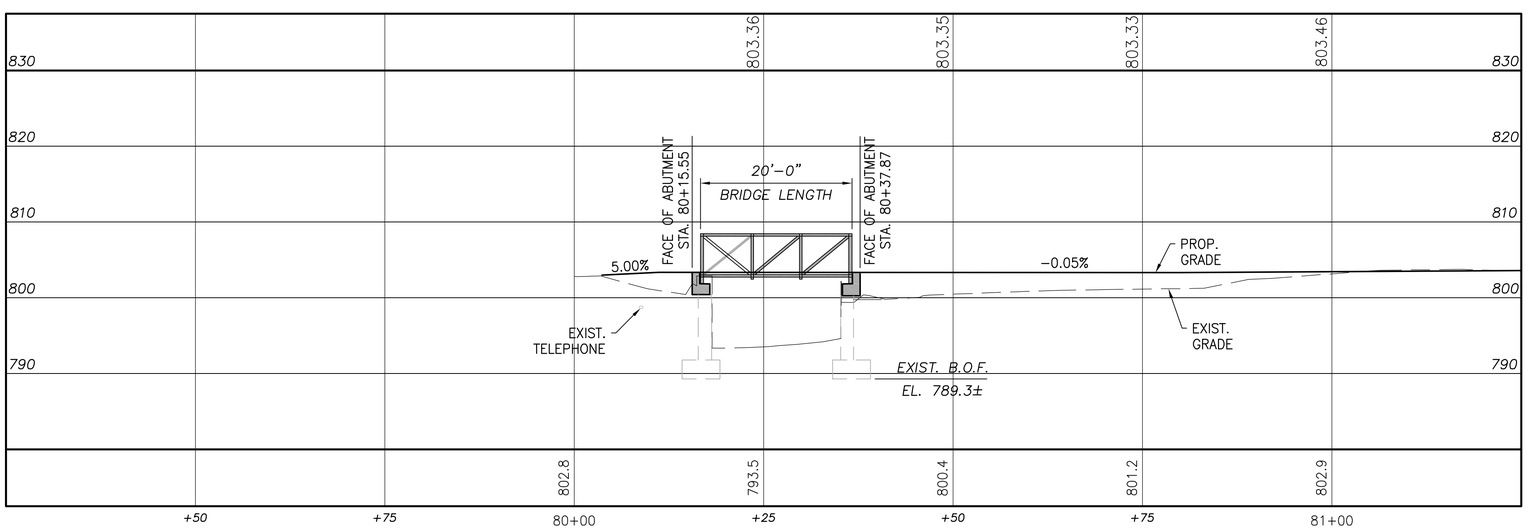
DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, AARON u:\173608736\design\plan_set\rings to waterford\Traffic Control\173608736tc06.dwg TRAFFIC CONTROL PLAN Last Saved: Oct 21, 2014 12:31 PM Plotted: May 29, 2015 4:46 PM



PLAN & PROFILE

0 5 10
FEET



PROFILE ALONG BASELINE

0 5 10
FEET

100-YEAR FLOOD ELEVATION 802

LEGEND:

ELEV. – ELEVATION
STA. – STATION
F/F – FACE TO FACE
CL. – CLEARANCE
B.O.F. – BOTTOM OF FOOTING
EXP. – EXPANSION
T&B – TOP & BOTTOM
E.F. – EACH FACE

B.M. "G"
CHISELED SQUARE ON THE SOUTHWEST WINGWALL OF A CULVERT ON THE NORTH SIDE OF MARION STREET, BEING 16 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.

N: 762753.43
E: 1796926.17
ELEV = 802.94 (88)

PEAK FLOW (cfs) (FROM CITY OF DUBLIN)

	2 YEAR	5 YEAR	100 YEAR
COSGRAY CREEK:	126	217	664

NOTES:

1.) DENOTES SOIL BORING LOCATION.

2.) DENOTES BENCH MARK LOCATION. SEE ROADWAY SCHEMATIC PLAN

3.) EARTHWORK LIMITS SHOWN ARE APPROXIMATE, ACTUAL SLOPES SHALL CONFORM TO ROADWAY PLAN CROSS SECTIONS.

4.) ELEVATIONS BASED ON 1988 NORTH AMERICAN VERTICAL DATUM.

5.) FOR REFERENCE POINTS, SEE SHT. 5/84

EXISTING STRUCTURE:

TYPE: SINGLE SPAN PRESTRESSED CONCRETE BOX BEAM
SPAN: 19FT (16 FT FACE/FACE WALL NORMAL)
ROADWAY: 30' FACE/FACE GUARDRAIL
SKEW: 20 DEGREES
LOADING: HS20-44 & ALTERNATE MILITARY LOADING
DECK: REINFORCED CONCRETE
WEARING SURFACE: ASPHALT
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
SUPERELEVATION: NONE
DATE BUILT: 1988
SFN: 2535009

PROPOSED STRUCTURE:

TYPE: PRE ENGINEERED TRUSS BRIDGE
SPAN: 20'-0" BRIDGE LENGTH
ROADWAY: 8' F/F TRUSSES
SKEW: 20°18'07" LF
LOADING: 85 PSF LOAD AND 8,000 LB VEHICLE LOAD
DECK: WOOD DECK
WEARING SURFACE: WOOD DECK
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
DECK CROSS SLOPE: LEVEL

Stantec

REVIEWED	DATE
GT	05/12

DRAWN	REVISED
TWB	

DESIGNED	CHECKED
BSM	JWE

SITE PLAN
MULTI-USE PATH PEDESTRIAN BRIDGE NORTH OF MARION STREET (B-2)

DUBLIN ROAD SOUTH
MULTI-USE PATH

1 / 5

70/84

amcdaniel u:\173608736\design\plan_set\rings to waterford\Bridges\173608736_sp05.dwg SAVED: Wednesday, December 03, 2014 11:30 AM PLOTTED: Friday, May 29, 2015 4:46 PM

ESTIMATED QUANTITIES			
ITEM NO.	QUANTITY	UNIT	DESCRITPTION
202	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED
503	LUMP	LUMP	COFFERDAMS, CRIBS, AND SHEETING
503	LUMP	LUMP	UNCLASSIFIED EXCAVATION
511	40	CY	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN
518	2	CY	POROUS BACKFILL WITH FILTER FABRIC
564	38	SQ. YD.	SEALING OF CONCRETE SURFACES (NON–EPOXY)
SPECIAL	LUMP	LUMP	STRUCTURE MISC.: 20' PRE–ENGINEERED TRUSS PEDESTRIAN BRIDGE
601	8	CY	ROCK CHANNEL PROTECTION TYPE D, WITH FILTER
SPEC.	37	FT	RAILING (42" HIGH METAL RAILING)

DESIGN SPECIFICATIONS:
THIS STRUCTURE CONFORMS TO THE "LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND THE ODOT BRIDGE DESIGN MANUAL EXCEPT AS NOTED.

DESIGN DATA:
DESIGN LOADING: 85 PSF AND 8,000 LB. VEHICLE

CONCRETE CLASS C – COMPRESSIVE STRENGTH 4,000 P.S.I.
(SUBSTRUCTURE)

REINFORCING STEEL – MINIMUM YIELD STRENGTH 60,000 P.S.I. (NON–EPOXY)

PREFABRICATED BRIDGE:
SUPERSTRUCTURE SHALL BE DESIGNED BY PRE–APPROVED PREFABRICATED BRIDGE MANUFACTURER. STANTEC IS RESPONSIBLE FOR THE DESIGN OF THE SUBSTRUCTURE. SEE PREFABRICATED BRIDGE SPECIFICATIONS.

PRE–APPROVED BRIDGE MANUFACTURERS

1. CONTINENTAL BRIDGE (CONTECH ENGINEERED SOLUTIONS)
   9025 CENTRE POINT DRIVE, SUITE 400
   WESTCHESTER, OH 45069

2. STEADFAST BRIDGES (CONTECH ENGINEERED SOLUTIONS)
   9025 CENTRE POINT DRIVE, SUITE 400
   WESTCHESTER, OH 45069

FOUNDATION BEARING RESISTANCE:
ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LOAD PRESSURE OF 2.1 KIPS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 3.8 KSF.

SOILS ENCOUNTERED AT THE BEARING ELEVATION DURING CONSTRUCTION MUST MEET OR EXCEED THE REQUIRED BEARING CAPACITY. IF THEY DON'T, OVEREXCAVATION IS TO BE PERFORMED UNTIL THIS REQUIREMENT IS MET.

THE CONTRACTOR IS TO SET FOUNDATIONS AT ELEVATIONS SHOWN UNLESS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL VERIFY WITH A GEOTECHNICAL ENGINEER THAT EACH FOOTING PLACED IS BEARING ON DESIGN MATERIAL. IF THE GEOTECHNICAL ENGINEER DETERMINES THAT DESIGN MATERIAL IS REACHED PRIOR TO THE ELEVATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION SUPPORTING THE REVISED FOUNDATION ELEVATION AND COMPETENCY OF MATERIAL.

511 CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN
THE PAYMENT FOR THE COST OF ALL MATERIALS AND LABOR ASSOCIATED WITH THE DETAILING, FABRICATION AND ERECTION OF THE NON–EPOXY COATED REINFORCING STEEL INCLUDING DRILLING FOR THE DOWELS AND THE ADHESIVE IS INCLUDED IN ITEM 511 CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN.

Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	02/12
CHECKED	REVISED		
JWE			

