DUBLIN ROAD AND GLICK ROAD INTERSECTION IMPROVEMENTS

10-006-CIP

City of Dublin

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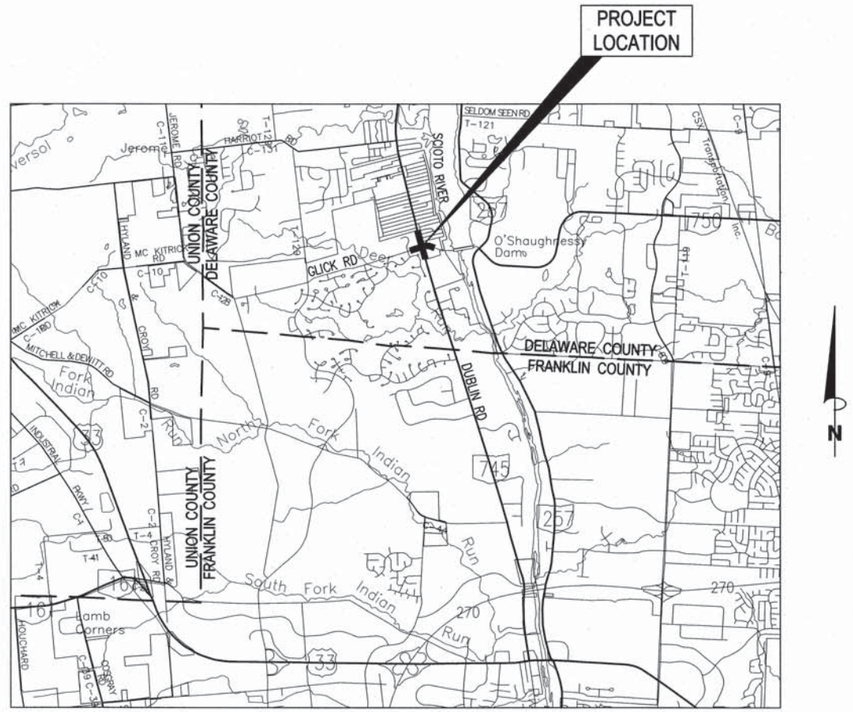
	DESIGN SPEED	POSTED SPEED
DUBLIN ROAD	35 MPH	35 MPH
GLICK ROAD (WEST LEG)	35 MPH	35 MPH
GLICK ROAD (EAST LEG)	25 MPH	25 MPH



LOCATION MAP

0 1/2 1 2

SCALE IN MILES

ENGINEERS SEAL:

STATE OF OHIO KEVIN JOSEPH CRAWFORD E-69232 REGISTERED PROFESSIONAL ENGINEER

REGISTERED ENGINEER — DATE 3/31/14

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

APPROVED:

CITY ENGINEER, CITY OF DUBLIN, OHIO — DATE 4.30.2014

VILLAGE ADMINISTRATOR, VILLAGE OF SHAWNEE HILLS — DATE 5.12.2014

Signature not required - Permit MR 509 # 06-0082-14
DISTRICT DEPUTY DIRECTOR — DATE 5-16-2014

Signature not required - Permit MR 509 # 06-0082-14
DIRECTOR, DEPARTMENT OF TRANSPORTATION — DATE 5-16-2014

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.

TBM R C Westerfield
ADMINISTRATOR, DIVISION OF WATER
CITY OF COLUMBUS — DATE 5-1-14

Greg J. Davis by Rudolphy
DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES
CITY OF COLUMBUS — DATE 5.2.2014

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STANDARD CONSTRUCTION DRAWINGS

CITY OF DUBLIN		ODOT				CITY OF COLUMBUS			
PD–01		BP–3.1	4–20–12	TC–41.20	10–18–13	1441	6–01–13	AA–S102	12–06–13
PD–02				TC–41.30	10–18–13	2160	6–01–13	AA–S106	7–09–12
PD–03		MH–1.1	1–18–13	TC–42.20	10–18–13			AA–S107	7–09–12
PD–04		MH–1.2	1–18–13	TC–52.10	10–18–13	L–6306	5–14–13	AA–S112	12–06–13
PD–08				TC–52.20	1–17–14	L–6309A	5–14–13	AA–S117	7–09–12
		DM–4.4	7–20–12	TC–71.10	1–17–14	L–6309B	5–14–13	AA–S119	7–09–12
RD–02				TC–81.21	1–17–14	L–6310	5–14–13	AA–S125A	12–06–13
RD–03		HL–20.11	1–17–14	TC–82.10	10–18–13	L–6311	5–14–13	AA–S125B	12–06–13
RD–05		HL–30.11	1–17–14	TC–83.10	1–17–14	L–6316A	5–14–13	AA–S128	12–06–13
RD–06		HL–60.11	1–17–14	TC–83.20	10–18–13	L–6316B	5–14–13	AA–S133A	12–06–13
RD–07				TC–85.10	10–18–13	L–8502	5–16–13	AA–S133B	12–06–13
		MT–97.10	7–19–13	TC–85.20	10–18–13			AA–S139	12–06–13
ST–03		MT–97.11	7–19–13			4163	5–1–14	AA–S150	7–09–12
ST–05		MT–101.60	7–19–13					AA–S151	7–09–12
		MT–101.90	7–19–13					AA–S169	12–06–13
		MT–105.10	7–19–13						

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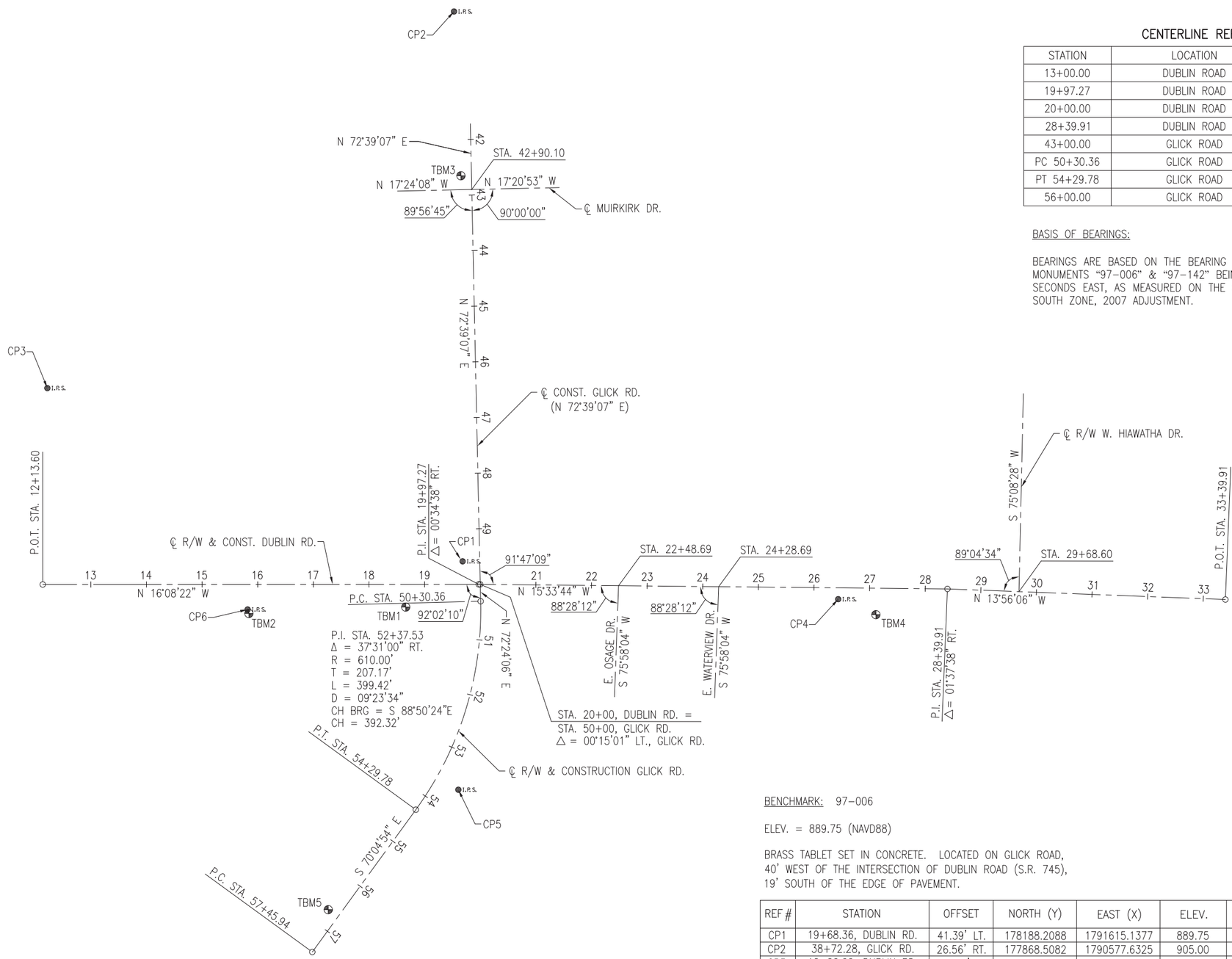

CENTERLINE REFERENCE POINTS

STATION	LOCATION	NORTHING	EASTING
13+00.00	DUBLIN ROAD	177557.699	1791840.687
19+97.27	DUBLIN ROAD	178227.487	1791646.864
20+00.00	DUBLIN ROAD	178230.119	1791646.131
28+39.91	DUBLIN ROAD	179039.236	1791420.797
43+00.00	GLICK ROAD	178021.396	1790977.974
PC 50+30.36	GLICK ROAD	178239.298	1791675.071
PT 54+29.78	GLICK ROAD	178231.355	1792067.314
56+00.00	GLICK ROAD	178173.365	1792227.350

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE BEARING BETWEEN DELAWARE COUNTY ENGINEER'S MONUMENTS "97-006" & "97-142" BEING NORTH 72 DEGREES 52 MINUTES 25 SECONDS EAST, AS MEASURED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, 2007 ADJUSTMENT.

BENCHMARK: 97-006

ELEV. = 889.75 (NAVD88)

BRASS TABLET SET IN CONCRETE. LOCATED ON GLICK ROAD, 40' WEST OF THE INTERSECTION OF DUBLIN ROAD (S.R. 745), 19' SOUTH OF THE EDGE OF PAVEMENT.

REF #	STATION	OFFSET	NORTH (Y)	EAST (X)	ELEV.	DESCRIPTION
CP1	19+68.36, DUBLIN RD.	41.39' LT.	178188.2088	1791615.1377	889.75	5/8" REBAR (SET) W/CAP STAMPED WESCG
CP2	38+72.28, GLICK RD.	26.56' RT.	177868.5082	1790577.6325	905.00	5/8" REBAR (SET) W/CAP STAMPED WESCG
CP3	12+22.00, DUBLIN RD.	352.97' LT.	178042.6477	1791130.5849	889.38	5/8" REBAR (SET) W/CAP STAMPED WESCG
CP4	26+43.73, DUBLIN RD.	20.35' RT.	178855.7104	1791493.0351	893.71	5/8" REBAR (SET) W/CAP STAMPED WESCG
CP5	53+60.74, GLICK RD.	44.86' LT.	178294.7861	1792011.6309	868.98	5/8" REBAR (SET) W/CAP STAMPED WESCG
CP6	15+81.85, DUBLIN RD.	45.00' RT.	177840.9517	1791805.5639	880.69	5/8" REBAR (SET) W/CAP STAMPED WESCG
TBM1	18+66.09, DUBLIN RD.	40.85' RT.	178112.8323	1791722.5664	882.71	CHISELED "X" ON LIGHT POLE BASE
TBM2	15+84.15, DUBLIN RD.	52.24' RT.	177845.1696	1791811.8815	881.96	CHISELED "X" ON LIGHT POLE BASE
TBM3	42+65.05, GLICK RD.	18.96' RT.	177992.8758	1790950.2697	894.15	EASTERLY MOST CORNER OF CURB INLET
TBM4	27+11.78, DUBLIN RD.	47.54' RT.	178928.5565	1791500.973	895.90	ARROW BOLT ON FIRE HYDRANT
TBM5	56+67.72, GLICK RD.	21.59' RT.	178129.9948	1792283.6587	864.17	CHISELED "X" ON SW CORNER OF CATCH BASIN

LEGEND:

CP = CONTROL POINT
TBM = TEMPORARY BENCHMARK
I.R.S. = 5/8" REBAR (SET) W/CAP STAMPED WESCG

HORIZONTAL SCALE IN FEET 0 50 100 200

CALCULATED NLC
CHECKED KJG

SURVEY CONTROL PLAN

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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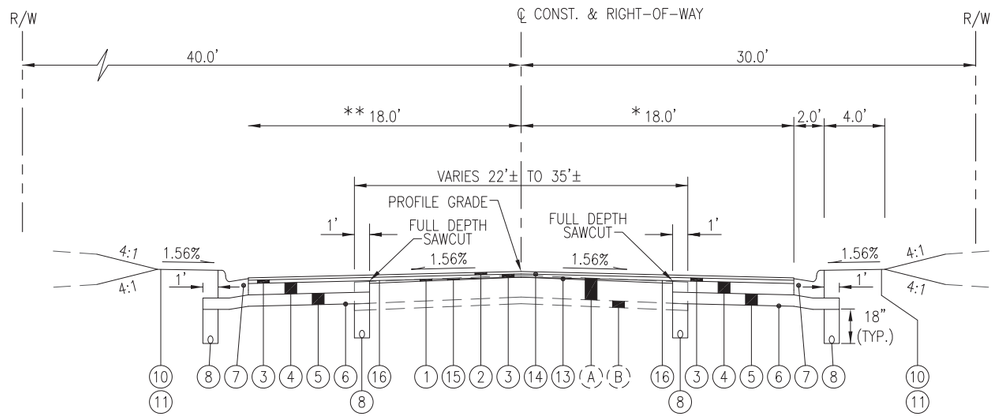
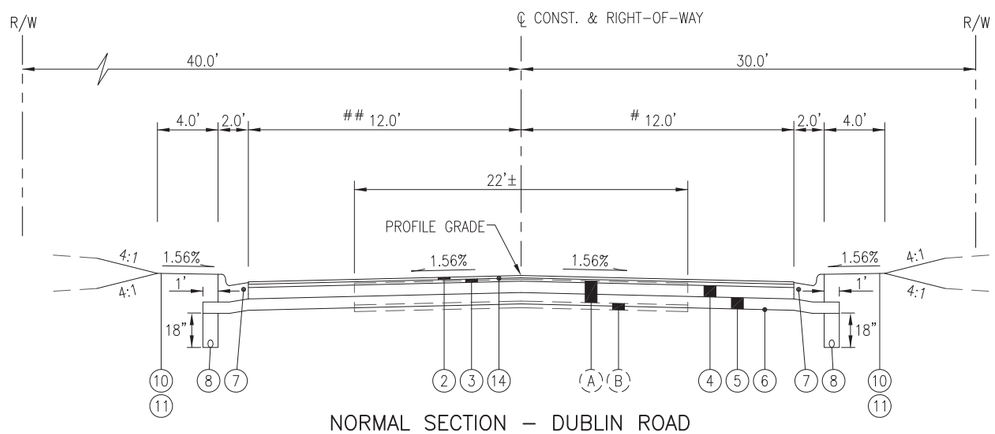


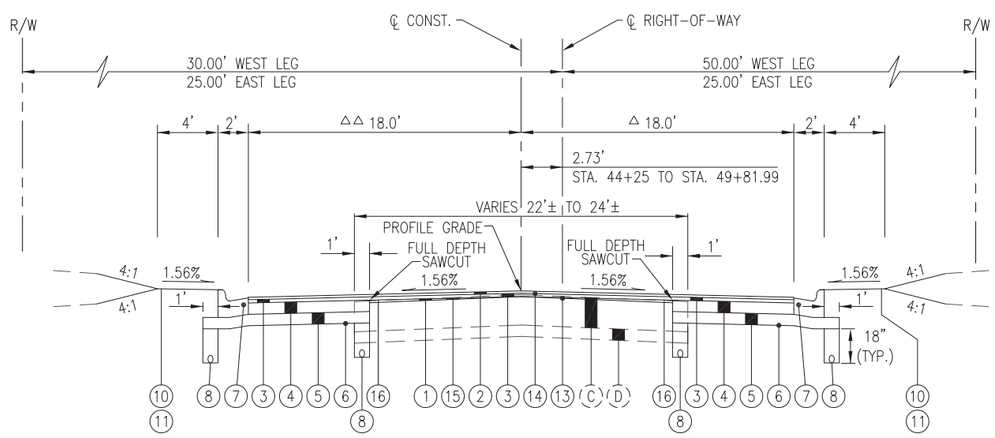
NORMAL SECTION – DUBLIN ROAD

STA. 14+00 TO STA. 25+25



NORMAL SECTION – DUBLIN ROAD (FULL DEPTH REPLACEMENT)