ESTIMATED QUANTITIES & GENERAL NOTES

DUBLIN ROAD SOUTH
MULTI–USE PATH

2 / 5

71
84

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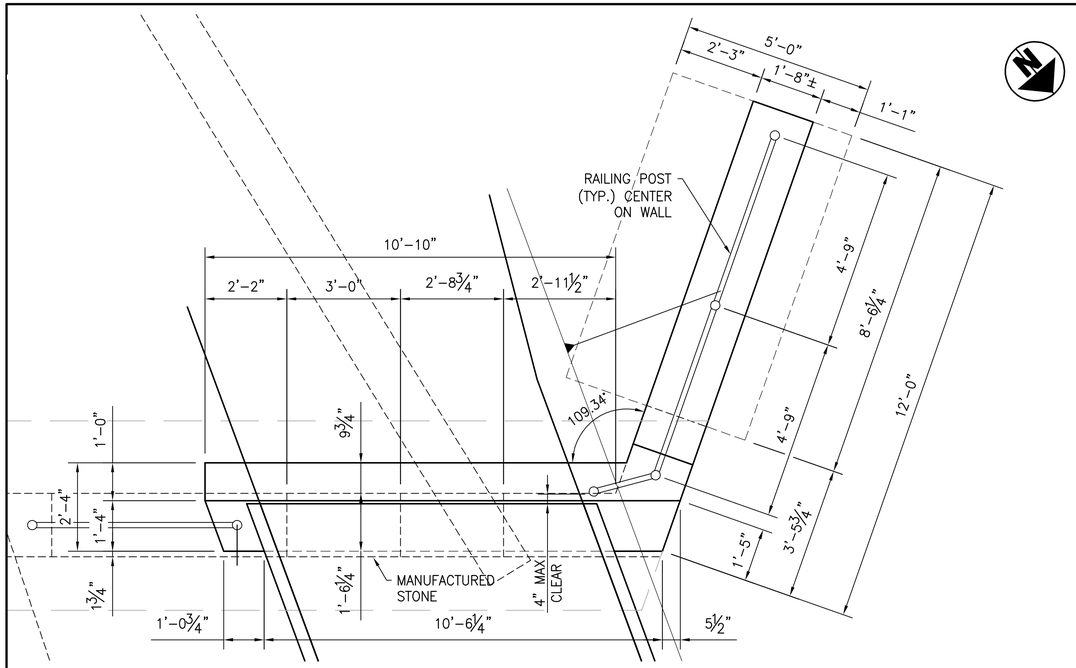
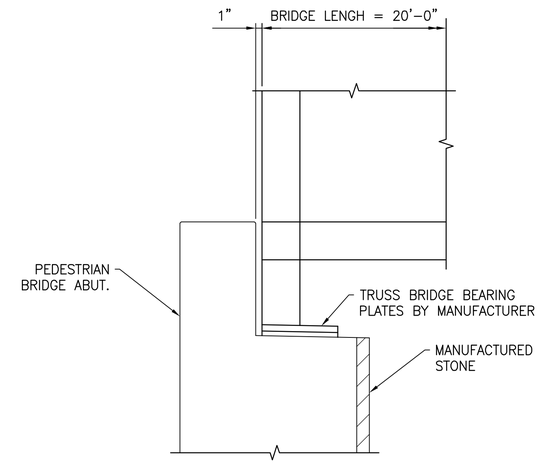
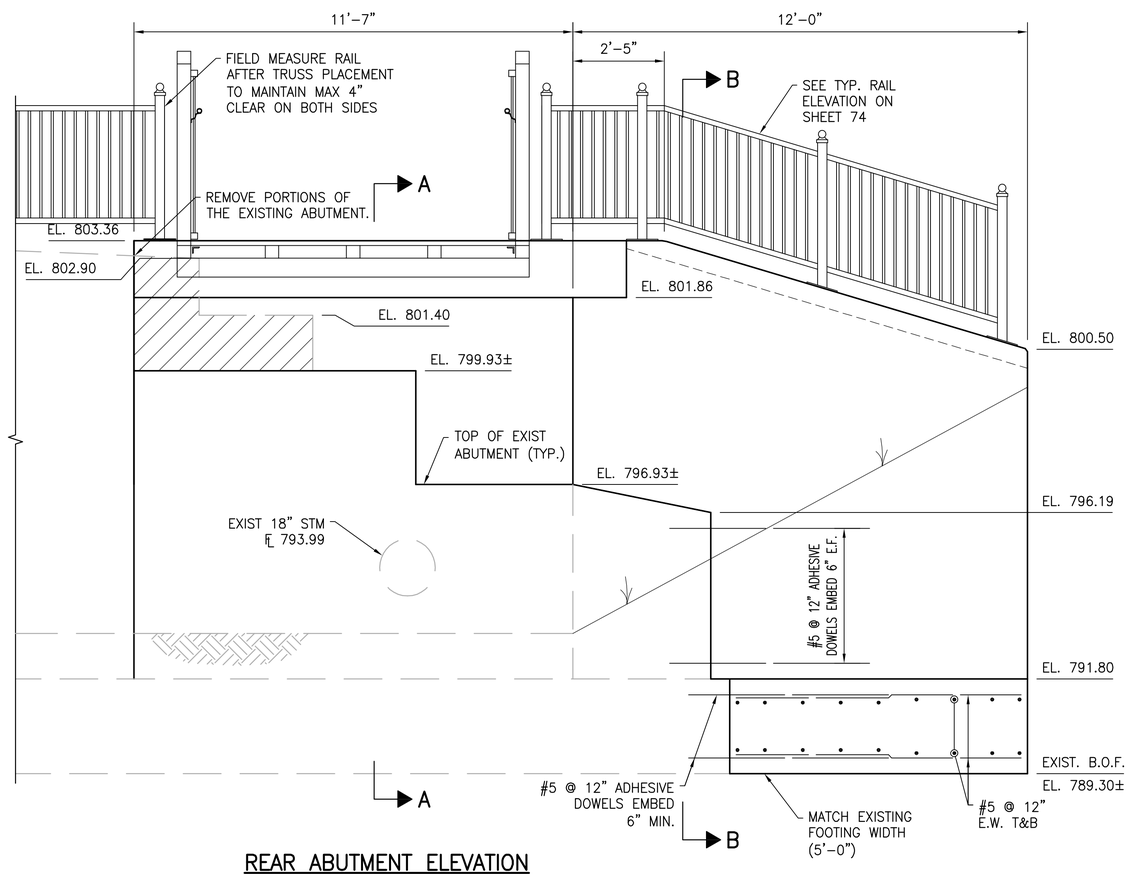


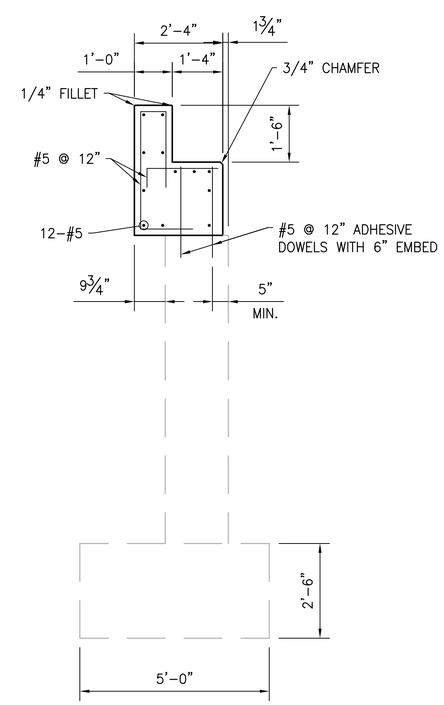
REAR ABUTMENT PLAN



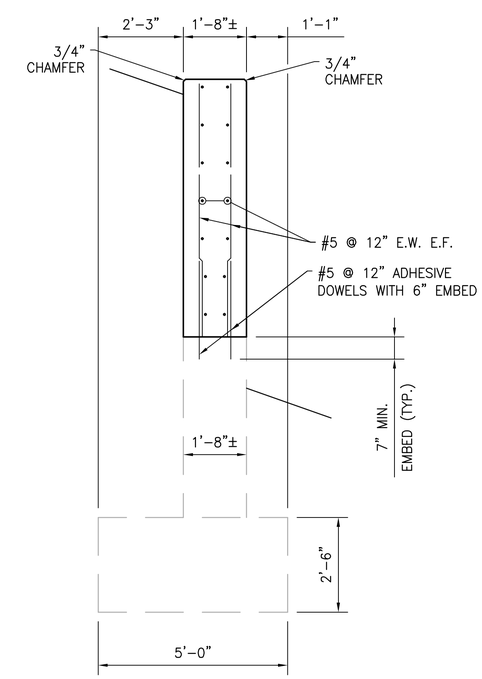
TRUSS BRIDGE BEARING DETAIL



REAR ABUTMENT ELEVATION



SECTION A–A



SECTION B–B

Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	05/12
CHECKED	REVISED		
JWE			

REAR ABUTMENT DETAILS

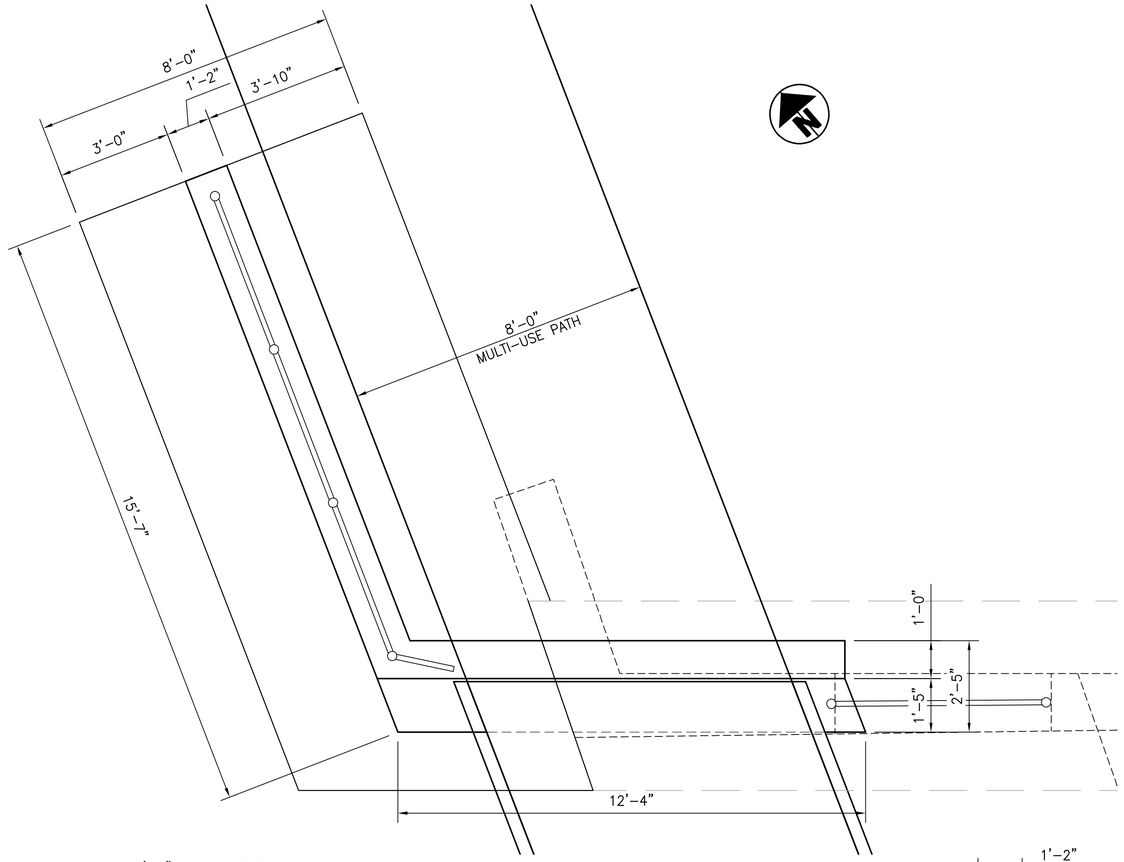
MULTI-USE PATH PEDESTRIAN BRIDGE NORTH OF MARION STREET

DUBLIN ROAD SOUTH MULTI-USE PATH

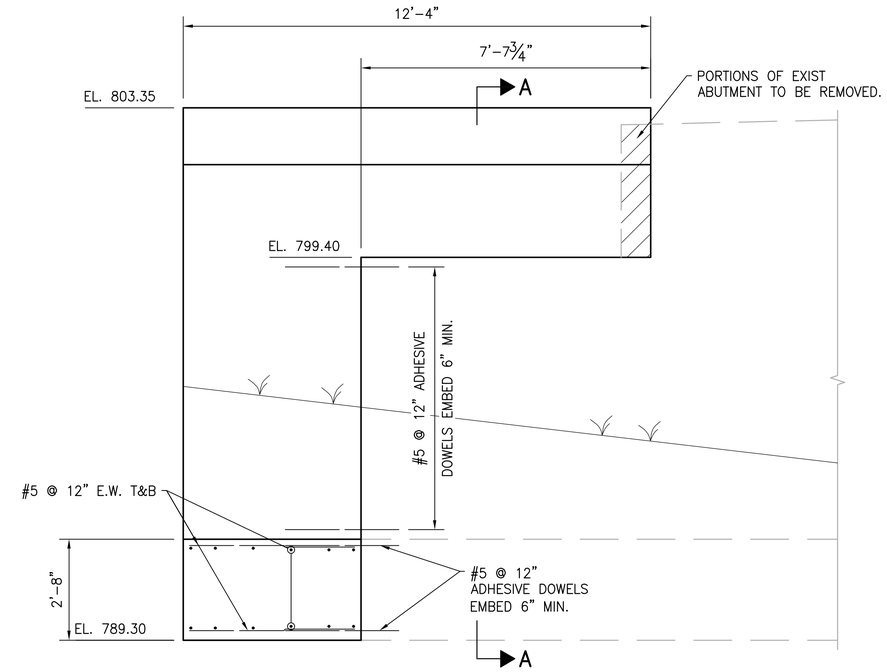
3 / 5

72 / 84

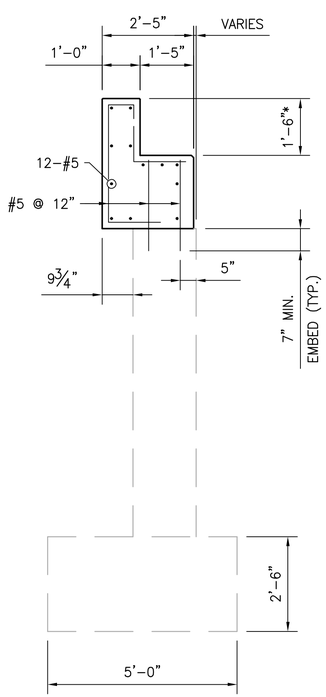
amcdaniel u:\173608736\design\plan_set\rings to waterford\Bridges\173608736_ab05.dwg SAVED: Wednesday, October 22, 2014 1:13 PM PLOTTED: Friday, May 29, 2015 4:46 PM



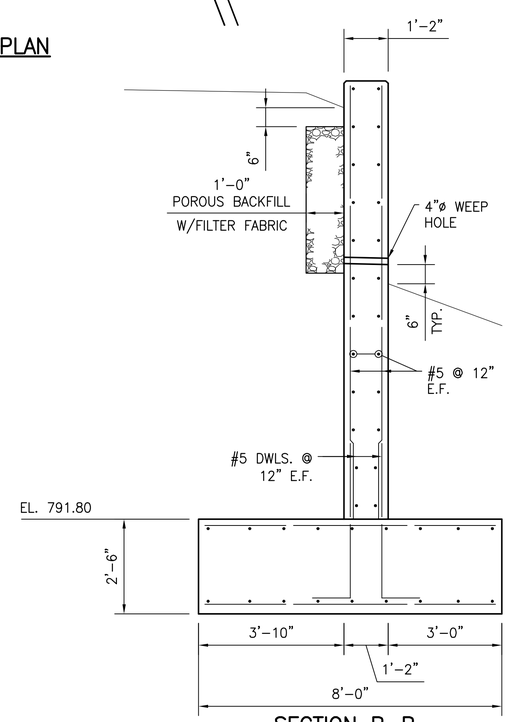
FORWARD ABUTMENT PLAN



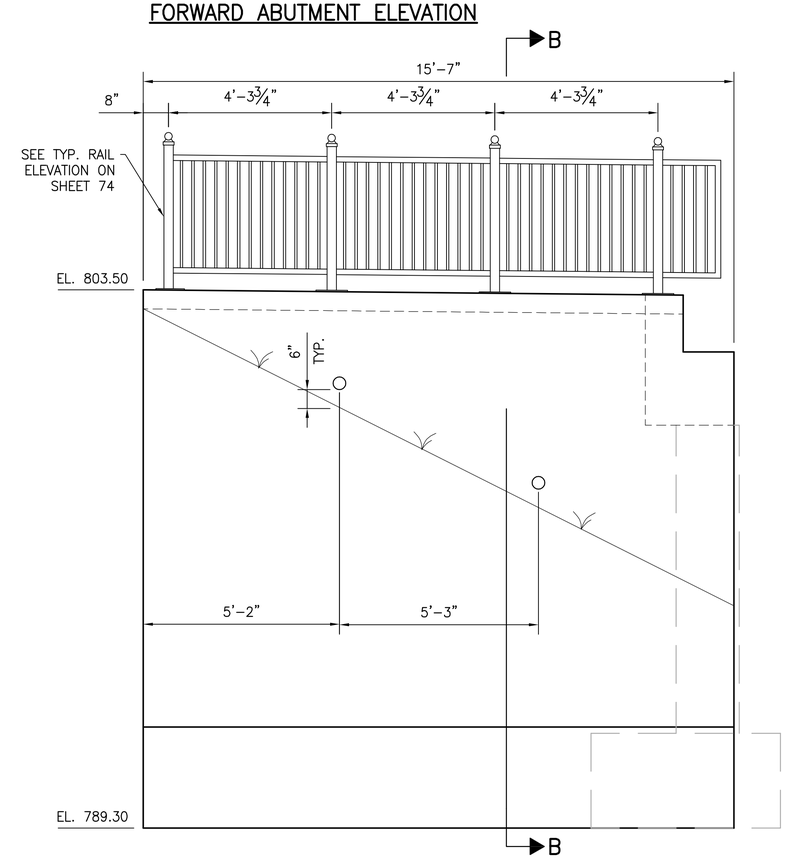
FORWARD ABUTMENT ELEVATION



SECTION A-A



SECTION B-B



WINGWALL ELEVATION

Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	02/12
CHECKED	REVISED		
JWE			

FORWARD ABUTMENT DETAILS

MULTI-USE PATH PEDESTRIAN BRIDGE NORTH OF MARION STREET

DUBLIN ROAD SOUTH MULTI-USE PATH

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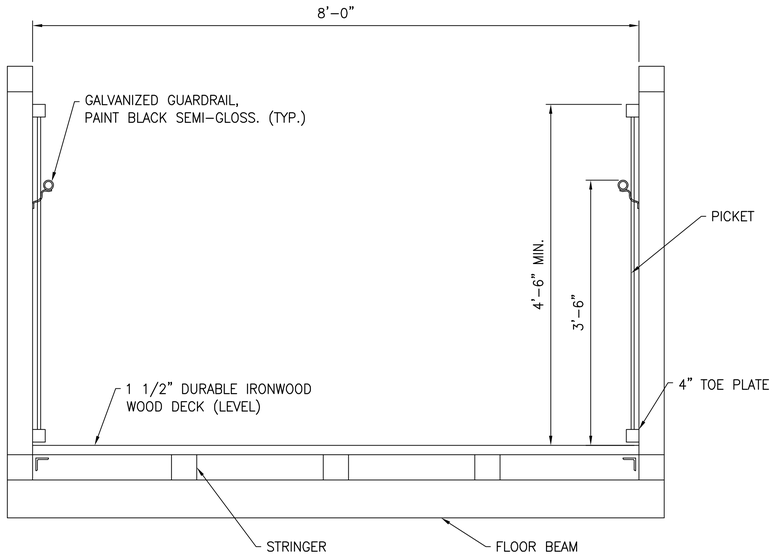
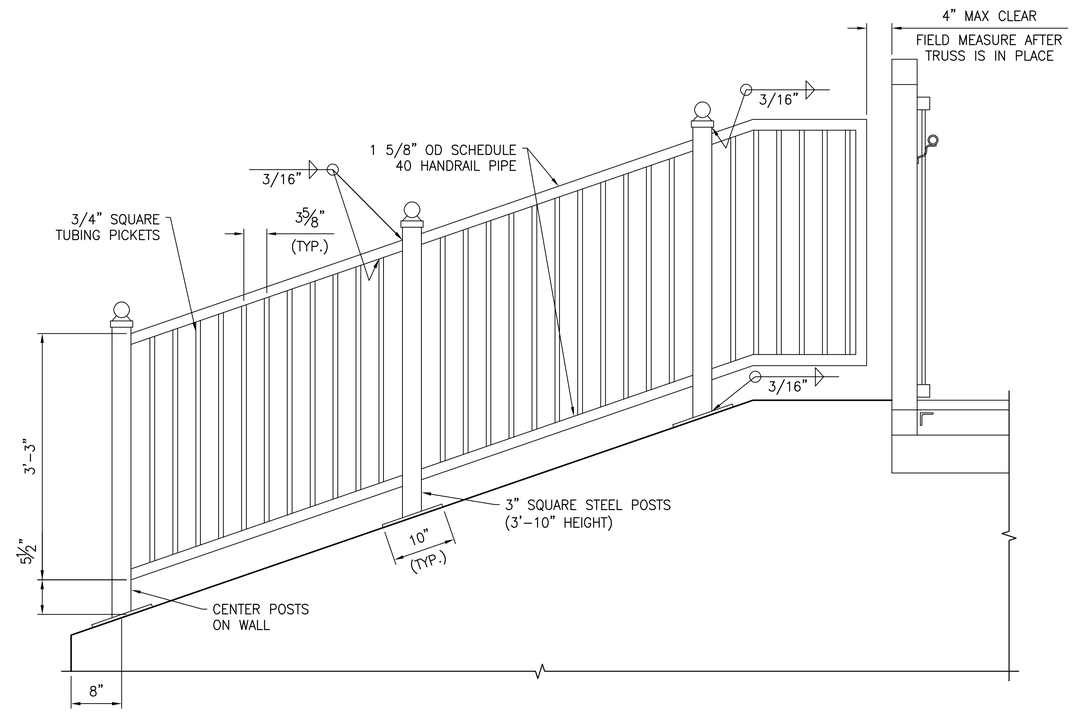


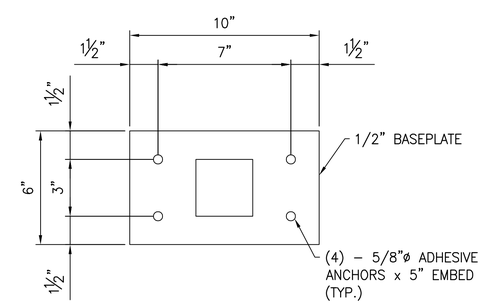
TYPICAL SECTION – PRE-ENGINEERED BRIDGE

TYPICAL B-1, B-2, B-3



TYPICAL RAILING ELEVATION

ALL MATERIAL FINISH USING 1 COAT PRIMER AND 2 SHOP COATS OF SHERWIN WILLIAMS SEMI-GLOSS BLACK.