STA. 25+25 TO STA. 28+25



NORMAL SECTION – GLICK ROAD

STA. 44+25 TO STA. 49+81.99
STA. 50+18.01 TO STA. 55+00

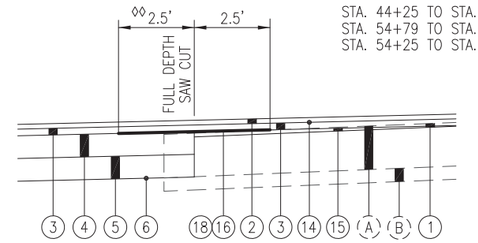
* STA. 14+00 TO STA. 14+50: VARIES 10.3' TO 25.05'
STA. 14+50 TO STA. 15+90: VARIES 25.05' TO 30.0'
STA. 15+90 TO STA. 16+06.8: 30.0'
STA. 23+10 TO STA. 25+25: VARIES 18.0' TO 13.13'

** STA. 14+00 TO STA. 16+90: VARIES 11.7' TO 18.0'
STA. 24+10 TO STA. 25+25: VARIES 18.0' TO 13.82'

◊ STA. 22+61 TO STA. 22+68 RT: VARIES 6.0' TO 3.0'
STA. 22+68 TO STA. 23+10 RT: 3.0'
STA. 23+10 TO STA. 24+42.6 RT: VARIES 3.0' TO 6.0'

◊◊ STA. 14+00 TO STA. 14+50 LT: VARIES 1.0' TO 2.5'
STA. 25+12 TO STA. 25+25 LT: VARIES 2.5' TO 2.0'
STA. 14+00 TO STA. 14+08 RT: VARIES 1.0' TO 2.5'

STA. 44+25 TO STA. 44+64 LT/RT: VARIES 1.0' TO 2.5'
STA. 54+79 TO STA. 55+00 LT: VARIES 2.5' TO 1.0'
STA. 54+25 TO STA. 55+00 RT: VARIES 2.5' TO 1.0'



PAVEMENT REINFORCEMENT GRID DETAIL

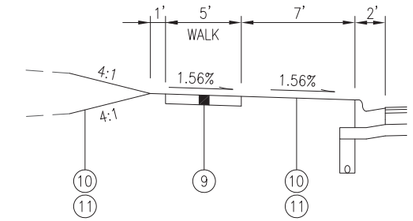
DUBLIN ROAD:
STA. 14+00 TO STA. 25+25
GLICK ROAD:
STA. 44+25 TO STA. 49+81.99
STA. 50+18.01 TO STA. 55+00

△ STA. 44+25 TO STA. 45+90: VARIES 11.8' TO 18.0'
STA. 53+15 TO STA. 55+00: VARIES 18.0' TO 10.0'

△△ STA. 44+25 TO STA. 46+90: VARIES 10.1' TO 18.0'
STA. 54+10 TO STA. 55+00: VARIES 18.0' TO 11.9'

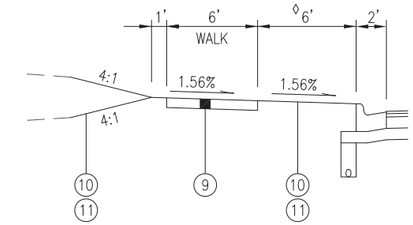
EXISTING PAVEMENT

(A) EX. 11 1/2"± ASPHALT CONCRETE
(B) EX. 3 1/2"± AGGREGATE BASE
(C) EX. 6"± TO 16"± ASPHALT CONCRETE
(D) EX. 6"± AGGREGATE BASE



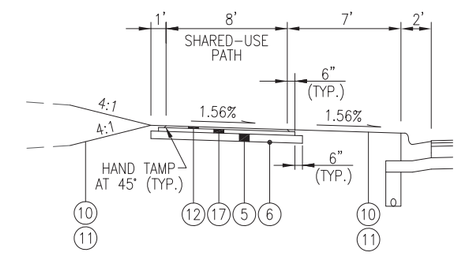
5' CONCRETE SIDEWALK

GLICK ROAD:
STA. 43+10 TO STA. 49+44 (LT.)
STA. 50+23.6 TO STA. 50+61.3 (RT.)



6' CONCRETE SIDEWALK

DUBLIN ROAD:
STA. 20+00 TO STA. 28+25 (RT.)
GLICK ROAD:
STA. 50+00 TO STA. 52+01.5 (LT.)



8' SHARED-USE PATH

DUBLIN ROAD:
STA. 15+50 TO STA. 28+32 (LT.)
GLICK ROAD:
STA. 44+75 TO STA. 46+02 (RT.)

LEGEND

1. ITEM 254 – 1" PAVEMENT PLANING, ASPHALT CONCRETE
2. ITEM 448 – 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (MEDIUM TRAFFIC), PG64-22
3. ITEM 448 – 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (MEDIUM TRAFFIC), PG64-22
4. ITEM 301 – 6" ASPHALT CONCRETE BASE, PG64-22
5. ITEM 304 – 6" AGGREGATE BASE
6. ITEM 204 – SUBGRADE COMPACTION
7. ITEM 609 – COMBINATION CONCRETE CURB AND GUTTER (GUTTER THICKNESS = 9")
8. ITEM 605 – 4" PIPE UNDERDRAIN (INCLUDING #57 AGGREGATE), 720.12
9. ITEM 608 – 4" CONCRETE WALK (INCLUDING #57 AGGREGATE)
10. ITEM 659 – SEEDING AND MULCHING, AS PER PLAN
11. ITEM 653 – 3" TOPSOIL FURNISHED AND PLACED, AS PER PLAN
12. ITEM 448 – 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22, MEDIUM TRAFFIC
13. ITEM 407 – NTSS-1HM TRACKLESS TACK COAT @ 0.10 GAL./S.Y.
14. ITEM 407 – NTSS-1HM TRACKLESS TACK COAT @ 0.05 GAL./S.Y.
15. ITEM 448 – VARIABLE DEPTH WEDGE ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (MEDIUM TRAFFIC), PG64-22
16. ITEM SPECIAL – PAVEMENT JOINT MESH REINFORCEMENT
17. ITEM 301 – 3" ASPHALT CONCRETE BASE, PG64-22
18. ITEM 407 – EMULSIFIED ASPHALT TACK COAT, SS-1 @ 0.10 GAL./S.Y.

CALCULATED LAM
CHECKED KJG

TYPICAL SECTIONS

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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GENERAL

CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, AND ANY SUPPLEMENTS THERETO (HEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS) SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED. ITEM NUMBERS LISTED REFER TO CITY OF COLUMBUS ITEM NUMBERS UNLESS OTHERWISE NOTED.

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

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.

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 CONTRACT 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.

THE CONTRACTOR SHALL NOTIFY THE CITY OF DUBLIN, DIVISION OF ENGINEERING, ODOT DISTRICT 6, DELAWARE COUNTY ENGINEER, AND VILLAGE OF SHAWNEE HILLS 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 THE 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 CAUTION 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, GRADES, 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.

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.

ALL NON-PAVEMENT AREAS DISTURBED WITHIN THE DESIGNATED EASEMENTS, RIGHTS-OF-WAY, AND LIMITS OF DISTURBANCE AS SHOWN, SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ITEM 659, SEEDING AND MULCHING, AS PER PLAN. ALL AREAS DISTURBED OUTSIDE THESE LIMITS SHALL BE SEEDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.

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

TRACKING OR SPILLING MUD, DIRT OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS OR SHARED-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.

ALL SIGNS, LANDSCAPING, STRUCTURES, OR OTHER APPURTENANCES DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE PAID FOR BY THE CONTRACTOR.

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 COLUMBUS. PRECAST CONCRETE PRODUCTS WITHOUT PROOF OF INSPECTION SHALL NOT BE APPROVED FOR INSTALLATION.

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

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.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT U.S. MAIL DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS. THIS RESPONSIBILITY IS LIMITED TO RELOCATION OF MAILBOXES TO A TEMPORARY LOCATION THAT WILL ALLOW THE COMPLETION OF THE WORK AND SHALL ALSO INCLUDE THE RESTORATION OF MAILBOXES TO THEIR ORIGINAL LOCATION OR APPROVED NEW LOCATION. ANY RELOCATION OF MAILBOX SERVICES MUST FIRST BE COORDINATED WITH THE U.S. POSTAL SERVICE AND AFFECTED PROPERTY OWNERS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

PAVEMENT

PAVEMENTS SHALL BE CUT IN NEAT, STRAIGHT LINES THE FULL DEPTH OF THE EXISTING PAVEMENT, OR AS REQUIRED BY THE CITY ENGINEER.

BUTT JOINTS BETWEEN EXISTING AND NEW PAVEMENT SHALL BE MADE WHERE INDICATED ON THE PLANS IN ACCORDANCE WITH ODOT STD. CONSTRUCTION DWG. BP-3.1.

PAVEMENT REPLACEMENT SHALL BE CONDUCTED ACCORDING TO CITY OF COLUMBUS STANDARD DRAWING 1441 AND APPLICABLE CITY OF DUBLIN STANDARD DRAWINGS. THE REPLACEMENT OF DRIVEWAYS, HANDICAPPED RAMPS, SIDEWALKS, SHARED-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.

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

SUBGRADE

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 COMPACTION REQUIREMENTS.

SUBGRADE COMPACTION SHALL ALSO BE REQUIRED UNDER SIDEWALKS AND SHARED-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.

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 SECTION 204.04.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED AS AN ALLOWANCE FOR BIDDING PURPOSES:

ITEM 204, EXCAVATION OF SUBGRADE	2000 CU YD
ITEM 204, GRANULAR EMBANKMENT, NO. 2 STONE	1500 CU YD
ITEM 204, GRANULAR EMBANKMENT, NO. 304 STONE	500 CU YD

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 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.

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.

PRIVATE LANDSCAPING ITEMS

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

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.

UTILITIES

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

COLUMBIA GAS
1600 DUBLIN ROAD
COLUMBUS, OHIO 43215
TEL: 614-481-1057
CELL: 614-370-1906
CONTACT: ROB CALDWELL

AT&T
111 N. 4TH STREET
ROOM 802
COLUMBUS, OHIO 43215
TEL: 614-223-7162
CONTACT: TOM ZIOMEK

TIME WARNER CABLE
3760 INTERCHANGE DRIVE
COLUMBUS, OHIO 43204
TEL: 614-481-5262
CELL: 614-348-2979
CONTACT: RAY MAURER

WIDE OPEN WEST
3675 CORPORATE DRIVE
COLUMBUS, OHIO 43231
TEL: 614-725-5003
CELL: 614-668-7632
CONTACT: ROB CARPENTER

DEL-CO WATER CO.
6658 OLENTANGY RIVER ROAD
DELAWARE, OHIO 43015
TEL: 740-548-7746 EXT. 2191
CONTACT: SHANE CLARK

OHIO EDISON
420 YORK STREET
SPRINGFIELD, OHIO 45505
TEL: 937-327-1283
CONTACT: CHRIS HARPER

AMERICAN ELECTRIC POWER
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
TEL: 614-883-6831
CELL: 614-949-8883
CONTACT: PAUL PAXTON

CITY OF DUBLIN
DIVISION OF ENGINEERING
5800 SHIER RINGS ROAD
DUBLIN, OHIO 43016
TEL: 614-410-4621
CONTACT: MIKE SWEDER, P.E.

VILLAGE OF SHAWNEE HILLS
40 W. REINDEER DRIVE
SHAWNEE HILLS, OHIO 43065
TEL: 614-746-3082
CONTACT: ED SWANSON

CITY OF COLUMBUS
DIVISION OF WATER
910 DUBLIN ROAD
COLUMBUS, OHIO 43215
TEL: 614-645-7788

ODOT DISTRICT 6 (TRAFFIC)
400 EAST WILLIAM STREET
DELAWARE, OHIO 43015
TEL: 740-833-8198
CONTACT: KRAIG SHREWSBERRY

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 OWNER AND THE CITY ENGINEER.

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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 NON-WORKING HOURS. TRENCHES OUTSIDE THESE AREA SHALL BE BACKFILLED OR SHALL BE PROTECTED BY APPROVED TEMPORARY FENCING OR BARRICADES DURING NON-WORKING 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 GRANULAR MATERIAL.

TRENCHES WITHIN 2 FEET OF PROPOSED PAVEMENT, CURB AND GUTTER, BERM, SHOULDERS, SIDEWALK, OR SHARED-USE PATH, OR WHERE SPECIFICALLY CALLED FOR ON THE PLANS, SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS.

GRANULAR BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS. 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.

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.

ITEM 201, TREES OR STUMPS REMOVED

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.

THE FOLLOWING IS AN ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZE	NO. OF TREES	NO. OF STUMPS
OVER 12"-24" (18" SIZE)	14	-
OVER 24"-36" (30" SIZE)	3	-

THE ABOVE TREE REMOVAL QUANTITIES ARE APPROXIMATE AND 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.

ITEM 201, CLEARING AND GRUBBING

THE CONTRACTOR SHALL REMOVE THE TREES DEEMED NECESSARY BY THE CITY OF DUBLIN TO CONSTRUCT THE PROPOSED IMPROVEMENTS WITHIN THE HEAVILY WOODED AREAS ALONG THE WEST SIDE OF DUBLIN ROAD BETWEEN STA. 15+75 AND STA. 18+50, AND ALONG THE NORTH SIDE OF GLICK ROAD BETWEEN STA. 52+75 TO STA. 53+25. THE CITY HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL WITHIN THESE HEAVILY WOODED AREAS.

REMOVE ALL TREES AND STUMPS DESCRIBED ABOVE UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING.

DRAINAGE

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 SEWER, DRAINS, AND OTHER WATERCOURSES ENCOUNTERED AND DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO A CONDITION SATISFACTORY TO THE CITY ENGINEER. PAYMENT FOR THIS SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

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.

WHERE THE WORK CALLS FOR RELOCATION OF EXISTING DITCHES OR STORM SEWER, THE CONTRACTOR SHALL REESTABLISH THE OUTLETS OF ALL PRIVATE DRAINS ENCOUNTERED; SUCH AS DOWNSPOUTS, FOUNDATION DRAINS, CATCH BASINS, YARD DRAINS, ETC., INTO THE NEAREST NEW DITCH OR STORM SEWER. THE COST FOR REESTABLISHING PRIVATE DRAIN OUTLETS SHALL BE INCLUDED IN THE VARIOUS STORM SEWER ITEMS.

HDPE FLARED ENDS CALLED FOR ON THE PLANS SHALL BE ADVANCED DRAINAGE SYSTEMS (ADS) "FLARED END SECTIONS", OR APPROVED EQUAL, WITH THREADED RODS AND WING NUTS. N-12 ADAPTER FITTINGS FOR CONNECTION TO CONCRETE PIPE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE FLARED END SECTIONS.

ALL STORM SEWERS WITH PIPE DIAMETERS 12 INCHES TO 15 INCHES SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C76, WALL B, CLASS V. ALL STORM SEWERS WITH PIPE DIAMETERS 18 INCHES AND LARGER PIPE SHALL BE ASTM C-76, CLASS III, OR 901.02 ITEM 20 HDPP, UNLESS OTHERWISE SHOWN ON THE PLANS.

THE CONTRACTOR SHALL INCLUDE THE COST OF CONNECTION TO EXISTING STRUCTURES IN THE UNIT PRICE BID FOR THE VARIOUS 901 ITEMS. ALL MANHOLE CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE PROVISIONS OF ITEM 604.

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

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.

ALL EXISTING AND PROPOSED CASTINGS SHALL BE ADJUSTED TO MATCH THE SURROUNDING FINISH GRADE BY THE CONTRACTOR. TOP OF CASTING ELEVATIONS (T/C) PROVIDED ON THE PLANS ARE APPROXIMATE. TOP OF GRATE (T/G) ELEVATIONS FOR CURB AND GUTTER INLETS ARE THE CENTER OF GRATE ELEVATION AT THE FACE OF CURB. 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 CASTING 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.

REVIEW OF DRAINAGE FACILITIES

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 CLEAN 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 INSPECTIONS, CLEANING, AND MAINTENANCE OF EXISTING AND NEW STORM SEWER DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT CONTRACT ITEMS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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 BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT OR EXISTING APPURTENANCE TO BE CONNECTED DIFFERS FROM THE PLAN ELEVATION, THE CITY ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

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

ITEM 601, ROCK CHANNEL PROTECTION, REMOVED AND RELOCATED, AS PER PLAN

THE CONTRACTOR SHALL CAREFULLY REMOVE THE EXISTING ROCK CHANNEL PROTECTION AT STA. 52+50 LT. AND RELOCATE IT TO THE PROPOSED STORM SEWER OUTLET ENDWALL AT STA. 52+45 LT. THE RELOCATED ROCK CHANNEL PROTECTION DIMENSIONS SHALL BE SIMILAR IN SIZE TO THE EXISTING CONFIGURATION. THE CONTRACTOR SHALL PROVIDE AND INSTALL A NEW FILTER TO UNDERLY THE RELOCATED ROCK CHANNEL PROTECTION. THE NEW FILTER SHALL BE FILTER FABRIC AS PER SECTION 601.09. COST OF THE FILTER FABRIC SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD FOR ITEM 601, ROCK CHANNEL PROTECTION, REMOVED AND RELOCATED, AS PER PLAN.