BASEPLATE DETAIL

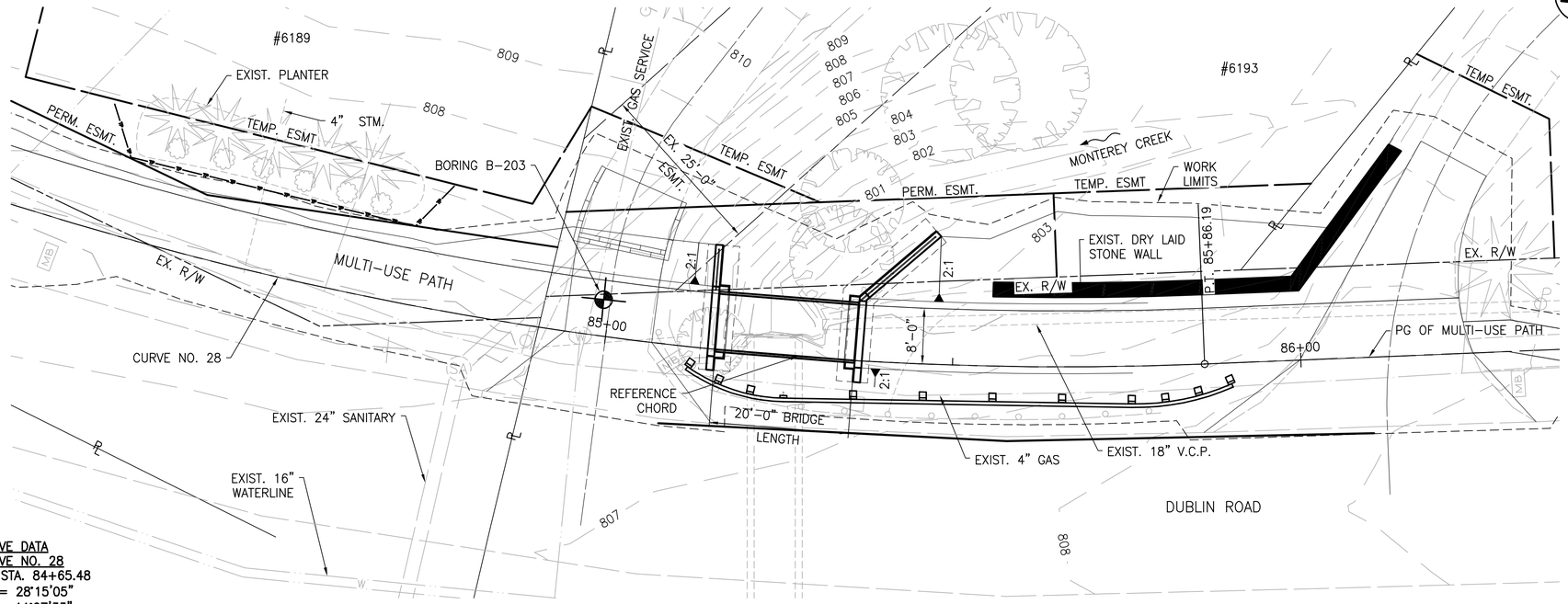
ALL MATERIAL FINISH USING 1 COAT PRIMER AND 2 SHOP COATS OF SHERWIN WILLIAMS SEMI-GLOSS BLACK.

Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	05/12
CHECKED	REVISED		
JWE			

TRANSVERSE SECTION

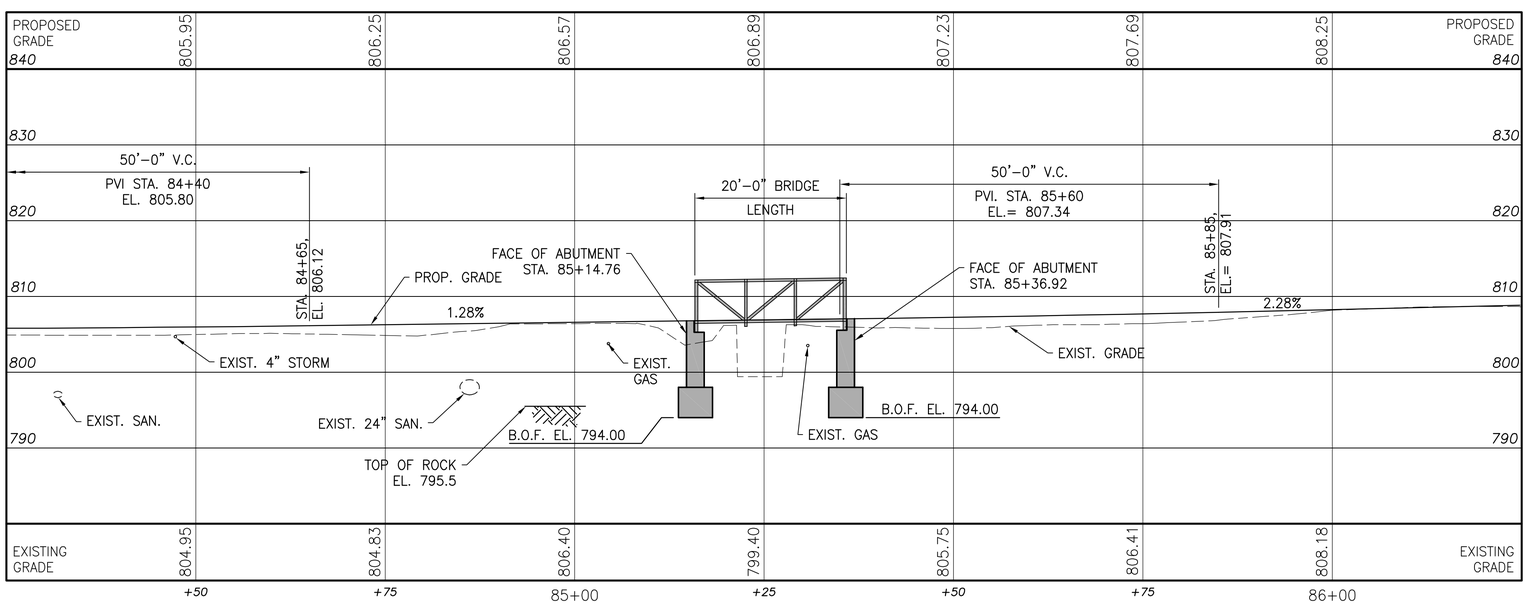
DUBLIN ROAD SOUTH
MULTI-USE PATH



PLAN & PROFILE

0 5 10
FEET

CURVE DATA
CURVE NO. 28
P.I. STA. 84+65.48
Δ = 28°15'05"
Dc = 11°27'33"
R = 500.00'
T = 125.83'
L = 246.54'
E = 15.59'
P.C. STA. 83+39.65
P.T. STA. 85+86.19



PROFILE ALONG BASE LINE

LEGEND:

ELEV. – ELEVATION
STA. – STATION
F/F – FACE TO FACE
CL. – CLEARANCE
B.O.F. – BOTTOM OF FOOTING
EXP. – EXPANSION
T&B – TOP & BOTTOM
E.F. – EACH FACE

T.B.M. "G"

CHISELED SQUARE ON THE SOUTHWEST WINGWALL OF A CULVERT ON THE NORTH SIDE OF MARION STREET, BEING 16 FEET LEFT OF THE CENTERLINE OF DUBLIN ROAD RIGHT-OF-WAY.

N: 762753.43
E: 1796926.17
ELEV = 802.94 (88)

PEAK FLOW (cfs) (FROM THE CITY OF DUBLIN

	2 YEAR	5 YEAR	100 YEAR
MONTEREY CREEK:	92	114	231

NOTES:

1.) DENOTES SOIL BORING LOCATION.

2.) DENOTES BENCH MARK LOCATION. SEE ROADWAY SCHEMATIC PLAN

3.) EARTHWORK LIMITS SHOWN ARE APPROXIMATE, ACTUAL SLOPES SHALL CONFORM TO ROADWAY PLAN CROSS SECTIONS.

4.) ELEVATIONS BASED ON 1988 NORTH AMERICAN VERTICAL DATUM.

5.) FOR REFERENCE POINTS, SEE SHT. 5/84

EXISTING STRUCTURE:

TYPE: 6' WIDE X 5.7' HIGH CONCRETE CULVERT
SPANS: 6' FACE/FACE WALL
ROADWAY: 30' FACE/FACE GUARDRAIL
SKEW: NONE
LOADING: UNKNOWN
DECK: NONE
WEARING SURFACE: ASPHALT
APPROACH SLABS: NONE
ALIGNMENT: 11.5 DEGREES CURVE
SUPERELEVATION: NONE
DATE BUILT: UNKOWN
SFN: NONE

PROPOSED STRUCTURE:

TYPE: PRE ENGINEERED TRUSS BRIDGE
SPAN: 20'-0" BRIDGE LENGTH
ROADWAY: 8'-0" F/F TRUSSES
SKEW: NONE
LOADING: 85 PSF LIVE LOAD AND 8,000 LB VEHICLE LIVE LOAD
DECK: WOOD DECK
WEARING SURFACE: WOOD DECK
APPROACH SLABS: NONE
ALIGNMENT: 11°27'33" DEGREE CURVE
CROSS SLOPE: LEVEL

Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	05/12
CHECKED	REVISED		
JWE			

SITE PLAN
MULTI-USE PATH PEDESTRIAN BRIDGE OVER MONTEREY CREEK

DUBLIN ROAD SOUTH
MULTI-USE PATH

1 / 5

75/84

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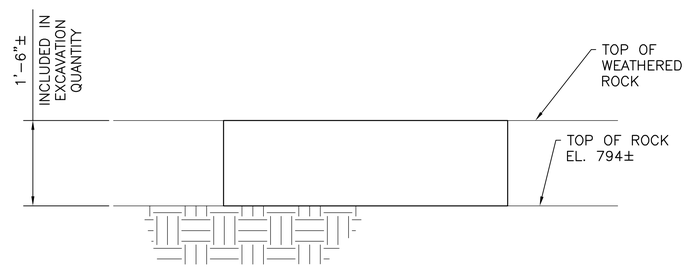


TYP. EXCAVATION OF WEATHERED ROCK

ESTIMATED QUANTITIES			
ITEM NO.	QUANTITY	UNIT	DESCRITPTION
202	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED
503	LUMP	LUMP	COFFERDAMS, CRIBS AND SHEETING
503	LUMP	LUMP	UNCLASSIFIED EXCAVATION
511	51	CY	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN
518	4	CY	POROUS BACKFILL WITH FILTER FABRIC
564	24	SQ. YD.	SEALING OF CONCRETE SURFACES (NON EPOXY)
SPECIAL	LUMP	LUMP	STRUCTURE MISC.: 20' PRE-ENGINEERED TRUSS PEDESTRIAN BRIDGE
SPECIAL	150	SF	MANUFACTURED STONE
SPECIAL	90	LF	POLYURETHANE CAULKING FOR STONE VENEER
SPEC.	20	FT	RAILING (42" HIGH METAL RAILING)

DESIGN SPECIFICATIONS:
THIS STRUCTURE CONFORMS TO THE "LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND THE ODOT BRIDGE DESIGN MANUAL EXCEPT AS NOTED.

DESIGN DATA:
DESIGN LOADING: 85 PSF AND 8,000 LB. VEHICLE

CONCRETE CLASS C – COMPRESSIVE STRENGTH 4,000 P.S.I.
(SUBSTRUCTURE)

REINFORCING STEEL – MINIMUM YIELD STRENGTH 60,000 P.S.I. (NON-EPOXY)

PREFABRICATED BRIDGE:
SUPERSTRUCTURE SHALL BE DESIGNED BY PRE-APPROVED PREFABRICATED BRIDGE MANUFACTURER. STANTEC IS RESPONSIBLE FOR THE DESIGN OF THE SUBSTRUCTURE. SEE PREFABRICATED BRIDGE SPECIFICATIONS.

PRE-APPROVED BRIDGE MANUFACTURERS

1. CONTINENTAL BRIDGE (CONTECH ENGINEERED SOLUTIONS)
   9025 CENTRE POINT DRIVE, SUITE 400
   WESTCHESTER, OH 45069

2. STEADFAST BRIDGES (CONTECH ENGINEERED SOLUTIONS)
   9025 CENTRE POINT DRIVE, SUITE 400
   WESTCHESTER, OH 45069

FOUNDATION BEARING RESISTANCE:
ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LOAD PRESSURE OF 4.1 KIPS PER SQUARE FOOT. THE ALLOWABLE SERVICE BEARING CAPACITY IS 20 KIPS PER SQUARE FOOT.

SOILS ENCOUNTERED AT THE BEARING ELEVATION DURING CONSTRUCTION MUST MEET OR EXCEED THE REQUIRED BEARING CAPACITY. IF THEY DON'T, OVEREXCAVATION IS TO BE PERFORMED UNTIL THIS REQUIREMENT IS MET.

THE CONTRACTOR IS TO SET FOUNDATIONS AT ELEVATIONS SHOWN UNLESS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL VERIFY WITH A GEOTECHNICAL ENGINEER THAT EACH FOOTING PLACED IS BEARING ON DESIGN MATERIAL. IF THE GEOTECHNICAL ENGINEER DETERMINES THAT DESIGN MATERIAL IS REACHED PRIOR TO THE ELEVATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION SUPPORTING THE REVISED FOUNDATION ELEVATION AND COMPETENCY OF MATERIAL.

511 CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN
THE PAYMENT FOR THE COST OF ALL MATERIALS AND LABOR ASSOCIATED WITH THE DETAILING, FABRICATION AND ERECTION OF THE NON-EPOXY COATED REINFORCING STEEL IS INCLUDED IN ITEM 511 CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN.

ITEM SPECIAL – MANUFACTURED STONE
MANUFACTURED SYNTHETIC STONE VENEER SHALL BE "GREAT LAKES LIMESTONE" BY DUTCH QUALITY STONE INC., OR AN APPROVED ALTERNATIVE. THE STONE SHALL BE PLACED IN A RANDOM PATTERN SIMILAR TO THAT ON THE AVERY/MUIRFIELD BRIDGE AT US 33/SR 161 IN DUBLIN.

ITEM SPECIAL – POLYURETHANE CAULKING FOR STONE VENEER
CAULK VERTICAL JOINTS WITH POLYURETHANE CAULKING MATERIAL MANUFACTURED FOR OUTDOOR MASONRY. COLOR TO MATCH MORTARED JOINTS METHODS, PROCEDURES, AND MATERIALS SHALL ADHERE TO MANUFACTURERS SPECIFICATIONS.

SLOPE PROTECTION
CONTRACTOR SHALL USE ROCK EXCAVATED FOR FOOTER INSTALLATION AS SLOPE PROTECTION.

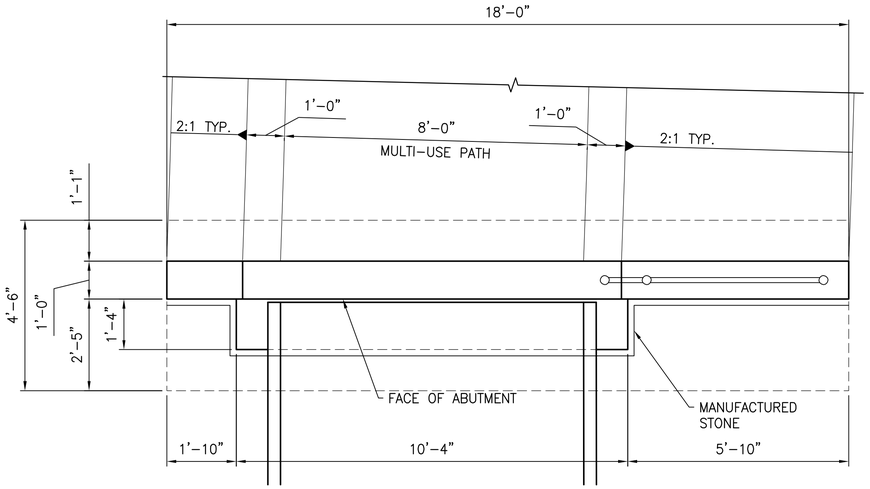
Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	05/12
CHECKED	REVISED		
JWE			

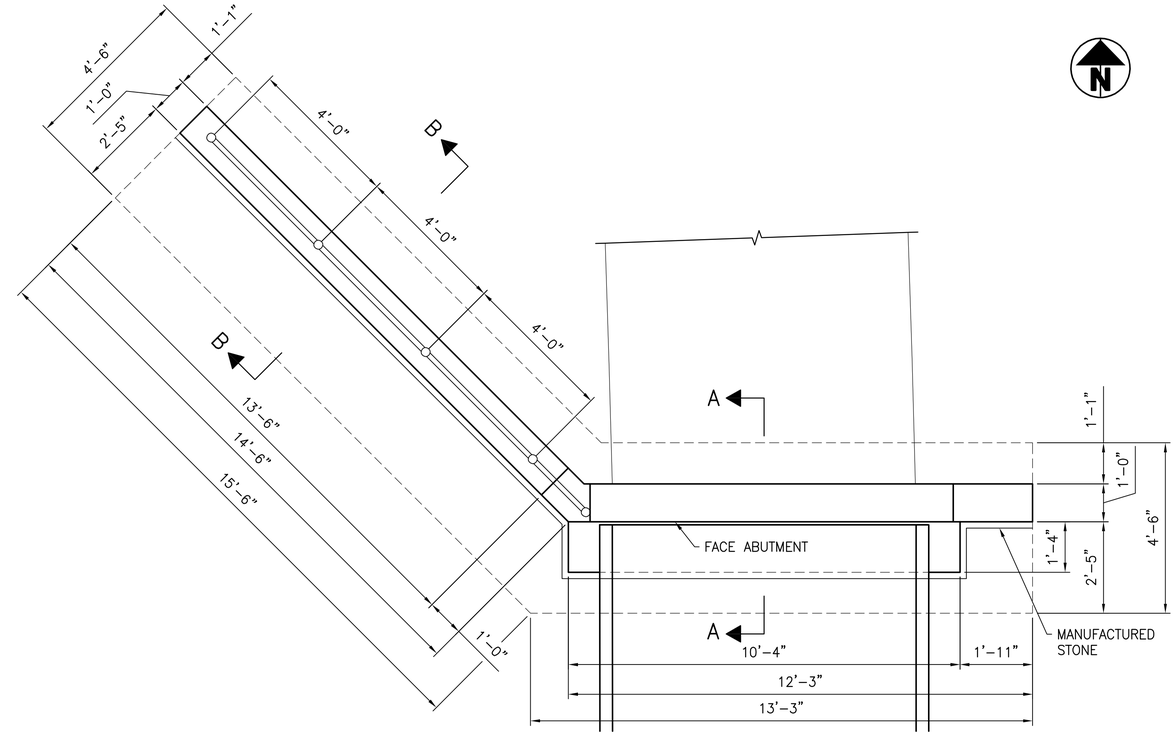
ESTIMATED QUANTITIES & GENERAL NOTES

DUBLIN ROAD SOUTH MULTI-USE PATH

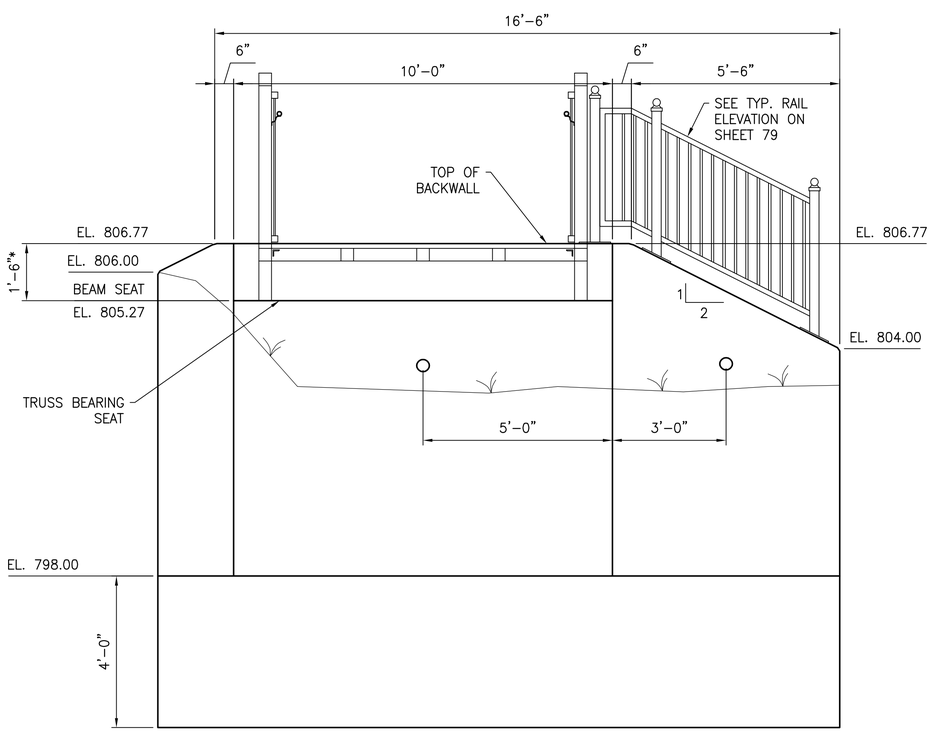
tshkolnik u:\173608736\design\plan_set\rings to waterford\Bridges\173608736_EQ04.dwg SAVED: Monday, December 15, 2014 1:59 PM PLOTTED: Friday, May 29, 2015 4:47 PM