ITEM 601, ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER

ITEM 601, ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER SHALL BE PROVIDED AT THE OUTLET END OF ALL STORM SEWERS AT THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS. ITEM 601 MATERIALS SHALL CONSIST OF NATURAL, BROKEN, OR CRUSHED ROCK. BROKEN CONCRETE MATERIALS ARE UNACCEPTABLE. THE FILTER UNDERLYING THE ROCK CHANNEL PROTECTION SHALL BE FILTER FABRIC AS PER SECTION 601.09

ITEM SPECIAL, MAILBOX REMOVED AND RESET

THE CONTRACTOR SHALL CAREFULLY REMOVE AND REERECT MAILBOXES AND SUPPORTS AT THE LOCATIONS SHOWN ON THE PLANS, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE REERECTED SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUT, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY MAILBOX OR SUPPORT DAMAGED DURING THEIR REMOVAL OR REERECTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL, MAILBOX REMOVED AND RESET AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

AMERICANS WITH DISABILITIES ACT (ADA)
ITEM 608, CURB RAMP, AS PER PLAN
ITEM 608, DETECTABLE WARNING, AS PER PLAN

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.

DETECTABLE WARNINGS SHALL BE PROVIDED WHEREVER A CURB RAMP CROSSES A VEHICULAR WAY, EXCLUDING UNSIGNALIZED DRIVEWAYS, IN ACCORDANCE WITH DUBLIN STANDARD DRAWING PD-03. 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 SHARED-USE PATH.

ITEM 608, 4" CONCRETE WALK, AS PER PLAN

IN ADDITION TO THE CONCRETE WALK, THE CONTRACTOR SHALL SHAPE AND UNIFORMLY COMPACT THE SUBGRADE TO A SURFACE CONFORMING TO THE PLANS AND THE REQUIREMENTS OF ITEM 204 AND 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.

ITEM 609, COMBINATION CONCRETE CURB AND GUTTER, AS PER PLAN

THE COMBINATION CONCRETE 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.

CALCULATED LMO
CHECKED KJG

GENERAL NOTES

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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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 OF 1/2" OR GREATER IN ANY DIMENSION.

ITEM 659, SEEDING AND MULCHING, AS PER PLAN

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 S.F. 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 TACK. TACK SHALL BE ADEQUATE TO PREVENT THE STRAW FROM BEING BLOWN 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: NOT PERMITTED.

HYDRO-MULCHING: 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.

UNDERDRAIN OUTLETS

UNDERDRAIN PIPE OUTLETS SHALL BE ITEM 603, 4" CONDUIT, TYPE F. AN UNDERDRAIN PIPE OUTLET SHALL BE PROVIDED AT EACH PROPOSED CURB AND GUTTER INLET AND SHALL BE A MINIMUM OF 10 FEET IN LENGTH. A QUANTITY OF ITEM 603, 4" CONDUIT, TYPE F HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

WATER LINES

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

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

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.

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

ALL WATER MAINS 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.

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 THREE (3) SETS OF "AS-BUILT" PLANS (FULL SIZE SHEETS ONLY), THE AS-BUILT SURVEY COORDINATES, AND A LETTER STATING THAT THE WATER MAINS HAVE BEEN PRESSURE TESTED AND NEED TO BE DISINFECTED, TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER MAINS CONSTRUCTED UNDER THIS PLAN.

ALL WATER METERS ASSOCIATED WITH THIS PROJECT SHALL BE INSTALLED INSIDE THE PROPOSED STRUCTURE UNLESS A METER PIT IS APPROVED BY THE ADMINISTRATOR OF THE DIVISION OF WATER. ALL METER PITS MUST CONFORM TO STANDARD DRAWING L-7103 FOR 5/8" THROUGH 1" METERS OR L-6317 A, B, C, D, & E FOR 1-1/2" OR LARGER METERS.

NO SERVICE CONNECTION PERMITS SHALL BE ISSUED OR CONNECTIONS MADE TO ANY SERVICE TAPS UNTIL WATER MAINS HAVE BEEN DISINFECTED BY THE CITY OF COLUMBUS, DIVISION OF WATER.

WATER SERVICE BOXES SHALL BE PLACED 1' FROM THE EDGE OF THE PROPOSED OR EXISTING SIDEWALK BETWEEN THE SIDEWALK AND THE CURB, OR 2 FEET INSIDE THE RIGHT-OF-WAY OR EASEMENT LINE WHEN NO SIDEWALK IS PRESENT OR PROPOSED. REFER TO STANDARD DRAWING L-9901 FOR ADDITIONAL INFORMATION.

MAINTAIN EIGHTEEN (18) INCHES VERTICAL AND TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ANY SANITARY OR STORM SEWER PIPING AND STRUCTURES AND ALL PROPOSED WATER MAINS. FOR INSTANCES WHERE TEN (10) FEET OF HORIZONTAL SEPARATION CANNOT BE MAINTAINED FROM A SEWER STRUCTURE, THE WATER LINE SHALL BE INSTALLED SUCH THAT THE STRUCTURE IS CENTERED BETWEEN THE PIPE JOINTS ON A FULL LENGTH (18 FOOT MINIMUM) PIECE OF WATER PIPE.

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 ROADWAY PAVEMENT OR SHARED-USE PATH 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.

ITEM 809, FIRE HYDRANT, RELOCATED, AS PER PLAN

THIS ITEM SHALL MEET ALL OF THE REQUIREMENTS OF ITEM 809, FIRE HYDRANT, RELOCATED EXCEPT THAT THE CONTRACTOR IS TO PROVIDE A NEW FIRE HYDRANT. THE EXISTING HYDRANT SHALL BE CAREFULLY REMOVED AND CAREFULLY DELIVERED AND UNLOADED AT 6371 SHIER-RINGS ROAD, DUBLIN, OHIO. ANY ITEMS SPECIFICALLY DESIGNATED AS "UNUSABLE" BY THE CITY SHALL BE DISPOSED OF BY THE CONTRACTOR.

FIRE HYDRANT RELOCATIONS SHALL CONFORM TO APPLICABLE SECTIONS OF ITEM 809 OF THE COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. WORK SHALL CONSIST OF REMOVING THE EXISTING HYDRANT, INSTALLING NEW 6" PIPE AND FITTING AS REQUIRED TO LOCATE THE FIRE HYDRANT 2 FEET FROM BACK OF PROPOSED CURB OR 8 FEET OFF EDGE OF PAVEMENT, RESETTING HYDRANT AND BLOCKING AS REQUIRED. ALL 6" PIPE SHALL BE INSTALLED AT 4-FOOT MINIMUM COVER. HYDRANT EXTENSIONS SHALL BE PROVIDED PER ITEM 810, AS REQUIRED. RELOCATED FIRE HYDRANTS SHALL BE ADJUSTED TO PROPER GRADE AND FACED IN THE PROPER DIRECTION. WHEN A HYDRANT IS RELOCATED FIFTEEN (15) FEET OR MORE FROM THE "TYPICAL HYDRANT SETTING" VALVE LOCATION (SEE L-6637A), AN ADDITIONAL VALVE SHALL BE INSTALLED, AND RESTRAINED, WITHIN TWO (2) FEET OF THE RELOCATED HYDRANT. PAYMENT IS TO BE INCLUDED UNDER ITEM 809, FIRE HYDRANT RELOCATED.

NO TWO (2) ADJACENT FIRE HYDRANTS SHALL BE TAKEN OUT OF SERVICE CONCURRENTLY.

RELOCATED FIRE HYDRANTS SHALL BE PUT BACK IN SERVICE AS SOON AS POSSIBLE.

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 FEET 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 COORDINATE SYSTEM, NORTH ZONE, WITH ELEVATIONS BASED ON NAVD 88 DATUM. ALL COORDINATES (NORTHING, EASTING, ELEVATION) SHALL BE REFERENCED TO THE NEAREST HUNDREDTH (N XXXXXX.XX, E XXXXXX.XX, ELEV. XXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT 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 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.

					AS-BUILT		
WATER ITEM	STA.	OFFSET	NORTHING	EASTING	NORTHING	EASTING	C/L ELEV.
GLICK ROAD							
VALVE ATG	46+54.38	19.28' LT.	178145.46	1791310.49			
FIRE HYDRANT RELOCATED	47+16.00	22.50' LT.	178166.91	1791368.34			
6" VALVE	47+23.50	22.00' LT.	178168.67	1791375.65			
VALVE ATG W/ HD BOX	47+23.33	17.91' LT.	178164.71	1791376.70			
VALVE ATG W/ HD BOX	47+32.44	22.15' LT.	178171.48	1791384.14			
VALVE ATG	47+32.48	26.53' LT.	178175.67	1791382.87			
VALVE ATG W/ HD BOX	47+68.54	26.50' LT.	178186.39	1791417.30			
VALVE ATG W/ HD BOX	47+72.17	18.01' LT.	178179.38	1791423.29			
FIRE HYDRANT RELOCATED	49+09.90	22.00' RT.	178182.25	1791566.69			
VALVE ATG	49+10.22	26.45' RT.	178178.10	1791568.32			

CALCULATED LMO
CHECKED KJG

GENERAL NOTES

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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ITEM SPECIAL, PAVEMENT JOINT MESH REINFORCEMENT

PROVIDE A SELF ADHESIVE PAVEMENT JOINT REINFORCING MESH (GLASGRID 8502 OR APPROVED EQUAL) AT THE LOCATIONS SHOWN IN THE PLAN OR AS DIRECTED BY THE ENGINEER, MEETING THE FOLLOWING SPECIFICATIONS:

MINIMUM APERTURE DIMENSIONS 0.375 IN. X 0.375 IN.

MAXIMUM APERTURE AREA 0.75 SQ. IN.

PERCENT OPEN AREA 40% TO 70%

MINIMUM ULTIMATE TENSILE STRENGTH (T ULT)
MACHINE DIRECTION (MD) 500 LB/FT

MINIMUM ULTIMATE TENSILE STRENGTH (T ULT)
ACROSS MACHINE DIRECTION (XMD OR CMD) 500 LB/FT

MINIMUM WEIGHT 10 OZ PER SQ YD PER ASTM D 5261-92

MAXIMUM ELONGATION AT BREAK 6% AS PER ASTM D 6637

MINIMUM MELTING POINT 400°F

PAVEMENT AREAS SHALL BE CLEANED AND FREE OF DEBRIS PRIOR TO PLACEMENT. MESH SHALL BE APPLIED TO PAVEMENT IN A MANNER THAT WILL RESIST MOVEMENT OR DEBONDING FROM CONSTRUCTION AND PAVING TRAFFIC. MESH SHALL BE PULLED TIGHT TO ELIMINATE RIPPLES. FOLLOW ALL OTHER MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF THE MATERIAL.

ITEM 611, 8" CONDUIT, TYPE B, 748.02, SANITARY FORCE MAIN

EXISTING 8" SANITARY SEWER FORCE HAS THE POTENTIAL TO BE IN CONFLICT WITH PROPOSED IMPROVEMENTS WITHIN THE FOLLOWING LIMITS:

DUBLIN ROAD: STA. 20+34 TO STA, 21+91 LT.
GLICK ROAD: STA. 48+50 TO STA. 49+81 LT.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER FOR RELOCATION OF SANITARY SEWER FORCE MAIN, IF REQUIRED.

ITEM 611, 8" CONDUIT, TYPE B, 748.02, SANITARY FORCE MAIN 300 LF

ITEM 625. LIGHT POLE ADJUSTED TO GRADE, AS PER PLAN

THE CONTRACTOR SHALL DISCONNECT ALL ELECTRICAL LIGHTING CONNECTIONS AND CAREFULLY REMOVE THE LIGHT POLE AND LUMINAIRE FOR STORAGE AND RE-ERECTION. THE EXISTING LIGHT POLE FOUNDATION AND CONDUIT STUBS SHALL REMAIN IN PLACE AS THE CONTRACTOR INSTALLS CONDUIT AND ANCHOR BOLT EXTENSIONS TO EXTEND THE TOP OF FOUNDATION APPROXIMATE ONE (1) FOOT. A CONCRETE FOUNDATION CAP WILL BE INSTALLED TO EXTEND THE TOP OF FOUNDATION TO A FOUR (4) INCH REVEAL ABOVE THE PROPOSED GRADE ELEVATION AS SHOWN ON THE PLANS. SEE SHEET 20. THE CONTRACTOR SHALL ENSURE THE THE LIGHTING CIRCUIT IS FULLY FUNCTIONAL DURING THIS WORK AND STREET LIGHTING OPERATIONS ARE NOT INTERRUPTED. ANY CIRCUIT CONNECTORS, REMOVAL, STORAGE AND RE-ERECTION OF THE LIGHT POLE AND LUMINAIRE SHALL BE INCLUDED WITH THIS PAY ITEM. THE CONTRACTOR SHALL COORDINATE ALL LIGHTING WORK WITH THE VILLAGE OF SHAWNEE HILLS.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM 625, LIGHT POLE ADJUSTED TO GRADE, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

ITEM 607, WOOD BOARD FENCE, AS PER PLAN

THE CONTRACTOR SHALL INSTALL WOOD BOARD FENCE TO REPLACE EXISTING FENCE BEING REMOVED WHERE INDICATED IN THE PLANS. THE FENCE SHALL MATCH THE EXISTING WOOD BOARD FENCE IN SIZE, STYLE, AND COLOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 607, WOOD BOARD FENCE, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

ITEM SPECIAL, WOOD BARRIER RAIL RELOCATED

THE CONTRACTOR SHALL CAREFULLY REMOVE AND RELOCATE THE WOOD BARRIER RAIL FROM STA. 46+80 LT. TO STA. 49+40 LT. ALONG GLICK ROAD IN FRONT OF THE MORGAN HOUSE, ALONG DUBLIN ROAD FROM STA. 20+62 LT. TO ITS SOUTHERN TERMINUS AT STA. 20+39 LT., AND FROM STA. 21+84 LT. TO ITS NORTHERN TERMINUS AT STA. 21+99 LT. THE WOOD BARRIER RAIL SHALL BE REINSTALLED IN A MANNER THAT IS ACCEPTABLE TO THE ENGINEER, AT A NEW LOCATION TO BE DETERMINED BY THE ENGINEER IN COORDINATION WITH THE BUSINESS OWNER.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM SPECIAL, WOOD BARRIER RAIL RELOCATED AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

ITEM SPECIAL, PORTION OF MODULAR BLOCK WALL REMOVED AND DISPOSED OF

THE CONTRACTOR SHALL CAREFULLY REMOVE AND DISPOSE OF A PORTION OF THE MODULAR BLOCK WALL UNDERNEATH THE TIMBER GUARDRAIL ADJACENT TO THE WALGREEN'S DRIVEWAY ON GLICK ROAD. THE WALL SHALL BE REMOVED TO THE LIMIT OF THE GUARDRAIL REMOVAL IN A MANNER ACCEPTABLE TO THE ENGINEER. DO NOT DISTURB THE WALL OUTSIDE OF THE LIMITS OF REMOVAL.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM SPECIAL, PORTION OF MODULAR BLOCK WALL REMOVED AND DISPOSED OF AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

ITEM SPECIAL, STONE SIGN RELOCATED

THE CONTRACTOR SHALL CAREFULLY REMOVE THE MUIRFIELD VILLAGE SIGN AT THE SOUTHWEST CORNER OF THE DUBLIN ROAD AND GLICK ROAD INTERSECTION. THE SIGN SHALL BE RELOCATED TO A NEW LOCATION TO BE DETERMINED BY THE ENGINEER IN COORDINATION WITH THE PROPERTY OWNER. CARE SHALL BE TAKEN TO NOT DAMAGE THE SIGN DURING REMOVAL OR THE SUBSEQUENT REERECTION.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL, STONE SIGN RELOCATED AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

ITEM SPECIAL, RELOCATION OF BUSINESS SIGN

THE CONTRACTOR SHALL CAREFULLY REMOVE THE MORGAN HOUSE SIGN AT THE NORTHWEST CORNER OF THE DUBLIN ROAD AND GLICK ROAD INTERSECTION. THE SIGN SHALL BE REINSTALLED AT A NEW LOCATION TO BE DETERMINED BY THE ENGINEER IN COORDINATION WITH THE BUSINESS OWNER.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL, RELOCATION OF BUSINESS SIGN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

ITEM SPECIAL, REMOVAL OF BUSINESS SIGN AND DISPOSAL

THE CONTRACTOR SHALL CAREFULLY REMOVE THE EXISTING ELECTRICAL/STONE/MASONRY/BRICK BUSINESS SIGNS (WENDY'S AND WALGREENS). THE CONTRACTOR SHALL COORDINATE POWER DISCONNECT WITH THE RESPECTIVE BUSINESS OWNERS. THE LOGO /ELECTRICAL PORTION OF THE SIGN SHALL BE PROVIDED TO THE BUSINESS OWNER. REMOVAL OF THE SIGN FOUNDATION SHALL EXTEND A MINIMUM OF 1' BELOW FINISHED GROUND SURFACE. BACKFILLING OF THE CAVITY CREATED BY REMOVAL SHALL BE COMPLETED IN ACCORDANCE WITH 202.02.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL, REMOVAL OF BUSINESS SIGN AND DISPOSAL AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

ITEM SPECIAL, STONE WALL REMOVED AND DISPOSED OF

THE CONTRACTOR SHALL CAREFULLY REMOVE THE STONE WALL AT THE SOUTHEAST CORNER OF THE DUBLIN ROAD AND GLICK ROAD INTERSECTION. REMOVAL SHALL EXTEND A MINIMUM OF 1' BELOW FINISHED GROUND SURFACE. BACKFILLING OF THE CAVITY CREATED BY REMOVAL SHALL BE COMPLETED IN ACCORDANCE WITH 202.02.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER FOOT FOR ITEM SPECIAL, STONE WALL REMOVED AND DISPOSED OF AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

TRAFFIC CONTROL

ITEM 630, GROUND MOUNTED SUPPORT, NO. 3 & 4 POST, 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 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 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, GROUND MOUNTED SUPPORT, ANCHOR POST, 2 1/4" SQUARE, 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 STD. DWG. 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, REMOVAL OF GROUND MOUNTED SIGN AND STORAGE, AS PER PLAN

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 THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID PER EACH SIGN REMOVED AND DELIVERED.