REAR ABUTMENT PLAN

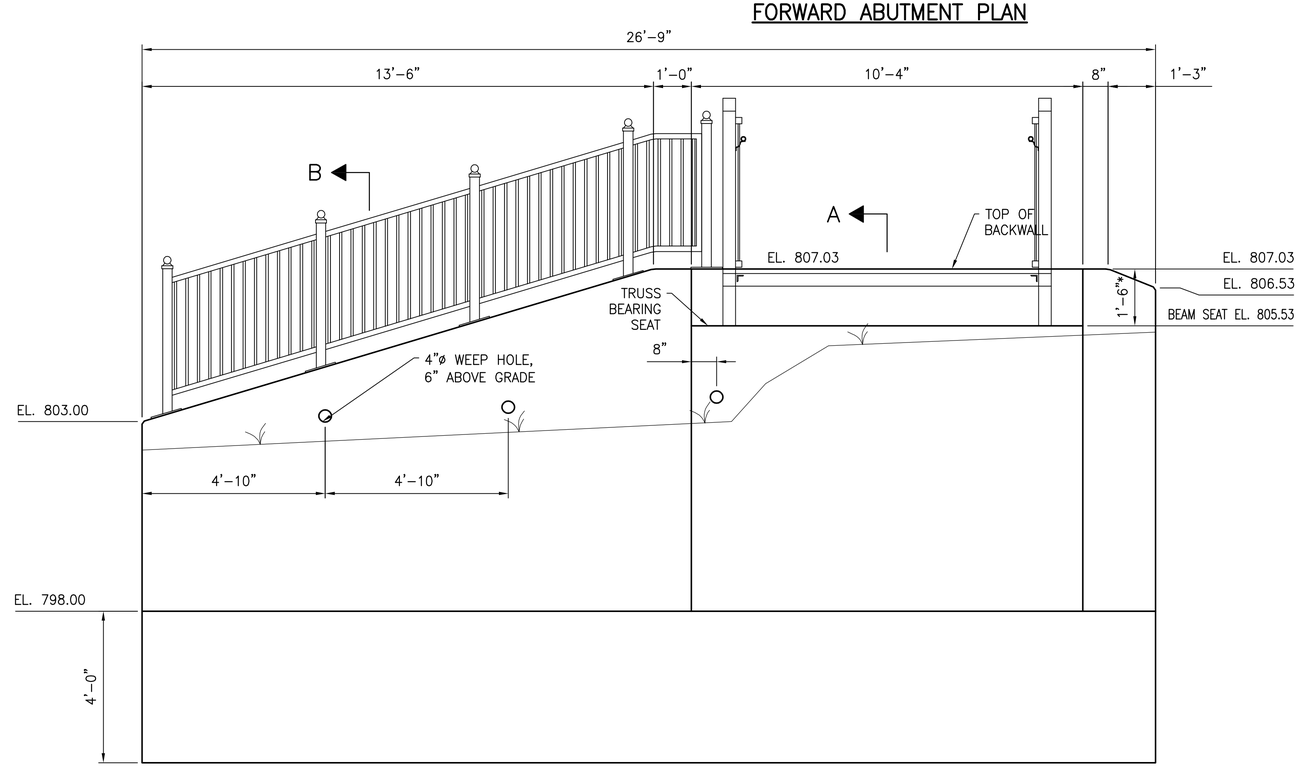


FORWARD ABUTMENT PLAN



REAR ABUTMENT ELEVATION

NOTE:
*VERIFY W/MFR SHOP DRAWINGS



B A

FORWARD ABUTMENT ELEVATION

NOTE:
*VERIFY W/MFR SHOP DRAWINGS

Stantec

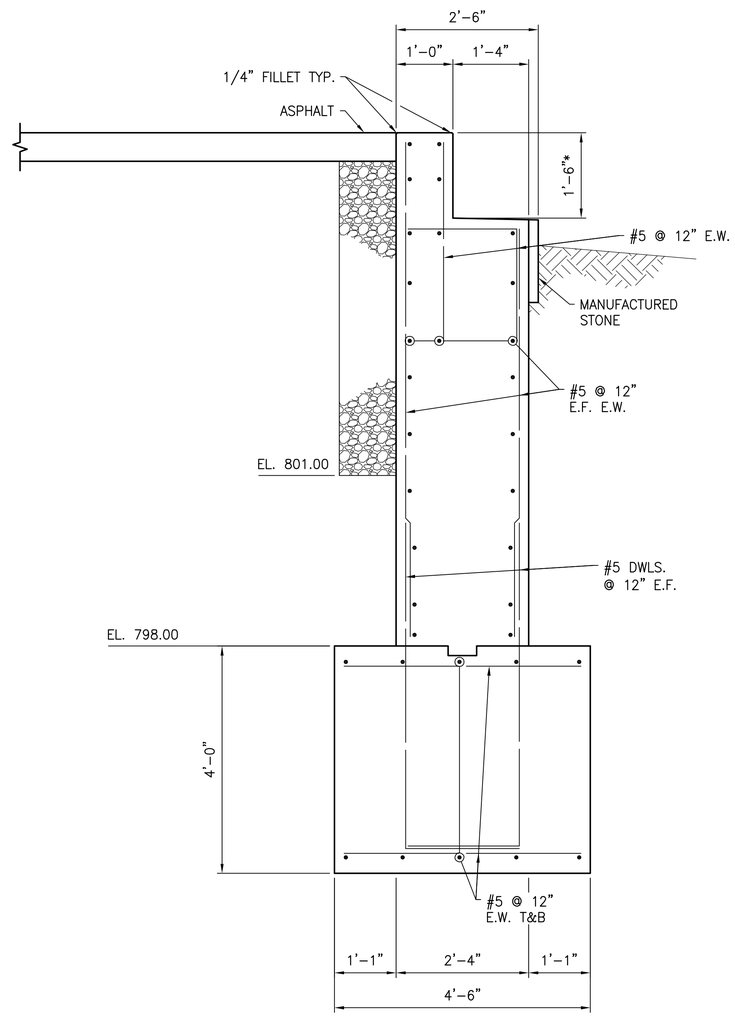
DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	05/12
CHECKED	REVISED		
JWE			

ABUTMENT DETAILS

DUBLIN ROAD SOUTH
MULTI-USE PATH

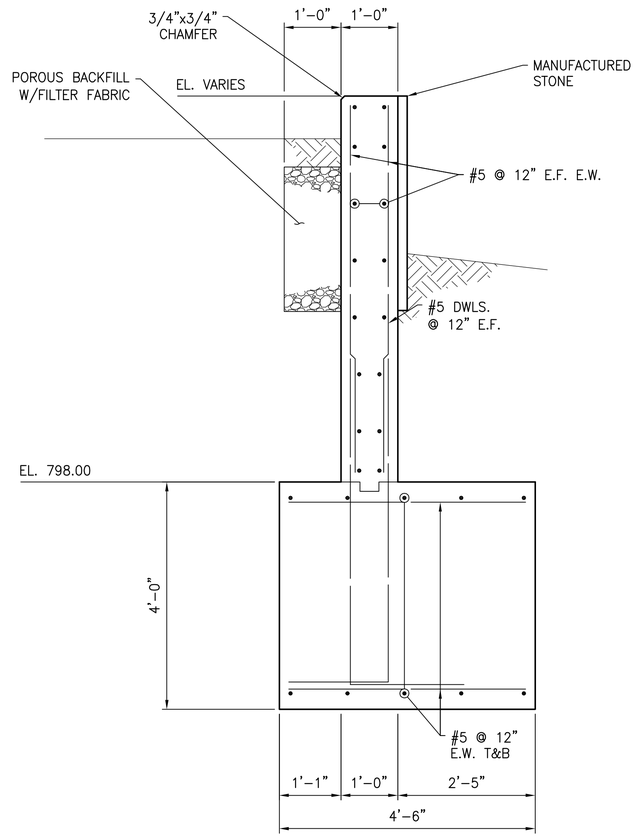
3 / 5

77
84

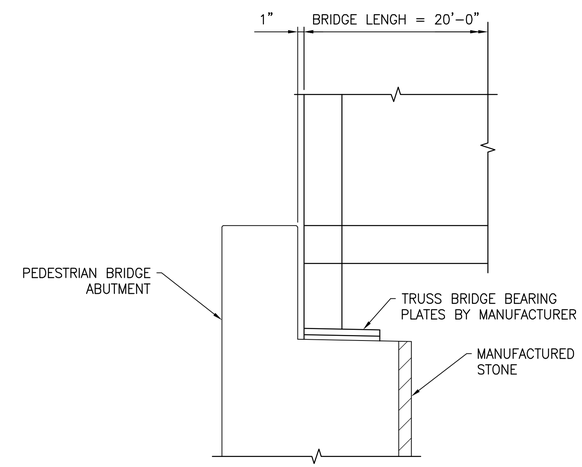


SECTION A–A

NOTE:
* VERIFY W/MFR SHOP DRAWINGS



SECTION B–B



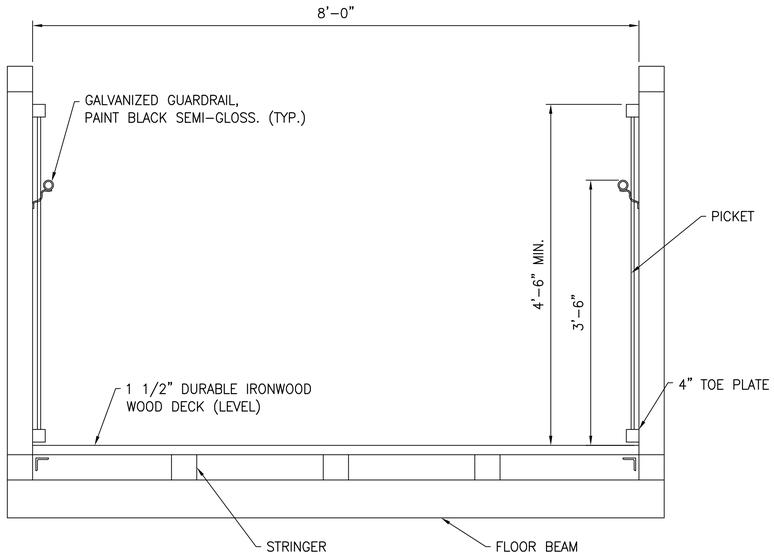
TRUSS BRIDGE BEARING DETAIL

Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	05/12
CHECKED	REVISED		
JWE			

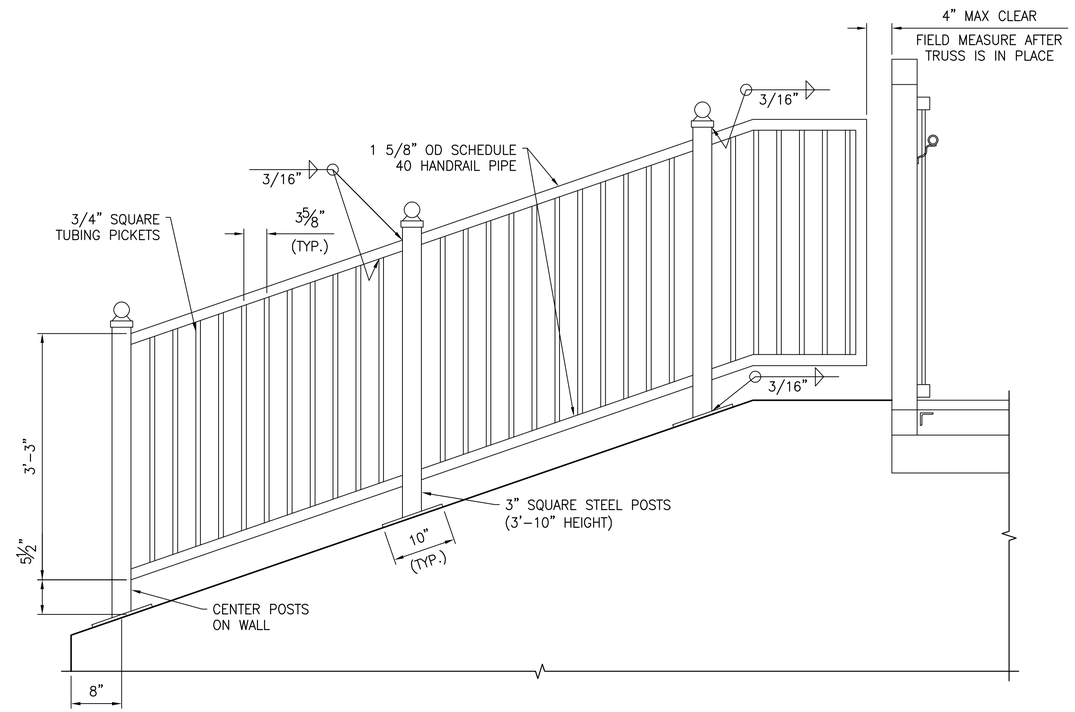
ABUTMENT SECTIONS

DUBLIN ROAD SOUTH MULTI-USE PATH



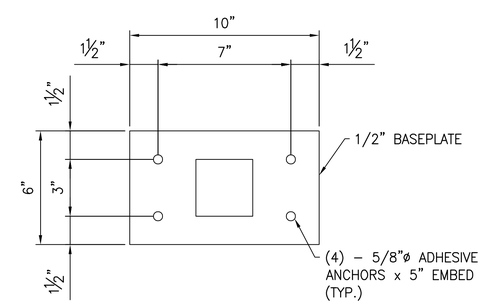
TYPICAL SECTION – PRE-ENGINEERED BRIDGE

TYPICAL B-1, B-2, B-3



TYPICAL RAILING ELEVATION

ALL MATERIAL FINISH USING 1 COAT PRIMER AND 2 SHOP COATS OF SHERWIN WILLIAMS SEMI-GLOSS BLACK.



BASEPLATE DETAIL

ALL MATERIAL FINISH USING 1 COAT PRIMER AND 2 SHOP COATS OF SHERWIN WILLIAMS SEMI-GLOSS BLACK.

Stantec

DESIGNED	DRAWN	REVIEWED	DATE
BSM	TWB	GT	05/12
CHECKED	REVISED		
JWE			

TRANSVERSE SECTION

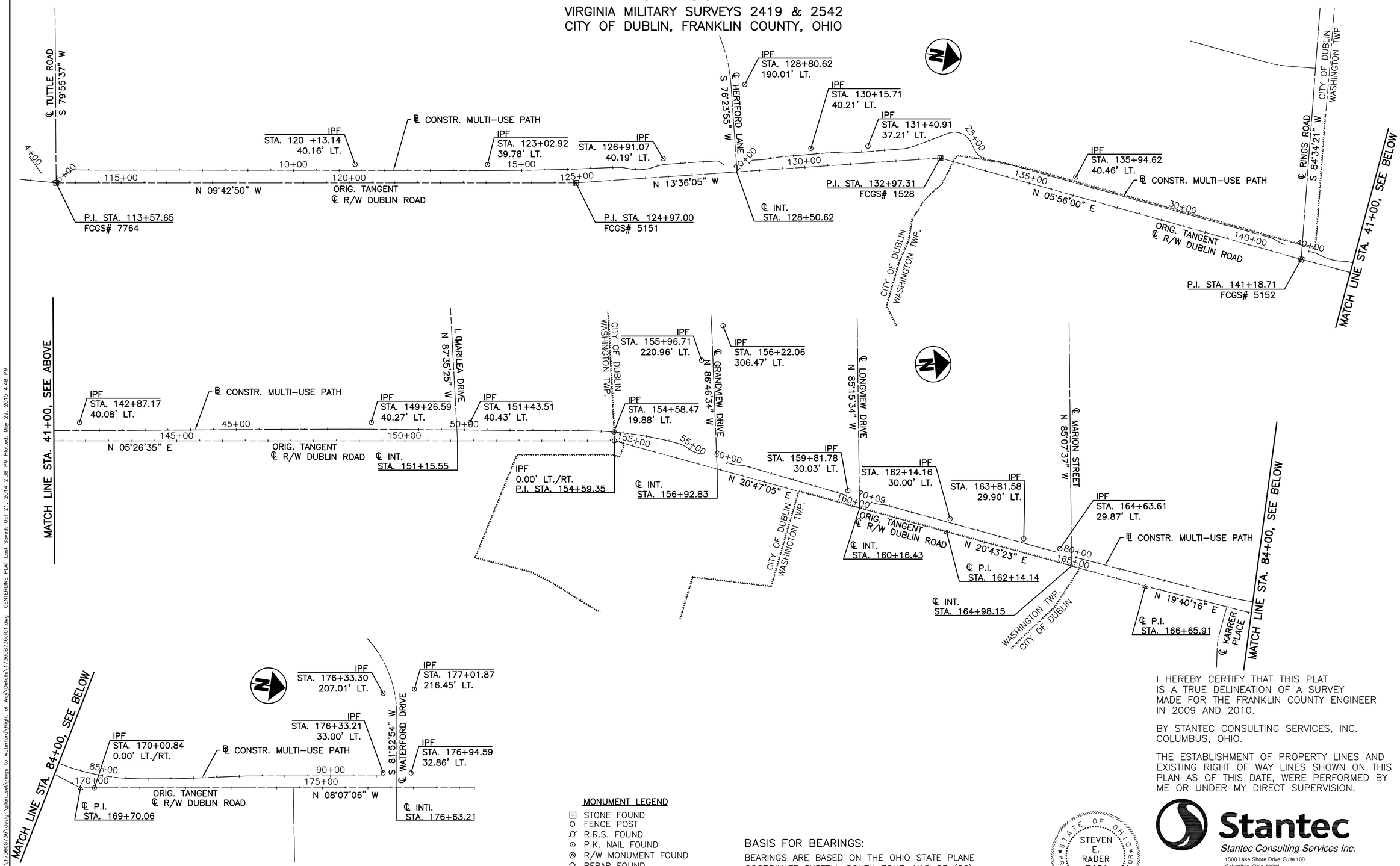
DUBLIN ROAD SOUTH
MULTI-USE PATH

5 / 5

79
84

DUBLIN ROAD SOUTH
MULTI-USE PATH

VIRGINIA MILITARY SURVEYS 2419 & 2542
CITY OF DUBLIN, FRANKLIN COUNTY, OHIO



MONUMENT LEGEND

- STONE FOUND
- FENCE POST
- R.R.S. FOUND
- P.K. NAIL FOUND
- R/W MONUMENT FOUND
- REBAR FOUND
- IRON PIN FOUND
- I.P.F. WITH I.D. CAP
- 3/4" IRON PIN SET
- MONUMENT BOX

BASIS FOR BEARINGS:

BEARINGS ARE BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 (86), AS ESTABLISHED FROM A GPS SURVEY IN 2009, OCCUPYING FRANKLIN COUNTY GEODETIC CONTROL MONUMENTS "FCGS 8820", "FCGS 9980 RESET", AND "FRANK 26".

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE FRANKLIN COUNTY ENGINEER IN 2009 AND 2010.

BY STANTEC CONSULTING SERVICES, INC. COLUMBUS, OHIO.

THE ESTABLISHMENT OF PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE, WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

STATE OF OHIO
STEVEN E. RADER
7191
REGISTERED PROFESSIONAL SURVEYOR

SURVEYOR'S SEAL

Stantec
Stantec Consulting Services Inc.
1500 Lake Shore Drive, Suite 100
Columbus, Ohio 43204
(614) 486-4383

REGISTERED SURVEYOR No. 7191 — DATE 12/20/2012

SCALE IN FEET: 0 100 200

CALCULATED TB
CHECKED SER

CENTERLINE PLAT

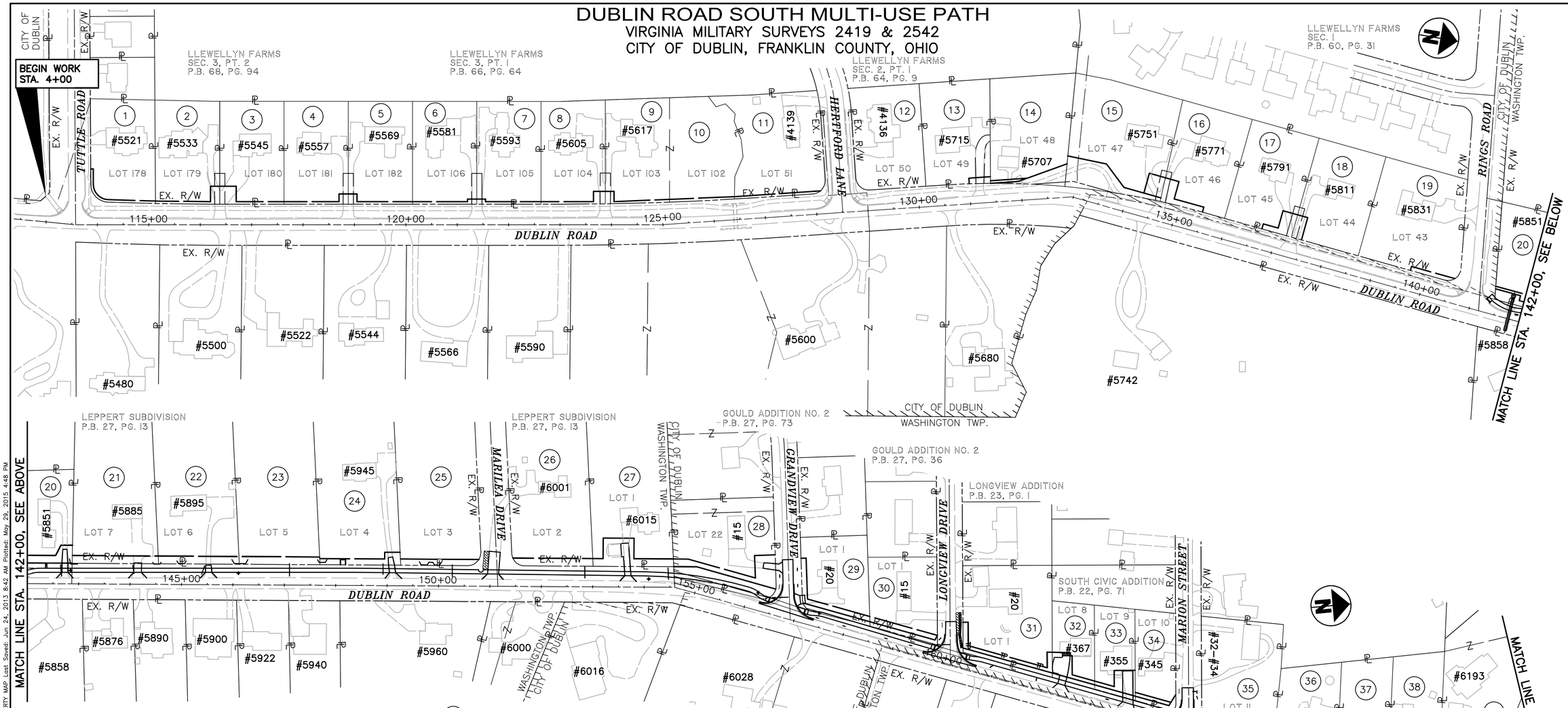
DUBLIN ROAD SOUTH
MULTI-USE PATH

MCDANIEL, AARON u:\173608736\design\plan_set\rings to waterford\Right of Way\Details\173608736c101.dwg CENTERLINE PLAT Last Saved: Oct 21, 2014 2:38 PM Plotted: May 29, 2015 4:48 PM

DUBLIN ROAD SOUTH MULTI-USE PATH

VIRGINIA MILITARY SURVEYS 2419 & 2542

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO



1. MINOO S. AMINIAN & ARTHUR NEAL OWENS, TRUSTEES
2. KAREN M. BROCKWAY, TRUSTEE
3. HAROLD E. JENKINS & BARBARA BIDDLE JENKINS
4. JUDY M. & GEORGE ARDOLINO
5. CHRIS & LAURIE L. FANNIN
6. BOGI V. GUDBRANDSSON & JENNIFER S. RIDENOUR
7. LINDA F. FORSYTHE
8. CAROLYN S. ALLEN–ENDERLE
9. WILLIAM S. NEWCOMB, JR. & NANNETTE L. NEWCOMB
10. WILLIAM S. NEWCOMB, JR. & NANNETTE L. NEWCOMB
11. FREDERICK M. & MELISSA J. SCHROEDER
12. LAWRENCE W. & LINDA L. LEHNER
13. LARRY E. & LANITA L. AYERS
14. JOHN R. & JOAN WERNZ
15. JAMES D. & MOLLY B. NESTER
16. CHARLES & ANN MOSES
17. RICHARD G. & KAREN L. COLWELL
18. TIM R. & JANE E. SAUNDERS
19. LEESA M. MARTIN & JAMES G. KINCAID
20. ADAM P. JOHNSON
21. KEVIN M. & KAREN L. KLOSTERMAN
22. CHRISTOPHER & BETTY HEAD
23. THOMAS A. McDOWELL & ALLEN E. McDOWELL, TRUSTEES
24. JACK M. & SUE E. McKITRICK
25. THOMAS A. McDOWELL & ALLEN E. McDOWELL, TRUSTEES
26. DONALD P. & CHERYL L. BURNS
27. KENT L. & LINDA D. STEPHENS
28. PAUL E. NULL, JR.
29. ISAAC D. & KAY W. PENSON
30. ROSLYN JANE TURNER & LAWRENCE K. WATKINS
31. CYNTHIA S. TAWNEY
32. ELIZABETH MILLER
33. DARRELL L. & VICTORIA L. CRAMBLIT
34. JAMES A. & CATHERINE T. HARDEN
35. JC LAND COMPANY, LTD.
36. MOHAMMED GHIATH AMMAR & ESTER LEA AMMAR
37. FREDERICK M. COGGIN & JUDITH W. HARVEY
38. BRUCE C. & SHARON C. MILLER
39. JANE E. FOX
40. MICHAEL F. & LORI L. HARRIS
41. CITY OF DUBLIN