ITEM 630, SIGN, FLAT SHEET

CUSTOM 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 SPECIAL, REMOVAL OF STREET NAME SIGN POST AND REERECTION

THE CONTRACTOR SHALL REMOVE THE STREET NAME SIGN POST AT THE NORTHEAST CORNER OF GLICK ROAD AND MUIRKIRK DRIVE AND REERECT IT AT THE LOCATION INDICATED ON THE PLANS. THE STREET NAME SIGN POST IS A SQUARE WOOD POST WITH STREET NAMES INSCRIBED INTO ITS SURFACE. CARE SHALL BE TAKEN TO NOT DAMAGE THE POST DURING REMOVAL.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM SPECIAL, REMOVAL OF STREET NAME SIGN POST AND REERECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK NOTED ABOVE.

CALCULATED LMO
CHECKED KJG

GENERAL NOTES

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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DUBLIN ROAD DETOURS

DETOURS SHALL BE PROVIDED ALONG THE ROUTES SHOWN ON THE DETOUR PLAN WITH SIGNING AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE CITY OF DUBLIN 14 DAYS ADVANCED NOTICE OF ANY PLANNED CLOSURES. PAYMENT FOR ALL LABOR AND MATERIALS ASSOCIATED WITH DETOUR SIGNING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THESE PLANS.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED AT LOCATIONS DIRECTED BY THE CITY OF DUBLIN A MINIMUM OF ONE (1) WEEK PRIOR TO THE START OF THE DETOUR TO GIVE ADVANCE NOTICE OF CLOSURES TO MOTORISTS. THE CONTRACTOR SHALL CONTACT THE CITY OF DUBLIN AT LEAST 14 DAYS IN ADVANCE OF ANY CLOSURE TO OBTAIN DIRECTION FOR THE PLACEMENT AND PCMS MESSAGES.

ITEM 614, LOCAL DETOUR SIGNING

THIS ITEM OF WORK SHALL INCLUDE PLACEMENT AND SUBSEQUENT REMOVAL OF LOCAL DETOUR SIGNING BY THE CONTRACTOR AS SHOWN OF SHEET 11. DUE TO POTENTIAL LOCAL DETOUR CONFLICTS WITH DELAWARE COUNTY ENGINEER PROJECT DEL-CR131-0.67 AT THE INTERSECTION OF HARRIOTT ROAD AND CONCORD ROAD, THIS ITEM OF WORK MAY OR MAY NOT BE IMPLEMENTED. COORDINATION BETWEEN THE CITY OF DUBLIN, DELAWARE COUNTY ENGINEER AND CONTRACTORS FOR THE RESPECTIVE PROJECTS SHALL BE REQUIRED PRIOR TO INSTALLATION OF LOCAL DETOUR SIGNING AND/OR IMPLEMENTATION OF A LOCAL DETOUR.

PAYMENT FOR ALL COORDINATION EFFORTS, LABOR, EQUIPMENT AND MATERIALS REQUIRED FOR SIGNING OF THE LOCAL DETOUR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, LOCAL DETOUR SIGNING.

COST OF TYPE III BARRICADES, ATTACHED ROAD CLOSED SIGNS, AND WARNING LIGHTS AS DETAILED ON SHEET 11 SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC, AS THESE ITEMS WILL BE REQUIRED INDEPENDENT OF THE LOCAL DETOUR.

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE (1) LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT DURING PHASE 2 AS DISCUSSED IN THE SEQUENCE OF CONSTRUCTION NOTE ON SHEET 9, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEETS 10-11.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE CONTRACTOR SHALL MAINTAIN ACCESS FROM PUBLIC ROADWAYS TO ALL ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION OF THIS PROJECT, AS WELL AS ACCESS FOR MAIL, WATER, SANITARY SERVICE AND EMERGENCY VEHICLES.

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH THE CONTRACT.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

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 THE RATE OF 2.5 TIMES THE ACTUAL COST OF 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 1 HOUR FROM THE TIME OF NOTIFICATION BY THE CITY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 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 ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

COVERING OF SIGNS

THE CONTRACTOR SHALL COVER ALL EXISTING SIGNS THAT CONFLICT WITH MAINTENANCE OF TRAFFIC SIGNS. COVERING OF SIGNS SHALL BE IN ACCORDANCE WITH 614.03. COSTS FOR COVERING SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN (PCMS), AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE, WHEN NO LONGER NEEDED, PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AS REQUIRED. ONLY CLASS II SIGNS WILL BE APPROVED FOR USE ON THIS PROJECT.

THE SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TAMPER AND VANDAL PROOF ENCLOSURE. THE SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY.

WHEN NOT BEING USED FOR CLOSURES, THE SIGN SHALL BE REMOVED FROM THE PROJECT AND STORED.

PLACEMENT, OPERATION, MAINTENANCE, AND ALL ACTIVATION OF THE SIGN BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION, YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS.

THE ENGINEER SHALL BE PROVIDED ACCESS TO THE SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATING INSTRUCTIONS ENABLING CITY OF DUBLIN PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ONBOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION WITH UP TO SIX (6) MESSAGE PHASES SHALL BE SUPPORTED, BUT NORMALLY, NOT MORE THAN THREE (3) MESSAGE PHASES SHOULD BE EMPLOYED. A BLANK PHASE SHALL BE INSERTED AT THE END OF EACH MESSAGE. THE SPEED OF EACH PHASE SHALL BE ADJUSTED TO THE SPEED WHICH WILL PERMIT THE COMPLETE MESSAGE TO BE READ AT LEAST TWICE BY A MOTORIST TRAVELING THE SPEED LIMIT.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED, OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY PER DIFFERENT DAYS OF THE WEEK.

THE PCMS SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03 (C). THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 2 HOURS INCLUDING WEEKENDS.

THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 104.04. AN ESTIMATED QUANTITY OF 20 SIGN-MONTHS HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS ITEM. PAYMENT FOR THE ABOVE DISCUSSED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID PER SIGN-MONTH FOR EACH ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN

USE OF LAW ENFORCEMENT OFFICES (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, DELAWARE 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 A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER 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, AS PER PLAN	80 HOUR

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 AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN.

DRUM REQUIREMENTS

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC.

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	20 M GAL

CALCULATED LMO
CHECKED KJG

MAINTENANCE OF TRAFFIC NOTES

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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SEQUENCE OF CONSTRUCTION

THE FOLLOWING CONSTRUCTION SEQUENCE IS INTENDED TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC WHILE PROVIDING ADEQUATE WORK ZONE SPACE FOR CONSTRUCTION ACTIVITIES.

PHASE 1: PAVEMENT PLANING

- PLACE WORK ZONE SIGNS AND TRAFFIC CONTROL MEASURES AS REQUIRED FOR PHASE 1 CONSTRUCTION. SEE PHASE 3 MAINTENANCE OF TRAFFIC PLAN FOR ADVANCE SIGNING.
- PERFORM PAVEMENT PLANING WHILE MAINTAINING TWO-WAY, ONE LANE TRAFFIC OPERATION WITH FLAGGERS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-97.11.
- PLACE THE VARIABLE DEPTH INTERMEDIATE WEDGE COURSE ON PLANED PAVEMENT FOR BOTH DUBLIN ROAD AND GLICK ROAD WHILE MAINTAINING TWO-WAY, ONE LANE TRAFFIC OPERATION WITH FLAGGERS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-97.11.
- PLACE WORK ZONE PAVEMENT MARKINGS (WITHIN PHASE 1 WORK LIMITS) AS SHOWN ON THE PHASE 3 MAINTENANCE OF TRAFFIC PLAN.

PHASE 2: NORTH LEG OF DUBLIN ROAD FULL-DEPTH RECONSTRUCTION

- CONSTRUCT A TEMPORARY ACCESS DRIVEWAY FOR 9130 DUBLIN ROAD AS DETAILED ON THE PHASE 2 MAINTENANCE OF TRAFFIC PLAN.
- PLACE ALL NEEDED DETOUR SIGNS AND TYPE III BARRICADES AS NOTED ON THE DETOUR MAP AND LOCAL DETOUR MAP. LOCAL DETOUR SIGNING SHALL BE COORDINATED WITH DELAWARE COUNTY ENGINEER'S PROJECT DEL-CR131-0.67 AT THE INTERSECTION OF HARRIOTT ROAD AND CONCORD ROAD.
- CLOSE DUBLIN ROAD (NORTH OF GLICK ROAD) WHILE PROVIDING ACCESS TO ABUTTING PROPERTIES WITHIN THE PROJECT LIMITS AT ALL TIMES. CLOSURE OF DUBLIN ROAD SHALL BE LIMITED TO A MAXIMUM OF FOURTEEN (14) CONSECUTIVE CALENDAR DAYS. LIQUIDATED DAMAGES IN THE AMOUNT OF $1,000 PER DAY SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT DUBLIN ROAD REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.
- CONSTRUCT PROPOSED IMPROVEMENTS ON DUBLIN ROAD FROM STA. 25+25 TO STA. 28+25, INCLUDING EXCAVATION, UNDERDRAINS, CURB AND GUTTER, PAVEMENT THROUGH THE INTERMEDIATE COURSE, DRIVEWAY APPROACH, SIDEWALK, AND SHARED-USE PATH.
- PLACE WORK ZONE PAVEMENT MARKINGS REQUIRED FOR PHASE 3 CONSTRUCTION.
- REMOVE ALL DETOUR SIGNS AND TYPE III BARRICADES, AND REOPEN DUBLIN ROAD (NORTH OF GLICK ROAD) TO TRAFFIC.
- REMOVE TEMPORARY ACCESS DRIVEWAY TO 9130 DUBLIN ROAD.

PHASE 3: EAST SIDE OF DUBLIN ROAD AND NORTH SIDE OF GLICK ROAD (EAST OF DUBLIN ROAD).

- PLACE MISCELLANEOUS TRAFFIC CONTROL MEASURES AND 42" RETROREFLECTORIZED WEIGHTED CHANNELIZERS ALONG THE PHASE 3 WORK ZONE AS SHOWN ON THE PHASE 3 MAINTENANCE OF TRAFFIC PLAN.
- CONSTRUCT PROPOSED IMPROVEMENTS, INCLUDING EXCAVATION, STORM SEWER, UNDERDRAINS, CURB AND GUTTER, PAVEMENT WIDENING THROUGH THE ITEM 301 ASPHALT CONCRETE BASE COURSE, DRIVEWAY APPROACHES, SIDEWALK, AND APPLICABLE TRAFFIC SIGNAL ITEMS WITHIN THE PHASE 3 WORK LIMITS.

PHASE 4: WEST SIDE OF DUBLIN ROAD AND NORTH SIDE OF GLICK ROAD (WEST OF DUBLIN ROAD).

- PLACE WORK ZONE PAVEMENT MARKINGS ON DUBLIN ROAD AS SHOWN ON THE PHASE 4 MAINTENANCE OF TRAFFIC PLAN, ALONG WITH 42" RETROREFLECTORIZED WEIGHTED CHANNELIZERS ALONG THE PHASE 4 WORK ZONE.
- CONSTRUCT PROPOSED IMPROVEMENTS, INCLUDING EXCAVATION, STORM SEWER, HYDRANT RELOCATION, UNDERDRAINS, CURB AND GUTTER, PAVEMENT WIDENING THROUGH THE ITEM 301 ASPHALT CONCRETE BASE COURSE, DRIVEWAY APPROACHES, SIDEWALK, SHARED-USE PATH AND APPLICABLE TRAFFIC SIGNAL ITEMS WITHIN THE PHASE 4 WORK LIMITS.
- COMPLETE INSTALLATION OF ALL TRAFFIC SIGNAL ITEMS NECESSARY TO ACTIVATE THE NEW SIGNAL. THE EXISTING TRAFFIC SIGNAL SHALL REMAIN IN OPERATION AT ALL TIMES EXCEPT WHEN THE CONTRACTOR IS PERFORMING THE FINAL TRANSITION FROM THE EXISTING SIGNAL TO THE PROPOSED SIGNAL. DURING THIS TRANSITION, LAW ENFORCEMENT OFFICERS (LEOS) SHALL BE UTILIZED TO DIRECT TRAFFIC THROUGH THE INTERSECTION.
- ACTIVATE THE NEW TRAFFIC SIGNAL.
- REMOVE EXISTING TRAFFIC SIGNAL.

PHASE 5: SOUTH SIDE OF GLICK ROAD

- PLACE WORK ZONE PAVEMENT MARKINGS ON GLICK ROAD AS SHOWN ON THE PHASE 5 MAINTENANCE OF TRAFFIC PLAN, ALONG WITH 42" RETROREFLECTORIZED WEIGHTED CHANNELIZERS ALONG THE PHASE 5 WORK ZONE.
- CONSTRUCT PROPOSED IMPROVEMENTS, INCLUDING EXCAVATION, STORM SEWER, HYDRANT RELOCATION, UNDERDRAINS, CURB AND GUTTER, PAVEMENT WIDENING THROUGH THE ITEM 301 ASPHALT CONCRETE BASE COURSE, DRIVEWAY APPROACH, AND SHARED-USE PATH WITHIN THE PHASE 5 WORK LIMITS. THE DRIVEWAY APPROACH AT STA. 53+50 RT. SHALL BE COMPLETED VIA PART-WIDTH CONSTRUCTION IN ORDER TO MAINTAIN ACCESS AT ALL TIMES.
- COMPLETE FINAL GRADING AND SEEDING OPERATIONS WITHIN THE LIMITS NOTED ABOVE.

PHASE 6: COMPLETE PROJECT

- PLACE PAVEMENT REINFORCEMENT GRID OVER LONGITUDINAL PAVEMENT JOINTS AS DETAILED ON SHT. 3 WHILE PLACING ASPHALT INTERMEDIATE COURSE OVER ENTIRE PROJECT. TRAFFIC SHALL BE MAINTAINED WITH FLAGGERS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-97.11.
- PLACE FINAL SURFACE COURSE OVER ENTIRE PROJECT LIMITS WHILE MAINTAINING TRAFFIC WITH FLAGGERS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-97.11.
- PLACE FINAL PAVEMENT MARKINGS AND INSTALL NEW SIGNS.
- COMPLETE INSTALLATION OF ANY REMAINING TRAFFIC SIGNAL ITEMS.
- COMPLETE FINAL GRADING AND SEEDING OPERATIONS.
- PERFORM SITE CLEAN-UP, INCLUDING REMOVAL OF ALL CONSTRUCTION SIGNS.

ALTERNATIVE METHODS

THE CONTRACTOR MAY SUBMIT ALTERNATIVE METHODS FOR THE MAINTENANCE OF TRAFFIC PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS FROM THE CHANGE. NO ALTERNATIVE PLAN SHALL BE PLACED IN EFFECT UNTIL APPROVAL HAS BEEN RECEIVED FROM THE CITY OF DUBLIN IN WRITING.