REV.	DATE	DESCRIPTION

DATE OF COMPLETION: xx–xx–xxxx

CALCULATED SER
CHECKED TB

SCALE IN FEET 0 100 200

PROPERTY MAP

DUBLIN ROAD SOUTH MULTI-USE PATH

MCDANIEL, ARRON u:\17360873\design\plan_set\rings to waterford\Right of Way\Details\17360873pr01.dwg PROPERTY MAP Last Saved: Jun 24, 2013 8:42 AM Plotted: May 29, 2015 4:48 PM

= FRANKLIN COUNTY RECORDER'S OFFICE INSTRUMENT NUMBER

NET RESIDUE = RECORD AREA – TOTAL PRO–NET TAKE

* DENOTES RIGHT–OF–WAY ENCROACHMENT

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF CITY OF DUBLIN, OHIO UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITORS PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC–TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED INSTR. NO.
20–P	ADAM P. JOHNSON		#20120403	0045766	270–000304	0.957		0.045	0	0.045	NO			CITY	UTILITY, GRADING, AND MULTI–USE PATH	
20–T								0.052	0	0.052	NO			CITY	GRADING, RECONSTRUCT DRIVE	
21–T	KEVIN M. & KAREN L. KLOSTERMAN		#19970909	0089921	270–000403			0.058	0	0.058	NO			CITY	LOT 7 OF LEPPERT SUBDIVISION	
															GRADING, RECONSTRUCT DRIVE	
22–T	CHRISTOPHER & BETTY HEAD		#20080207	0019108	270–000402			0.054	0	0.054	NO			CITY	LOT 6 OF LEPPERT SUBDIVISION	
															GRADING, RECONSTRUCT DRIVE	
23–T	THOMAS A. McDOWELL &		2384	01	270–000401			0.054	0	0.054	NO			CITY	LOT 5 OF LEPPERT SUBDIVISION	
	ALLEN E. McDOWELL TRUSTEES		2711	670											GRADING	
24–T	JACK M. & SUE E. McKITRICK		O.R. 4705	G14	270–000400			0.052	0	0.052	NO			CITY	LOT 4 OF LEPPERT SUBDIVISION	
															GRADING, RECONSTRUCT DRIVE	
25–T	THOMAS A. McDOWELL &		2243	674	270–000399			0.040	0	0.040	NO			CITY	LOT 3 OF LEPPERT SUBDIVISION	
	ALLEN E. McDOWELL TRUSTEES		2711	670											GRADING	
26–T	DONALD P. & CHERYL L. BURNS		#20120727	0108158	270–000398			0.051	0	0.051	NO			CITY	LOT 2 OF LEPPERT SUBDIVISION	
															GRADING, RECONSTRUCT DRIVE	
27–T	KENT L. & LINDA D. STEPHENS		O.R. 1370	F06	270–000397			0.109	0	0.109	NO			CITY	LOT 1 OF LEPPERT SUBDIVISION	
															GRADING, RECONSTRUCT DRIVE	

ALL AREAS ARE IN ACRES FROM THE COUNTY AUDITOR'S RECORDS, UNLESS OTHERWISE SHOWN.

NOTE: (C) = CALCULATED AREA

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTHS DURATION.

PARCEL LEGEND

P = PERMANENT EASEMENT
T = TEMPORARY EASEMENT
S = SEWER EASEMENT
SL = SLOPE EASEMENT
CH = DRAINAGE EASEMENT

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY		DATE:
OWNERSHIP VERIFIED BY	TJS	DATE: 06–14–13
DATE COMPLETED		–

C.I.P. NUMBER 08-009.3

RW DESIGNER TB
RW REVIEWER SER

SUMMARY OF ADDITIONAL RIGHT-OF-WAY

DUBLIN ROAD SOUTH MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Right of Way\Summaries\173608736ro03.dwg SUMMARY OF ADDITIONAL RIGHT-OF-WAY Last Saved: Jun 24, 2013 8:52 AM Plotted: May 29, 2015 4:48 PM

= FRANKLIN COUNTY RECORDER'S OFFICE INSTRUMENT NUMBER

NET RESIDUE = RECORD AREA – TOTAL PRO–NET TAKE

* DENOTES RIGHT–OF–WAY ENCROACHMENT

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF CITY OF DUBLIN, OHIO UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITORS PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC–TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED INSTR. NO.
28–P	PAUL E. NULL, JR.		#20100713	0087782	273–000254			0.086	0	0.086	NO			CITY	LOT 22, PT–21 OF GOULD ADDDITION NO. 2	
															UTILITY, GRADING, AND MULTI–USE PATH	
28–T								0.097	0	0.097	NO				RECONSTRUCT DRIVE	
29–P	ISAAC D. & KAY W. PENSON		O.R. 25701	E08	273–000233			0.024	0	0.024	NO			CITY	LOT 1 OF GOULD ADDDITION NO. 2	
															UTILITY, GRADING, AND MULTI–USE PATH	
29–T								0.049	0	0.049	NO			CITY	GRADING, RECONSTRUCT DRIVE	
30–P	ROSLYN JANE TURNER &		#20051027	0226354	273–000181			0.026	0	0.026	NO			CITY	LOT 1 OF GOULD ADDITION	
	LAURENCE K. WATKINS														UTILITY, GRADING, AND MULTI–USE PATH	
30–T								0.031	0	0.031	NO			CITY	GRADING	
31–P	CYNTHIA TAWNEY		O.R. 10581	J20	273–000193			0.033	0	0.033	NO			CITY	LOT 1 OF LONGVIEW ADDITION	
															UTILITY, GRADING, AND MULTI–USE PATH	
31–T								0.046	0	0.046	NO			CITY	GRADING	
32–P	ELIZABETH S. MILLER		#20020613	0146642	273–000157			0.016	0	0.016	NO			CITY	LOT 8 OF SOUTH CIVIC ADDITION	
															UTILITY, GRADING, AND MULTI–USE PATH	
32–T								0.047	0	0.047	NO			CITY	RECONSTRUCT DRIVE	
33–P	DARRELL L. & VICTORIA L. CRAMBLIT		O.R. 23780	B15	273–000158			0.015	0	0.015	NO			CITY	LOT 9 OF SOUTH CIVIC ADDITION	
															UTILITY, GRADING, AND MULTI–USE PATH	
33–T								0.048	0	0.048	NO			CITY	RECONSTRUCT DRIVE	
34–P	JAMES A. & CATHERINE T. HARDEN		#20080219	0024641	273–000159			0.018	0	0.018	NO			CITY	LOT 10 OF SOUTH CIVIC ADDITION	
															UTILITY, GRADING, AND MULTI–USE PATH	
34–T								0.011	0	0.011	NO			CITY	GRADING	

ALL AREAS ARE IN ACRES FROM THE COUNTY AUDITOR'S RECORDS, UNLESS OTHERWISE SHOWN.

NOTE: (C) = CALCULATED AREA

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTHS DURATION.

PARCEL LEGEND

P = PERMANENT EASEMENT
T = TEMPORARY EASEMENT
S = SEWER EASEMENT
SL = SLOPE EASEMENT
CH = DRAINAGE EASEMENT

REV. BY	DATE	DESCRIPTION

FIELD REVIEW BY DATE:
OWNERSHIP VERIFIED BY TJS DATE: 06–14–13
DATE COMPLETED –

C.I.P. NUMBER 08-009.3

RW DESIGNER TB
RW REVIEWER SER

SUMMARY OF ADDITIONAL RIGHT-OF-WAY

DUBLIN ROAD SOUTH MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Right of Way\Summaries\173608736rs04.dwg SUMMARY OF ADDITIONAL RIGHT–OF–WAY Last Saved: Jun 21, 2013 8:32 AM Plotted: May 29, 2015 4:48 PM

= FRANKLIN COUNTY RECORDER'S OFFICE INSTRUMENT NUMBER

NET RESIDUE = RECORD AREA – TOTAL PRO–NET TAKE

* DENOTES RIGHT–OF–WAY ENCROACHMENT

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF CITY OF DUBLIN, OHIO UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITORS PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC–TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED INSTR. NO.
35–P	JC LAND COMPANY, LTD.		#19990430	0108377	273–000160			0.054	0	0.054	NO			CITY	LOT 11 OF SOUTH CIVIC ADDITION	
															UTILITY, GRADING, AND MULTI–USE PATH	
36–P	MOHAMMED GHIATH AMMAR & ESTER LEA AMMAR		#19991220	0311432	273–001408	0.521		0.029	0	0.029	NO			CITY	VMS 2419	
															UTILITY, GRADING, AND MULTI–USE PATH	
36–T								0.029	0	0.029	NO			CITY	RECONSTRUCT DRIVE	
37–P	FREDERICK M. COGGIN &		#19990430	0109030	273–001409	0.524		0.023	0	0.023	NO			CITY	VMS 2419	
	JUDITH W. HARVEY														UTILITY, GRADING, AND MULTI–USE PATH	
37–T								0.023	0	0.023	NO			CITY	GRADING, RECONSTRUCT DRIVE	
38–P	BRUCE C. & SHARON C. MILLER		O.R. 11529	J07	273–000147	0.515		0.027	0	0.027	NO			CITY	VMS 2419	
															UTILITY, GRADING, AND MULTI–USE PATH	
38–T								0.022	0	0.022	NO			CITY	RECONSTRUCT DRIVE	
39–P	JANE E. FOX		#20020715	0172396	273–001935	0.807		0.020	0	0.020	NO			CITY	PARCEL I, PART OF LOT 79 OF WATERFORD	
															UTILITY, GRADING, AND MULTI–USE PATH	
39–T1								0.006	0	0.006	NO			CITY	RECONSTRUCT DRIVE	
39–T2								0.009	0	0.009	NO			CITY	GRADING	
40–T	THOMAS T. & JANE E. FOX		#20051129	0250968	273–011777	1.318		0.020	0	0.020	NO			CITY	RECONSTRUCT DRIVE	
41	CITY OF DUBLIN		#20060413	0069277	273–000143	0.950									NO R/W REQUIRED	
			#20100302	0024866	273–000877	0.171										
	TOTAL					1.121										

ALL AREAS ARE IN ACRES FROM THE COUNTY AUDITOR'S RECORDS, UNLESS OTHERWISE SHOWN.

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CH = DRAINAGE EASEMENT

REV. BY	DATE	DESCRIPTION
FIELD REVIEW BY		DATE:
OWNERSHIP VERIFIED BY	TJS	DATE: 06–14–13
DATE COMPLETED		–

C.I.P. NUMBER 08-009.3

RW DESIGNER TB
RW REVIEWER SER

SUMMARY OF ADDITIONAL RIGHT-OF-WAY

DUBLIN ROAD SOUTH MULTI-USE PATH

MCDANIEL, ARRON u:\173608736\design\plan_set\rings to waterford\Right of Way\Summaries\173608736rd05.dwg SUMMARY OF ADDITIONAL RIGHT–OF–WAY Last Saved: May 01, 2014 9:04 AM Plotted: May 29, 2015 4:48 PM