CALCULATED LMO
CHECKED KJG

MAINTENANCE OF TRAFFIC NOTES

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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M3-1 24"x12"
M1-5 30"x24"
M4-9R 30"x24"

1

M3-1 24"x12"
M1-5 30"x24"
M4-9L 30"x24"

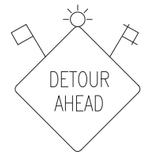
2

M3-1 24"x12"
M1-5 30"x24"
M4-9 30"x24"

3

M1-5 30"x24"
M4-8a 24"x18"

4



W20-2 36"x36"

5

R11-3A 60"x30"
M4-10L 48"x18"

6

M3-3 24"x12"
M1-5 30"x24"
M4-9R 30"x24"

7

M3-3 24"x12"
M1-5 30"x24"
M4-9L 30"x24"

8

M3-3 24"x12"
M1-5 30"x24"
M4-9 30"x24"

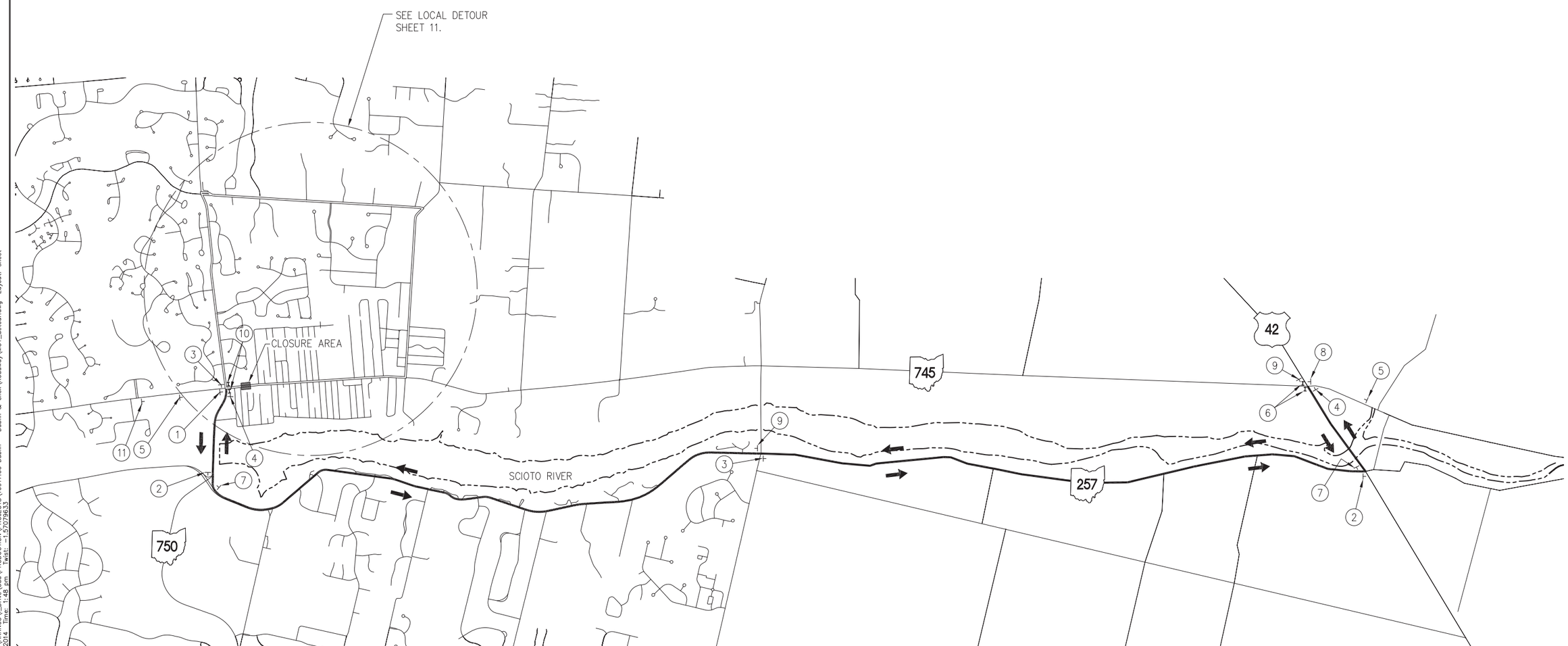
9

R11-4 60"x30"
ON 6" TYPE III
BARRICADE

10

W20-3 36"x36"

11



CALCULATED LAM
CHECKED KJG

DETOUR MAP

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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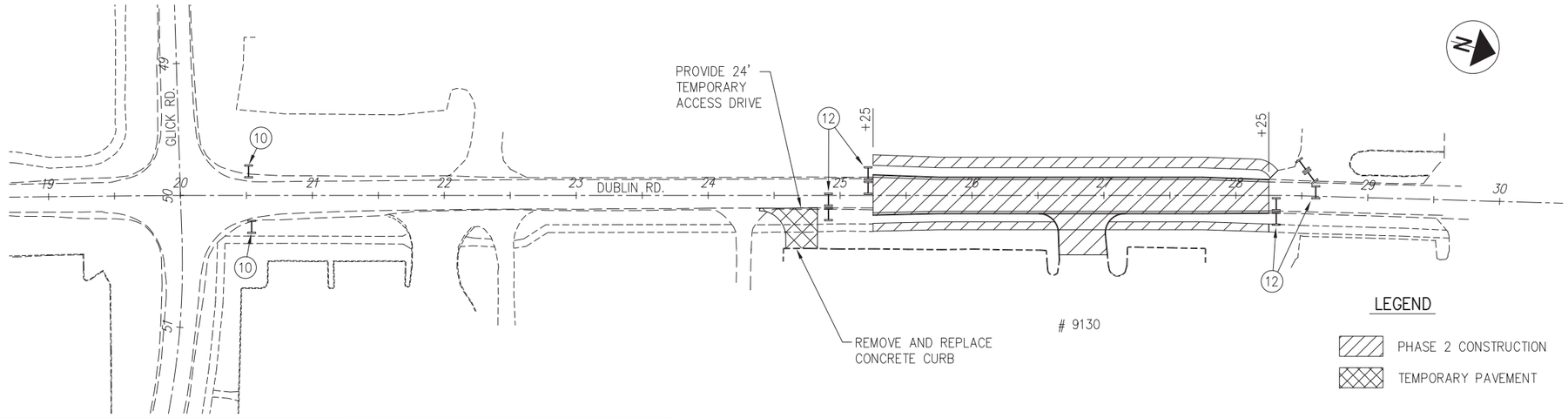

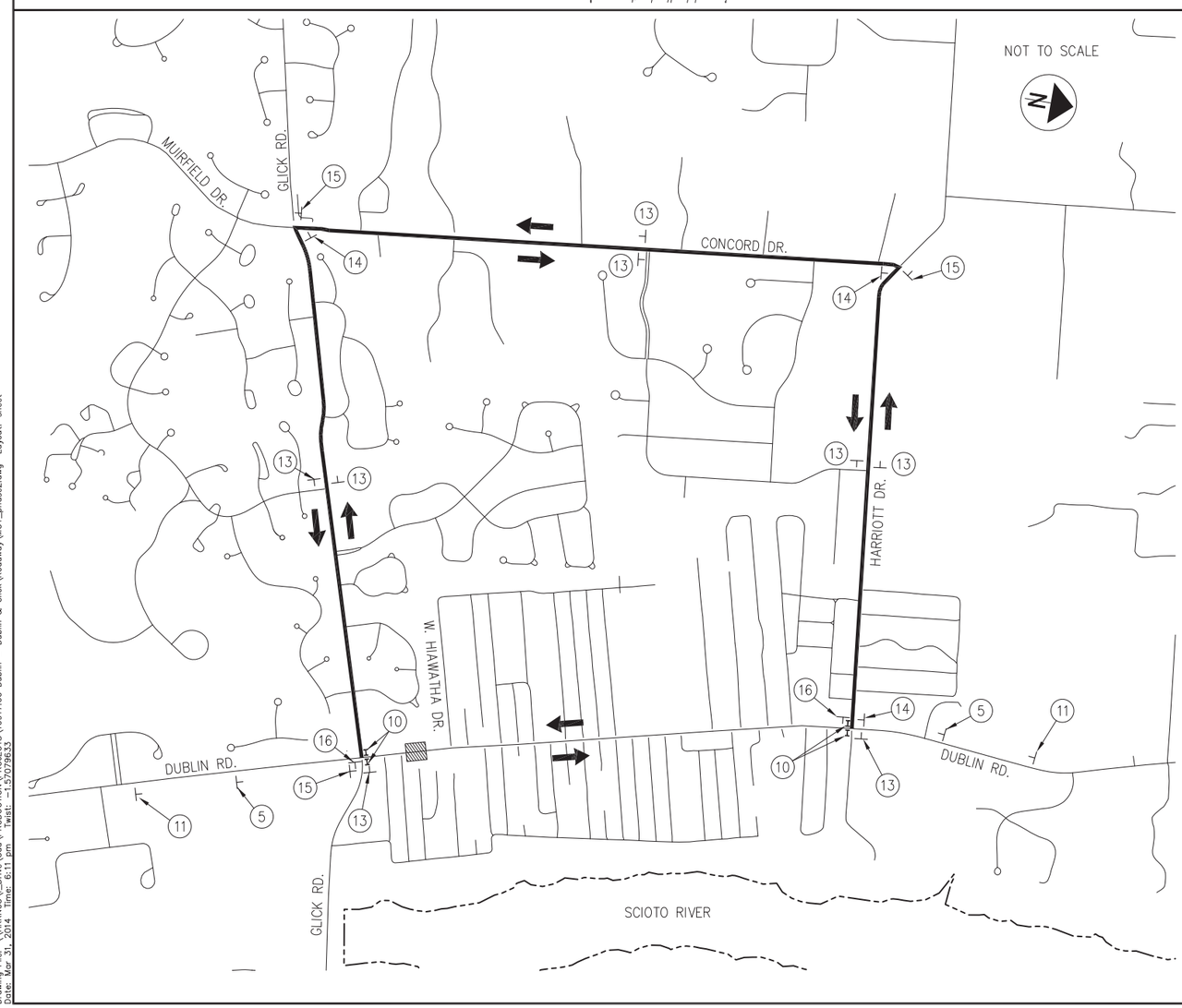

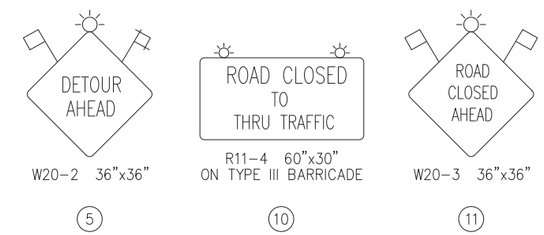

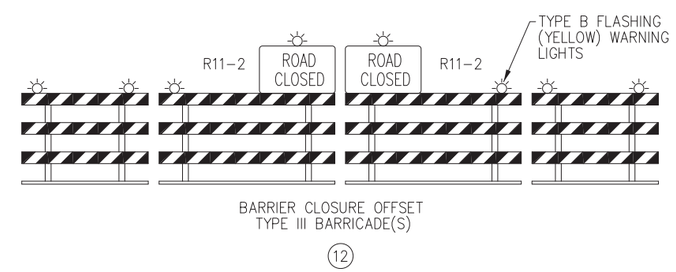

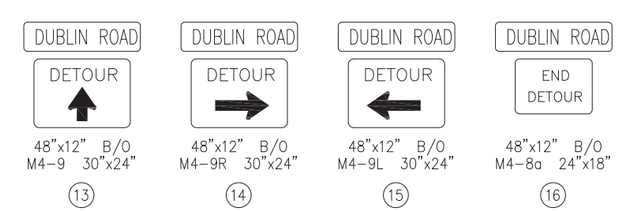

HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LAM
CHECKED KJG

MAINTENANCE OF TRAFFIC - PHASE 2 AND LOCAL DETOUR MAP

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\MOT_phase2.dwg Layout: sheet
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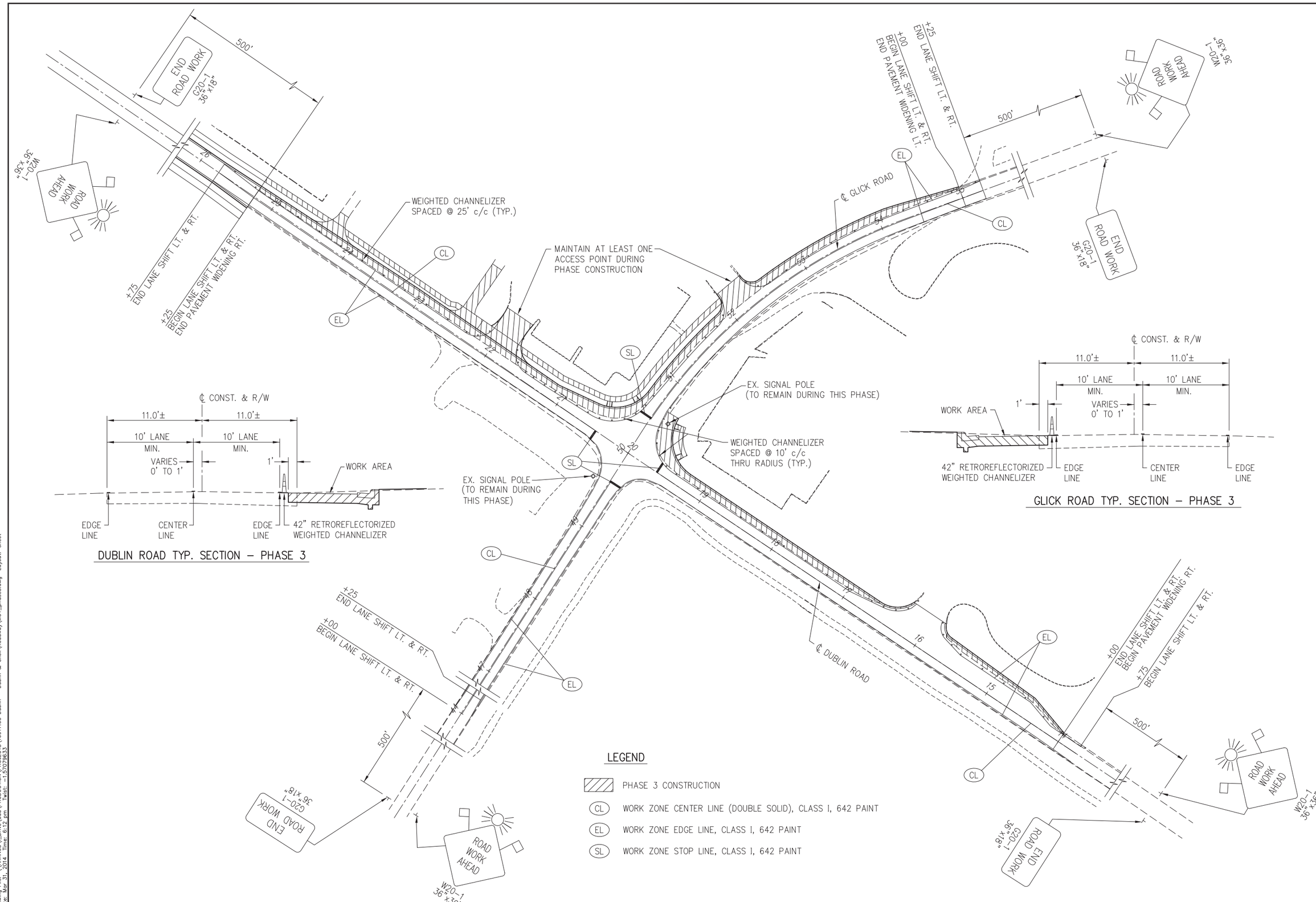

HORIZONTAL SCALE IN FEET
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CALCULATED LAM
CHECKED KJG

MAINTENANCE OF TRAFFIC - PHASE 3

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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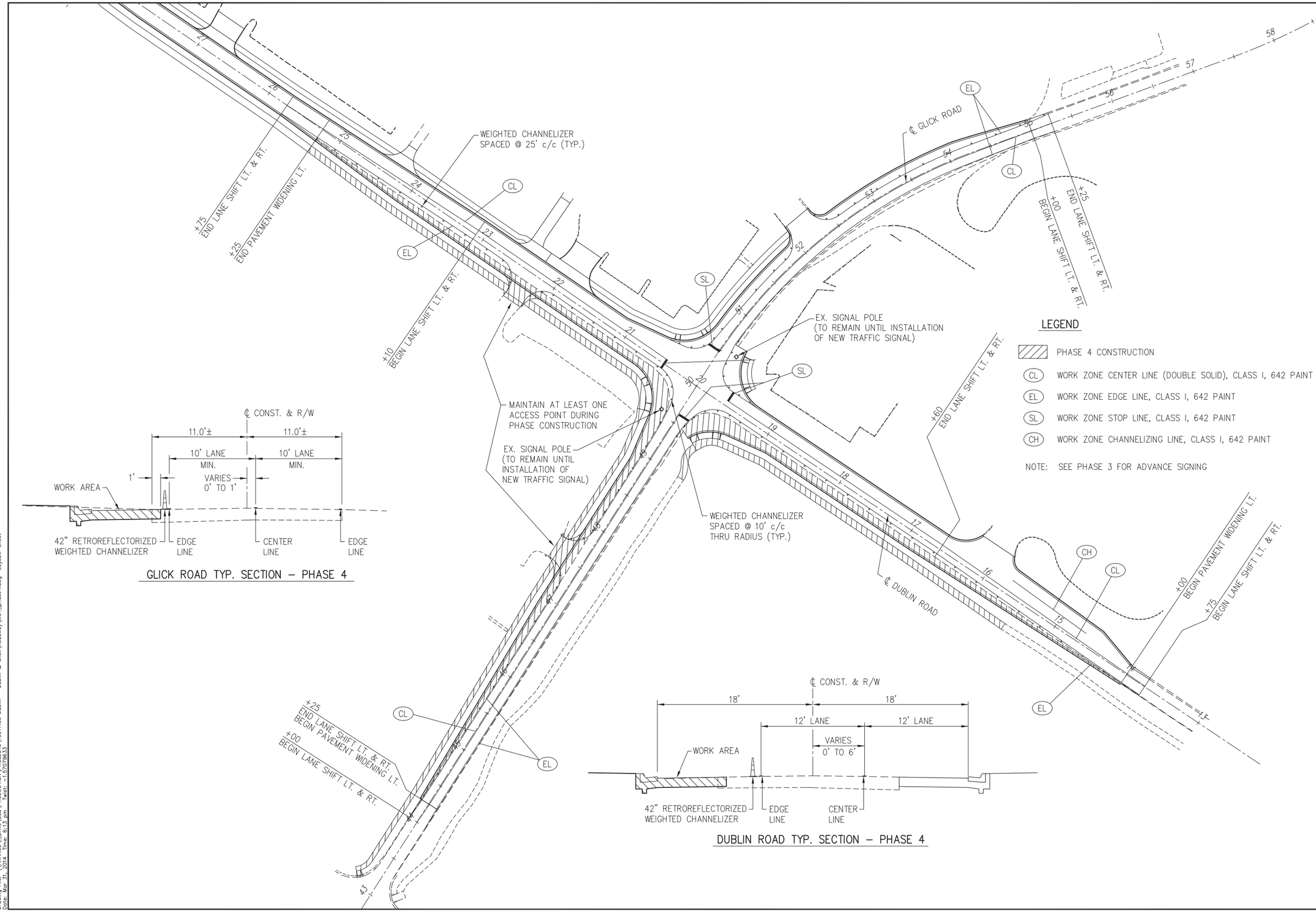

HORIZONTAL SCALE IN FEET
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CALCULATED LAM
CHECKED KJG

MAINTENANCE OF TRAFFIC - PHASE 4

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

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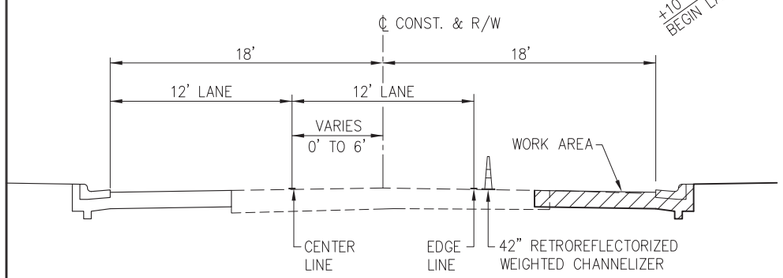
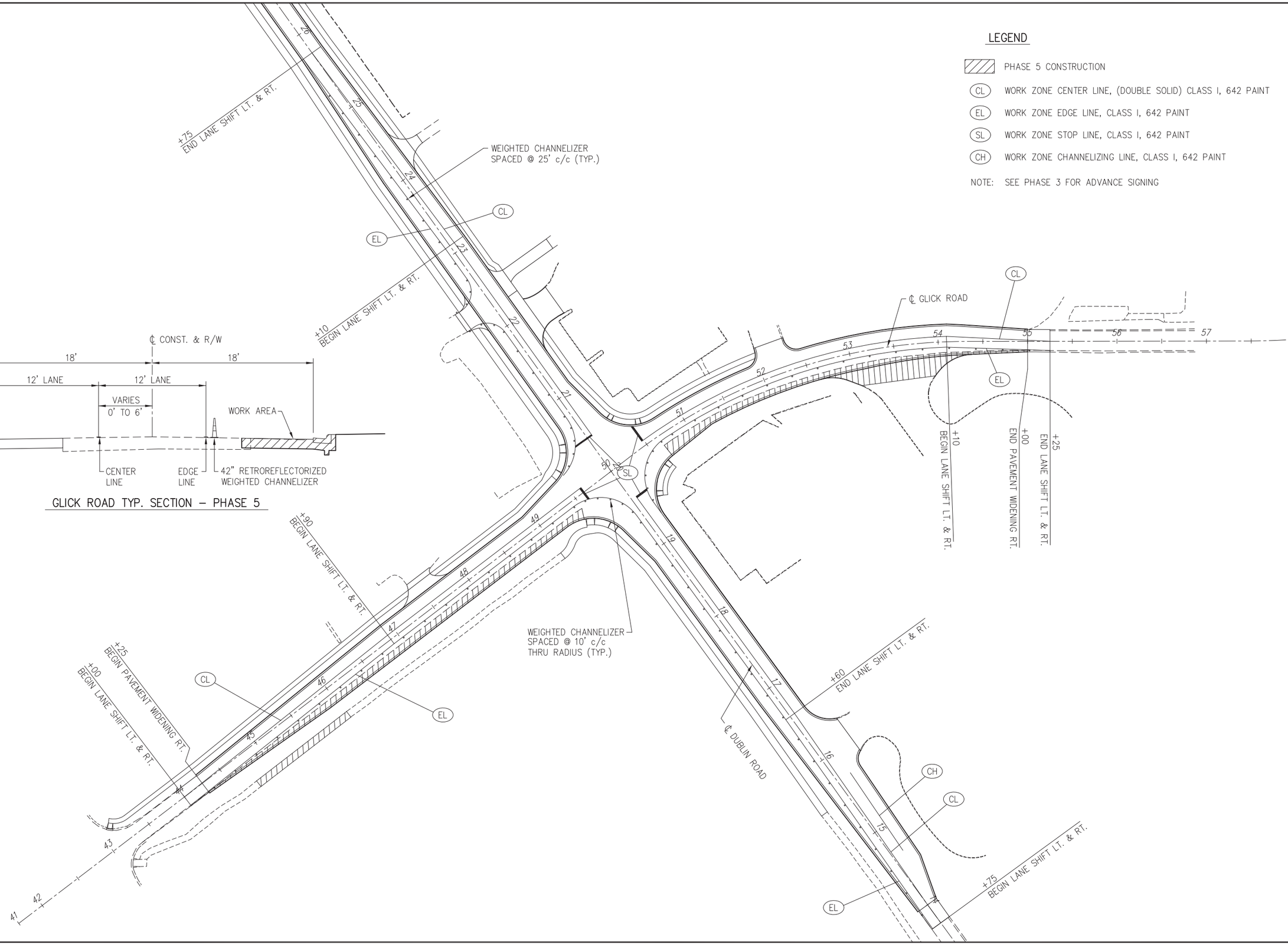
LEGEND

- PHASE 5 CONSTRUCTION
- (CL) WORK ZONE CENTER LINE, (DOUBLE SOLID) CLASS I, 642 PAINT
- (EL) WORK ZONE EDGE LINE, CLASS I, 642 PAINT
- (SL) WORK ZONE STOP LINE, CLASS I, 642 PAINT
- (CH) WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT

NOTE: SEE PHASE 3 FOR ADVANCE SIGNING



GLICK ROAD TYP. SECTION – PHASE 5



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HORIZONTAL SCALE IN FEET 0 25 50 100

CALCULATED LAM
CHECKED KJG

MAINTENANCE OF TRAFFIC - PHASE 5

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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ITEM	DESCRIPTION	TOTAL	UNIT
	GENERAL		
614	MAINTAINING TRAFFIC	1	LUMP
614	LOCAL DETOUR SIGNING	1	LUMP
623	CONSTRUCTION LAYOUT STAKES	1	LUMP
624	MOBILIZATION	1	LUMP
	ROADWAY		
201	CLEARING AND GRUBBING	1	LUMP
201	TREE REMOVED, 18" SIZE	14	EACH
201	TREE REMOVED, 30" SIZE	3	EACH
202	PIPE REMOVED AND DISPOSED OF	416	LF
202	HEADWALL REMOVED AND DISPOSED OF	3	EACH
202	PAVEMENT REMOVED AND DISPOSED OF	156	SY
202	WALK REMOVED AND DISPOSED OF	5045	SF
202	CURB REMOVED AND DISPOSED OF	170	LF
202	CURB AND GUTTER REMOVED AND DISPOSED OF	83	LF
202	GUARDRAIL REMOVED AND DISPOSED OF	125	LF
202	TIMBER GUARDRAIL REMOVED AND DISPOSED OF	19	LF
202	CATCH BASIN REMOVED AND DISPOSED OF	4	EACH
202	MANHOLE REMOVED AND DISPOSED OF	1	EACH
202	FENCE REMOVED AND DISPOSED OF	383	LF
202	ROCK CHANNEL PROTECTION REMOVED AND DISPOSED OF	9	CY
203	EXCAVATION	3175	CY
203	EMBANKMENT	1689	CY
204	SUBGRADE COMPACTION (ROADWAY)	5305	SY
204	SUBGRADE COMPACTION (SUP)	1525	SY
204	SUBGRADE COMPACTION (DRIVEWAYS)	890	SY
204	EXCAVATION OF SUBGRADE	2000	CY
204	GRANULAR EMBANKMENT, NO. 2 STONE	1500	CY
204	GRANULAR EMBANKMENT, NO. 304 STONE	500	CY
604	MONUMENT ASSEMBLY	7	EACH
607	WOOD BOARD FENCE, AS PER PLAN	382	LF
608	4" CONCRETE WALK, AS PER PLAN	8497	SF
608	CURB RAMP, AS PER PLAN	13	EACH
608	DETECTABLE WARNING, 2' x 5', AS PER PLAN	5	EACH
608	DETECTABLE WARNING, 2' x 6', AS PER PLAN	4	EACH
608	DETECTABLE WARNING, 2' x 8', AS PER PLAN	4	EACH
625	LIGHT POLE ADJUSTED TO GRADE, AS PER PLAN	1	EACH
653	TOPSOIL FURNISHED AND PLACED, AS PER PLAN	550	CY
SPECIAL	MAILBOX REMOVED AND RESET	3	EACH
SPECIAL	WOOD BARRIER RAIL RELOCATED	298	LF
SPECIAL	PORTION OF MODULAR BLOCK WALL REMOVED AND DISPOSED OF	7	LF
SPECIAL	STONE SIGN RELOCATED	1	EACH
SPECIAL	RELOCATION OF BUSINESS SIGN	1	EACH
SPECIAL	REMOVAL OF BUSINESS SIGN AND DISPOSAL	2	EACH
SPECIAL	STONE WALL REMOVED AND DISPOSED OF	35	LF
SPECIAL	PROOF SURVEY	1	LUMP

ITEM	DESCRIPTION	TOTAL	UNIT
	EROSION CONTROL		
207	PERIMETER FILTER FABRIC FENCE	2700	LF
207	INLET PROTECTION	27	EACH
601	TIED CONCRETE BLOCK MAT, TYPE 1	42	SY
601	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER	4	CY
601	ROCK CHANNEL PROTECTION, REMOVED AND RELOCATED, AS PER PLAN	7	CY
659	SEEDING AND MULCHING, AS PER PLAN	6585	SY
659	COMMERCIAL FERTILIZER	0.89	TON
659	WATER	36	MGAL
SPECIAL	TREE PROTECTION FENCE	300	LF
	DRAINAGE		
603	4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	401	LF
604	MANHOLE, TYPE C (AA-S102)	9	EACH
604	STANDARD CURB AND GUTTER INLET (AA-S125A) WITH BIKE SAFE GRATE	11	EACH
604	DOUBLE CURB AND GUTTER INLET (AA-S125B) WITH BIKE SAFE GRATE	6	EACH
604	STANDARD CATCH BASIN (AA-S133A) WITH BIKE SAFE GRATE	4	EACH
604	STANDARD CATCH BASIN (AA-S133B) WITH BIKE SAFE GRATE	1	EACH
604	CATCH BASIN RECONSTRUCTED TO GRADE WITH BIKE SAFE GRATE	1	EACH
604	12" ADS YARD DRAIN	1	EACH
605	4" PIPE UNDERDRAINS (720.12)	8015	LF
611*	MANHOLE, NO. 3 WITH 84" BASE I.D. AND 6" WEIR	2	EACH
895*	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 1	2	EACH
901	12" PIPE, WITH TYPE 1 BEDDING, WITH ITEM 911 COMPACTED BACKFILL, 706.02	95	LF
901	12" PIPE, WITH TYPE 1 BEDDING, WITH ITEM 912 COMPACTED	891	LF
	GRANULAR MATERIAL, 706.02		
901	15" PIPE, WITH TYPE 1 BEDDING, WITH ITEM 911 COMPACTED BACKFILL, 706.02	88	LF
901	15" PIPE, WITH TYPE 1 BEDDING, WITH ITEM 912 COMPACTED	23	LF
	GRANULAR MATERIAL, 706.02		
901	24" PIPE, WITH TYPE 1 BEDDING, WITH ITEM 911 COMPACTED BACKFILL	41	LF
901	24" PIPE, WITH TYPE 1 BEDDING, WITH ITEM 912 COMPACTED	13	LF
	GRANULAR MATERIAL		
901	36" PIPE, WITH TYPE 1 BEDDING, WITH ITEM 912 COMPACTED	23	LF
	GRANULAR MATERIAL		
SPECIAL	12" ADS FLARED END SECTION WITH DISSIMILAR COUPLER	1	EACH
SPECIAL	36" CONCRETE FLARED END SECTION	1	EACH

ITEM	DESCRIPTION	TOTAL	UNIT
	PAVEMENT		
254	PAVEMENT PLANING, ASPHALT CONCRETE	7115	SY
301	ASPHALT CONCRETE BASE, PG64-22 (ROADWAY)	1420	TON
301	ASPHALT CONCRETE BASE, PG64-22 (SUP)	229	TON
304	AGGREGATE BASE (ROADWAY)	971	CY
304	AGGREGATE BASE (SUP)	254	CY
304	AGGREGATE BASE (DRIVEWAYS)	180	CY
407	NTSS - 1HM TRACKLESS TACK COAT	1074	GAL
407	TACK COAT FOR INTERMEDIATE COURSE	23	GAL
407	EMULSIFIED ASPHALT TACK COAT, SS-1	233	GAL
448	ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2	1370	TON
	(MEDIUM TRAFFIC), PG64-22 (ROADWAY)		
448	ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2	55	TON
	(MEDIUM TRAFFIC), PG64-22 (DRIVEWAYS)		
448	ASPHALT CONCRETE, SURFACE COURSE, TYPE 1	695	TON
	(MEDIUM TRAFFIC), PG64-22 (ROADWAY)		
448	ASPHALT CONCRETE, SURFACE COURSE, TYPE 1	104	TON
	(MEDIUM TRAFFIC), PG64-22 (SUP)		
448	ASPHALT CONCRETE, SURFACE COURSE, TYPE 1	39	TON
	(MEDIUM TRAFFIC), PG64-22 (DRIVEWAYS)		
452	8" NON-REINFORCED CONCRETE PAVEMENT	323	SY
609	6" CONCRETE COMBINATION CURB AND GUTTER, AS PER PLAN	4702	LF
609	STRAIGHT 18" CONCRETE CURB	180	LF
SPECIAL	PAVEMENT JOINT MESH REINFORCEMENT	2331	SY
	WATER		
801	6 INCH WATER PIPE AND FITTINGS	10	LF
802	6 INCH VALVE AND APPURTENANCES	1	EACH
807	VALVE BOXES ADJUSTED TO GRADE	10	EACH
807	COLUMBUS STANDARD HEAVY DUTY VALVE BOX	6	EACH
809	FIRE HYDRANT, RELOCATED, AS PER PLAN	2	EACH
SPECIAL	SURVEY COORDINATES	1	LUMP
	SANITARY		
604	MANHOLE ADJUSTED TO GRADE	1	EACH
611*	8" CONDUIT, TYPE B, 748.02, SANITARY FORCE MAIN	300	LF

* DENOTES OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (2013 EDITION). ALL OTHER ITEMS REFERENCE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

CALCULATED LMO
CHECKED KJG

GENERAL SUMMARY

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

ITEM	DESCRIPTION	TOTAL	UNIT
	TRAFFIC CONTROL		
630 * +	GROUND MOUNTED SUPPORT, NO. 3 POST, TYPE S, AS PER PLAN	168.2	LF
630 * +	GROUND MOUNTED SUPPORT, ANCHOR POST, 2 1/4" SQUARE, AS PER PLAN	19	EACH
630 * +	SIGN POST REFLECTOR	2	EACH
630 * +	SIGN, FLAT SHEET	104.5	SF
630 * +	STREET NAME SIGN SUPPORT, NO. 3 POST	27.0	LF
630 *	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE, AS PER PLAN	18	EACH
630 *	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	6	EACH
630 *	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	15	EACH
630 *	REMOVAL OF GROUND MOUNTED ANCHOR POST SUPPORT AND DISPOSAL	1	EACH
630 *	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	3	EACH
SPECIAL *	REMOVAL OF STREET NAME SIGN POST AND REERECTION	1	EACH
644 *	CENTER LINE, 4"	0.69	MILE
644 *	CHANNELIZING LINE, 12"	1045	LF
644 *	STOP LINE, 24"	108	LF
644 *	CROSSWALK LINE, 12"	442	LF
644 *	TRANSVERSE/DIAGONAL LINE, 24"	395	LF
644 *	LANE ARROW, 72"	18	EACH

ITEM	DESCRIPTION	TOTAL	UNIT
	TRAFFIC SIGNAL		
625 *	CONNECTOR KIT, TYPE II	4	EACH
625 *	CONNECTOR KIT, TYPE III	8	EACH
625 *	NO. 10 AWG POLE AND BRACKET CABLE	312	LF
625 *	CONDUIT, 2", 725.05	2372	LF
625 *	CONDUIT, 3", 725.05	1195	LF
625 *	CONDUIT, 6", 725.05, AS PER PLAN	630	LF
625 *	TRENCH, AS PER PLAN	2137	LF
625 *	PULL BOX, 725.08, 18", AS PER PLAN	7	EACH
625 *	PULL BOX, 725.08, 24", AS PER PLAN	4	EACH
625 *	PULL BOX, 725.08, 36", AS PER PLAN	8	EACH
625 *	GROUND ROD, AS PER PLAN	9	EACH
625 *	PLASTIC CAUTION TAPE, AS PER PLAN	2137	LF
625 *	LUMINAIRE, MISC. 80 WATT LED, TYPE II MEDIUM, AS PER PLAN	4	EACH
632 *	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, AS PER PLAN	8	EACH
632 *	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, AS PER PLAN	4	EACH
632 *	PEDESTRIAN SIGNAL HEAD, (LED), (COUNTDOWN), TYPE D2, AS PER PLAN	8	EACH
632 *	COVERING OF VEHICULAR SIGNAL HEAD	12	EACH
632 *	COVERING OF PEDESTRIAN SIGNAL HEAD	8	EACH
632 *	DETECTOR LOOP, AS PER PLAN	12	EACH
632 *	SIGNAL CABLE, 3 CONDUCTOR, NO. 10 AWG	927	LF
632 *	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	2725	LF
632 *	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	2052	LF
632 *	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	4	EACH
632	PEDESTAL FOUNDATION	4	EACH
632 *	LOOP DETECTOR LEAD-IN CABLE, 2 CONDUCTOR, NO. 14 AWG	5333	LF
632 *	POWER CABLE, 3 CONDUCTOR, NO. 10 AWG	295	LF
632 *	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	737	LF
632 *	POWER SERVICE, AS PER PLAN	1	EACH
632 *	COMBINATION SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, WITH MAST ARMS, 27', AS PER PLAN	1	EACH
632 *	COMBINATION SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, WITH MAST ARMS, 30', AS PER PLAN	2	EACH
632 *	COMBINATION SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, WITH MAST ARMS, 31', AS PER PLAN	1	EACH
632 *	PEDESTRIAN PEDESTAL, 18', AS PER PLAN	4	EACH
632 *	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	1	EACH
633 *	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN	1	EACH
633 *	CABINET FOUNDATION, AS PER PLAN	1	EACH
633 *	CONTROLLER WORK PAD, AS PER PLAN	1	EACH
633 *	CONTROLLER ITEM, MISC.: PEDESTRIAN SIGNAL SYSTEM	1	EACH
SPECIAL *	SLIM INTERNALLY ILLUMINATED LED STREET NAME SIGN, SINGLE FACED	4	EACH
SPECIAL *	IN CABINET SERIAL COMMUNICATION LINK	1	EACH
	MAINTENANCE OF TRAFFIC		
614 *	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	20	SIGN MNTH
614 *	LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN	80	HOURS
616 *	WATER	20	M GAL

* DENOTES OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (2013 EDITION). ALL OTHER ITEMS REFERENCE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

+ ITEM TO BE FURNISHED AND INSTALLED BY THE CITY OF DUBLIN.

CALCULATED LMO
CHECKED KJG

GENERAL SUMMARY

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

GENERAL NOTES

1. A DETAILED TEMPORARY AND PERMANENT EROSION CONTROL PLAN MUST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL BEFORE CONSTRUCTION IF ONE IS NOT INCLUDED IN THE PLANS. THE DESIGN OF EROSION CONTROL SYSTEMS SHALL FOLLOW THE REQUIREMENTS OF OHIO EPA, ITEM 207 OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) STANDARD SPECIFICATIONS, AND THE CITY ENGINEER. THE CONTRACTOR SHALL BE CONSIDERED THE DEVELOPER OF THE STORMWATER DISCHARGE.

2. THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT ALL POINTS WHERE WATER LEAVES THE PROJECT, INCLUDING WATERWAYS, OVERLAND SHEET FLOW, AND STORM SEWERS, WHETHER SPECIFICALLY SHOWN ON THE PLANS OR NOT.

3. ACCEPTED METHODS OF PROVIDING EROSION/SEDIMENT CONTROL INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT FILTERS, SILT FILTER FENCE, ROCK CHECK DAMS, AND TEMPORARY GROUND COVER.

4. THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE OF THE WORK AREA AT ALL TIMES CONSISTENT WITH EROSION CONTROL PRACTICES.

5. DISTURBED AREAS THAT WILL REMAIN UNWORKED FOR 45 DAYS OR MORE SHALL BE SEEDED WITHIN 7 CALENDAR DAYS OF THE DISTURBANCE. OTHER SEDIMENT CONTROLS THAT ARE INSTALLED SHALL BE MAINTAINED UNTIL VEGETATIVE GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE GROWTH OF PERMANENT GROUND COVER.

6. ALL DENUDED AREAS, INCLUDING STOCKPILED TOPSOIL AND EXCAVATED MATERIAL, ARE TO BE PROTECTED THROUGH THE USE OF TEMPORARY SEEDING, OR COVERED WITH ANCHORED STRAW MULCH.

7. FINAL GRADING WILL BE CONSISTENT WITH PRECONSTRUCTION TOPOGRAPHY TO MAINTAIN DRAINAGE AND AESTHETICS.

8. REMOVE ONLY THE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED TO PERMIT ACTUAL CONSTRUCTION. PROTECT THE REMAINING TO PRESERVE THEIR AESTHETIC AND EROSION CONTROL VALUE.

9. BACKFILL TRENCHES IMMEDIATELY AFTER USE. SEED AND MULCH TRENCH AREA WITHIN 2 WEEKS AFTER AREA OR SECTION HAS BEEN OPENED.

10. SETTLING FACILITIES, SEDIMENT FILTERS, PERIMETER CONTROLS, AND OTHER PRACTICES INTENDED TO TRAP SEDIMENT SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING OR CONSTRUCTION AND WITHIN 7 DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS RESTABILIZED.

11. STORM SEWER INLET PROTECTION – ALL STORM SEWER INLETS WHICH ACCEPT WATER RUNOFF FROM THE PROJECT AREA SHALL BE PROTECTED SO THAT SEDIMENT–LADEN WATER WILL NOT ENTER THE STORM SEWER SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT, UNLESS THE STORM SEWER SYSTEM DRAINS TO A SETTLING FACILITY. THESE CONTROLS SHALL BE SELECTED AND LOCATED AS INDICATED IN THE PLANS AND AS DIRECTED BY THE CITY ENGINEER.

12. WORKING IN OR CROSSING STREAMS – STREAMS INCLUDING BED AND BANKS SHALL BE RESTABILIZED IMMEDIATELY AFTER IN–CHANNEL WORK IS COMPLETED, INTERRUPTED, OR STOPPED. TO THE EXTENT PRACTICABLE, CONSTRUCTION VEHICLES SHALL BE KEPT OUT OF STREAMS. WHERE IN–CHANNEL WORK IS NECESSARY, PRECAUTIONS SHALL BE TAKEN TO STABILIZE THE WORK AREA DURING CONSTRUCTION TO MINIMIZE EROSION. WHERE A STREAM MUST BE CROSSED BY CONSTRUCTION VEHICLES REGULARLY DURING CONSTRUCTION, A TEMPORARY CULVERT SHALL BE PROVIDED.

13. CONSTRUCTION ACCESS ROUTES – MEASURES SHALL BE TAKEN TO PREVENT SOIL TRANSPORT ONTO SURFACES WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, OR ONTO PUBLIC ROADS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT OFF–SITE TRACKING OF SEDIMENTS BY VEHICLES AND EQUIPMENT IS ELIMINATED.

14. SLOUGHING AND DUMPING – NO SOIL, ROCK, DEBRIS, OR ANY OTHER MATERIAL SHALL BE DUMPED OR PLACED INTO A WATER RESOURCE OR INTO SUCH PROXIMITY THAT IT MAY READILY SLOUGH, SLIP, OR ERODE INTO A WATER RESOURCE UNLESS SUCH DUMPING OR PLACING IS AUTHORIZED BY THE CITY ENGINEER. UNSTABLE SOILS PRONE TO SLIPPING OR LANDSLIDING SHALL NOT BE GRADED, EXCAVATED, FILLED, OR HAVE LOADS IMPOSED UPON THEM UNLESS THE WORK IS DONE IN ACCORDANCE WITH A QUALIFIED PROFESSIONAL ENGINEER'S RECOMMENDATIONS TO CORRECT, ELIMINATE, OR ADEQUATELY ADDRESS THE PROBLEMS.

15. MAINTENANCE AND INSPECTION – ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE DESIGNED AND CONSTRUCTED TO MINIMIZE MAINTENANCE REQUIREMENTS. THEY SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. MAINTENANCE AND INSPECTION OF ALL EROSION/SEDIMENT CONTROL DEVICES REQUIRED BY THE CITY ENGINEER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE CITY ENGINEER, ONCE EVERY 7 CALENDAR DAYS AND/OR WITHIN 24 HOURS AFTER A RAIN EVENT OF GREATER THAN 0.5 INCHES IN A 24–HOUR PERIOD. THESE INSPECTIONS SHALL IDENTIFY AREAS CONTRIBUTING TO STORMWATER DISCHARGES ASSOCIATED WITH THE PROJECT; EVALUATE THE ADEQUACY, IMPLEMENTATION, AND MAINTENANCE OF EXISTING AND PROPOSED EROSION/SEDIMENTATION MEASURES; AND DETERMINE WHETHER ADDITIONAL MEASURES ARE REQUIRED. ACCEPTABLE INSPECTION REPORTS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE CITY ENGINEER WITHIN 48 HOURS OF INSPECTION COMPLETION. THE REPORT SHALL CONTAIN THE RESULTS OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN, A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE PLAN, AND IDENTIFYING ANY INCIDENTS OF NONCOMPLIANCE.

16. OUTFLOWS FROM DEWATERING OPERATIONS – ALL WATER PRODUCED FROM CLEANING AND DEWATERING OPERATIONS, WHETHER SPECIFICALLY FROM TRENCH DEWATERING OPERATIONS OR FROM MORE EXTENSIVE DEWATERING OPERATIONS, SHALL BE DISCHARGED IN SUCH A MANNER AS TO ELIMINATE EROSION FROM SUCH DISCHARGE.

17. ADDITIONAL CONTROLS – THE CONTRACTOR SHALL ENSURE THAT NO SEDIMENTS ARE TRACKED OFF–SITE BY CONSTRUCTION EQUIPMENT, VEHICLES, AND WORKERS. THE CONTRACTOR SHALL ALSO ENSURE THAT NO SOLID OR LIQUID WASTE IS DISCHARGED INTO ANY STORMWATER FLOW.

18. TEMPORARY EROSION AND SEDIMENT CONTROL PLAN AVAILABILITY AND UPDATES – THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE THE IMMEDIATE AVAILABILITY OF THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN ON–SITE. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE TO PERFORM ALL UPDATES AND ADJUSTMENTS TO THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN.

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, INLET PROTECTION	27 EACH
ITEM 207, PERIMETER FILTER FABRIC FENCE	2700 FT

PROHIBITED CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL NOT USE CONSTRUCTION PROCEDURES, ACTIVITIES, OR OPERATIONS THAT MAY UNNECESSARILY IMPACT THE NATURAL ENVIRONMENTAL OR THE PUBLIC HEALTH AND SAFETY. PROHIBITED CONSTRUCTION PROCEDURES, ACTIVITIES, OR OPERATIONS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOOD PLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER.

2. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS.

3. PUMPING OF SEDIMENT LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM DRAINS.

4. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE, AND/OR ANY OTHER HARMFUL WASTE, INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN–MADE CHANNELS LEADING THERETO.

5. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOWLINE OF A STREAM.

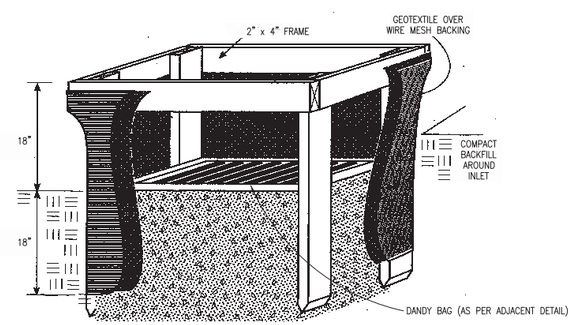
6. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA.

7. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, WETLANDS, OR SURFACE WATERS.

8. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.

9. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY (PUBLIC OR PRIVATE) NOT PREVIOUSLY SPECIFIED BY THE CITY ENGINEER FOR SAID PURPOSES.

EROSION CONTROL DETAILS



1. Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.

2. The earth around the inlet shall be excavated completely to a depth at least 18 in.

3. The wooden frame shall be constructed of 2-by-4-in. construction-grade lumber. The 2-by-4-in. posts shall be driven 1 ft. into the ground at four corners of the inlet and the top portion of 2-by-4-in. frame assembled using the overlap joint shown. The top of the frame shall be at least 6 in. below adjacent roads if ponded water would pose a safety hazard to traffic.

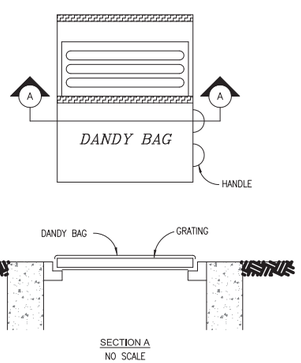
4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.

5. Geotextile shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 in. below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.

6. Backfill shall be placed around the inlet in compacted 6-in. layers until the earth is even with notch elevation on ends and top elevation on sides.

7. A compacted earth dike or a check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression and if runoff bypassing the inlet will not flow to a settling pond. The top of earth dikes shall be at least 6 in. higher than the top of the frame.

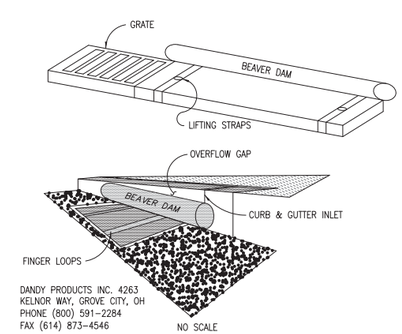
INLET PROTECTION DETAIL
FOR CATCH BASINS



INSTALLATION: STAND GRATE ON END. PLACE DANDY BAG OVER GRATE. FLIP GRATE OVER SO THAT OPEN END IS UP. PULL UP SLACK. TUCK FLAP IN. BE SURE END OF GRATE IS COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT FIT PROPERLY. HOLDING HANDLES, CAREFULLY PLACE DANDY BAG WITH GRATE INSERTED INTO CATCH BASIN FRAME SO THAT RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE.

MAINTENANCE: AFTER SILT HAS DRIED, REMOVE IT FROM THE SURFACE OF DANDY BAG WITH BROOM.

DANDY BAG DETAIL
FOR CATCH BASINS



INSTALLATION: STAND GRATE ON END. SLIDE THE BEAVER DAM BAG ON WITH DAM ON TOP OF GRATE. PULL ALL EXCESS DOWN. LAY UNIT ON ITS SIDE. CAREFULLY TUCK FLAP IN. PRESS VELCRO STRIPS TOGETHER. INSTALL THE UNIT MAKING SURE FRONT EDGE OF GRATE IS INSERTED IN FRAME FIRST THEN LOWER BACK INTO PLACE. PRESS VELCRO DOTS TOGETHER WHICH ARE LOCATED UNDER LIFTING STRAPS. THIS INSURES STRAPS REMAIN FLUSH WITH GUTTER.

MAINTENANCE: WITH A STIFF BRISTLE BROOM SWEEP SILT & OTHER DEBRIS OFF SURFACE AFTER EACH EVENT.

BEAVER DAM DETAIL
FOR CURB & GUTTER INLETS

CALCULATED LMO
CHECKED KJG

EROSION CONTROL NOTES AND DETAILS

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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BMP NARRATIVE

POST-CONSTRUCTION BMP TREATMENT IS PROVIDED BY TWO (2) MANUFACTURED SYSTEMS.

POST-CONSTRUCTION BMP REQUIREMENTS ARE MET BASED ON ODOT LOCATION AND DESIGN MANUAL VOLUME 2, 2013.

BMP CALCULATIONS

REQUIRED TREATMENT:

NEW IMPERVIOUS AREA IN NEW RIGHT-OF-WAY = 0.06 AC.
=> TREAT WATER QUALITY ONLY

NEW IMPERVIOUS AREA (Ain) = 0.06 AC.
EXISTING IMPERVIOUS AREA (Aix) = 2.90 AC.
=> REQUIRED TREATMENT PERCENT (T%) = 22%

EARTH DISTURBED AREA (EDA) = 3.44 AC.

EXEMPT AREAS:
LOCALIZED SUMPS = 0.41 AC.
SHEET FLOW AREAS = 0.52 AC.

REQUIRED TREATMENT:
3.44-0.41-0.52 = 2.51 x 0.22 = 0.55 AC.

PROVIDED TREATMENT:

(33) MANUFACTURED SYSTEM = 0.46 AC.

(34) MANUFACTURED SYSTEM = 0.31 AC.

TOTAL TREATED EDA = 0.77 AC. (30%)

TREATED EARTH DISTURBED AREA > REQUIRED TREATED AREA

MANUFACTURED SYSTEMS

(33) CA = 0.47, i = 0.65
=> WQf = 0.31 CFS

MANUFACTURED WATER QUALITY STRUCTURE, TYPE 1

(34) CA = 0.49, i = 0.65
=> WQf = 0.32 CFS

MANUFACTURED WATER QUALITY STRUCTURE, TYPE 1

(POST-CONSTRUCTION MAINTENANCE OF MANUFACTURED WATER QUALITY STRUCTURES TO BE PROVIDED BY CITY OF DUBLIN)

PROJECT DATA

TOTAL AREA (RIGHT-OF-WAY)	4.20 ACRES
PROJECT EARTH DISTURBED AREA	3.44 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA	3.44 ACRES
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.68
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.75
IMPERVIOUS AREA FOR PRE-CONSTRUCTION	2.13 ACRES
IMPERVIOUS AREA FOR POST-CONSTRUCTION	2.92 ACRES
IMMEDIATE RECEIVING WATERS	NONE
SUBSEQUENT RECEIVING WATERS	SCIOTO RIVER

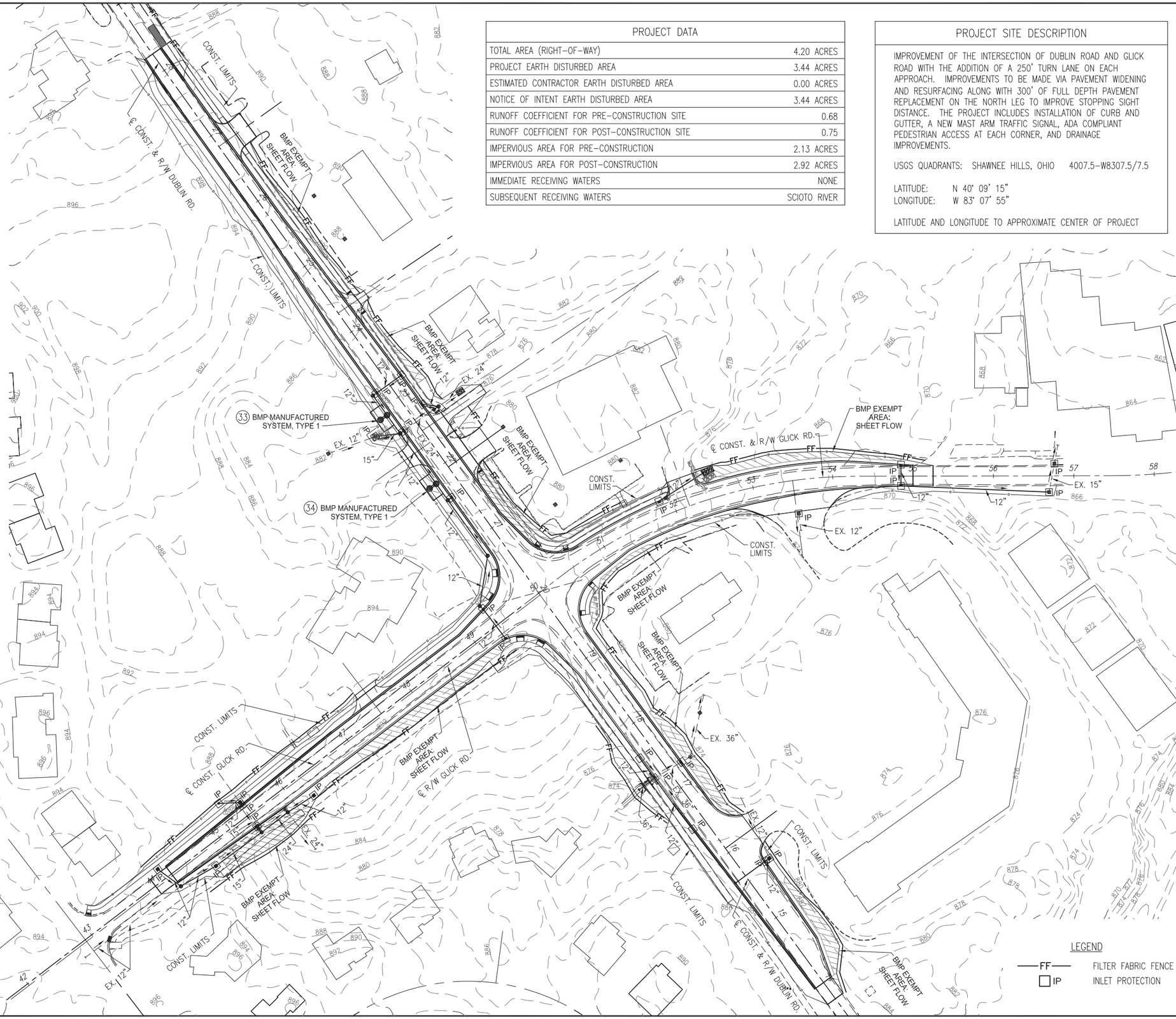
PROJECT SITE DESCRIPTION

IMPROVEMENT OF THE INTERSECTION OF DUBLIN ROAD AND GLICK ROAD WITH THE ADDITION OF A 250' TURN LANE ON EACH APPROACH. IMPROVEMENTS TO BE MADE VIA PAVEMENT WIDENING AND RESURFACING ALONG WITH 300' OF FULL DEPTH PAVEMENT REPLACEMENT ON THE NORTH LEG TO IMPROVE STOPPING SIGHT DISTANCE. THE PROJECT INCLUDES INSTALLATION OF CURB AND GUTTER, A NEW MAST ARM TRAFFIC SIGNAL, ADA COMPLIANT PEDESTRIAN ACCESS AT EACH CORNER, AND DRAINAGE IMPROVEMENTS.

USGS QUADRANTS: SHAWNEE HILLS, OHIO 4007.5-W8307.5/7.5

LATITUDE: N 40° 09' 15"
LONGITUDE: W 83° 07' 55"

LATITUDE AND LONGITUDE TO APPROXIMATE CENTER OF PROJECT



N

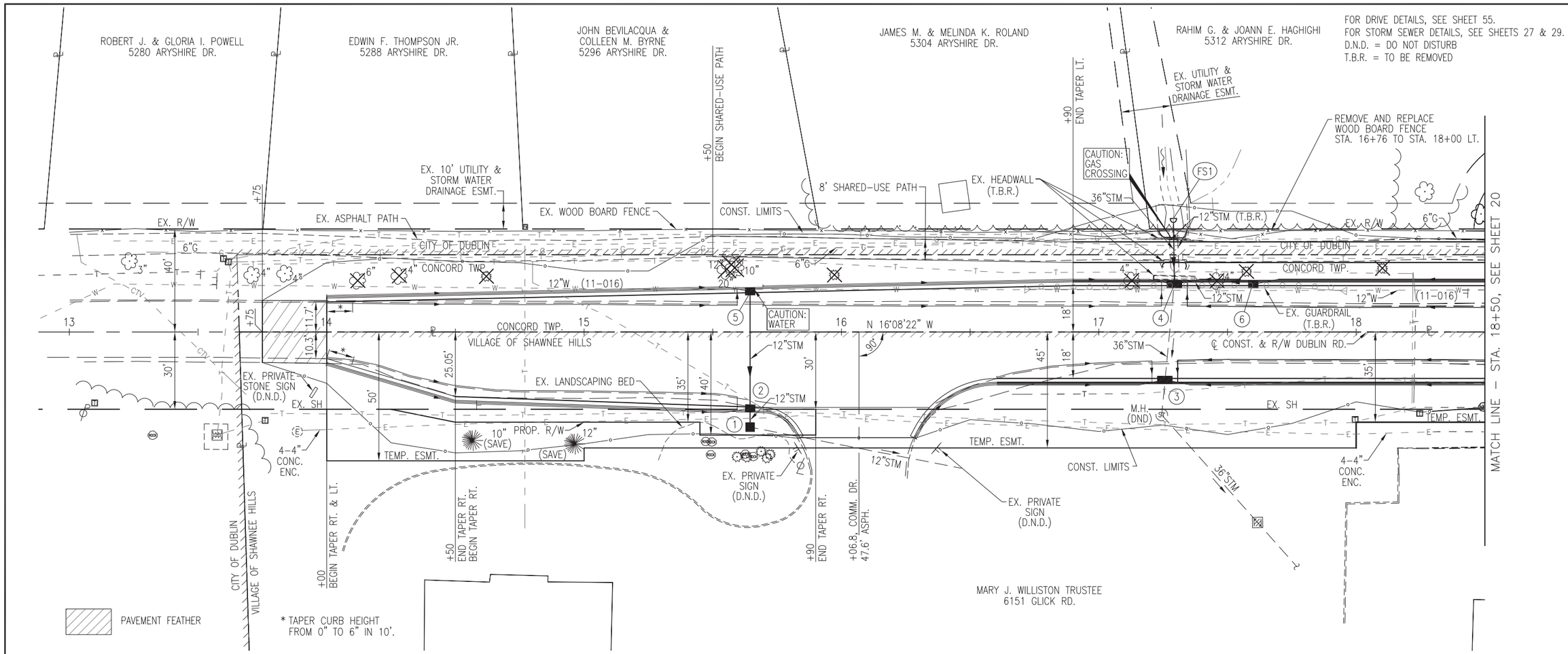
0 30 60 120
HORIZONTAL SCALE IN FEET

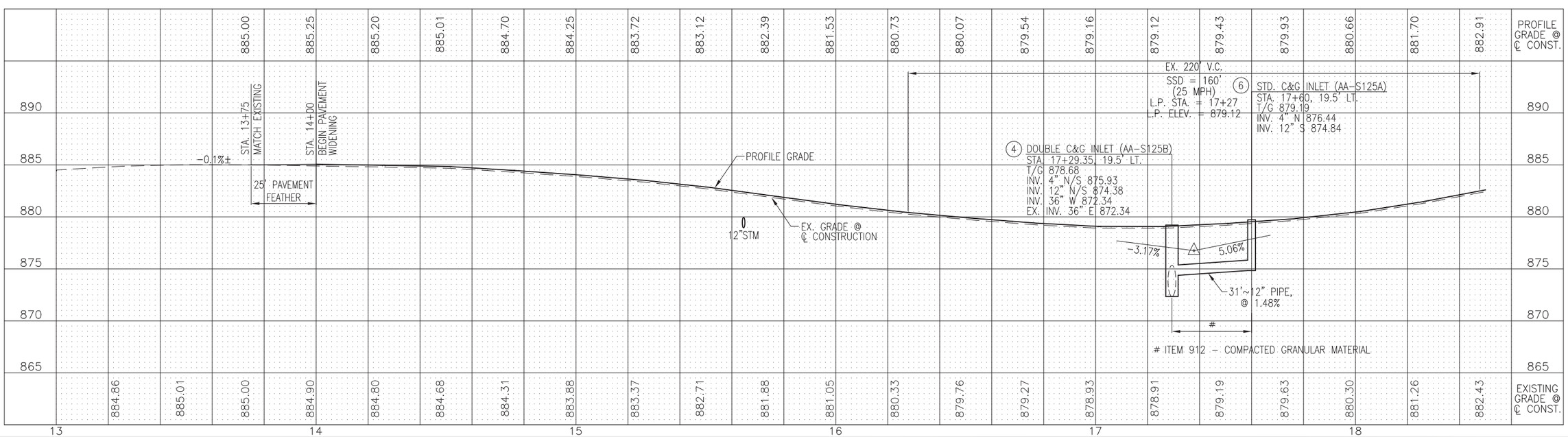
CALCULATED LMO
CHECKED KJG

EROSION CONTROL PLAN

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRNO5\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin Erosion Control.dwg Layout: sheet
Date: Mar 31, 2014 Time: 2:14 pm Twist: -1.5707963.3





HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED LMO
CHECKED KJG

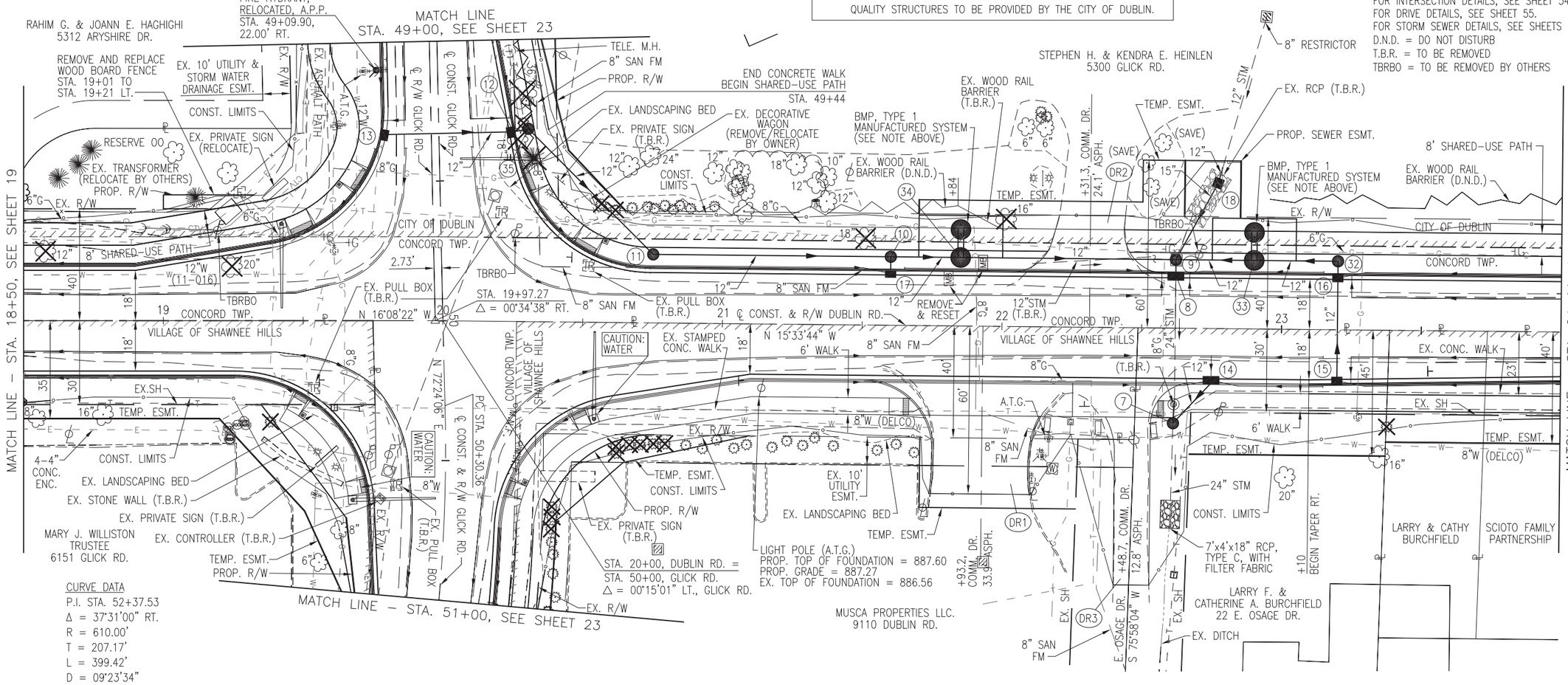
PLAN AND PROFILE - DUBLIN ROAD
STA. 13+00 TO STA. 18+50

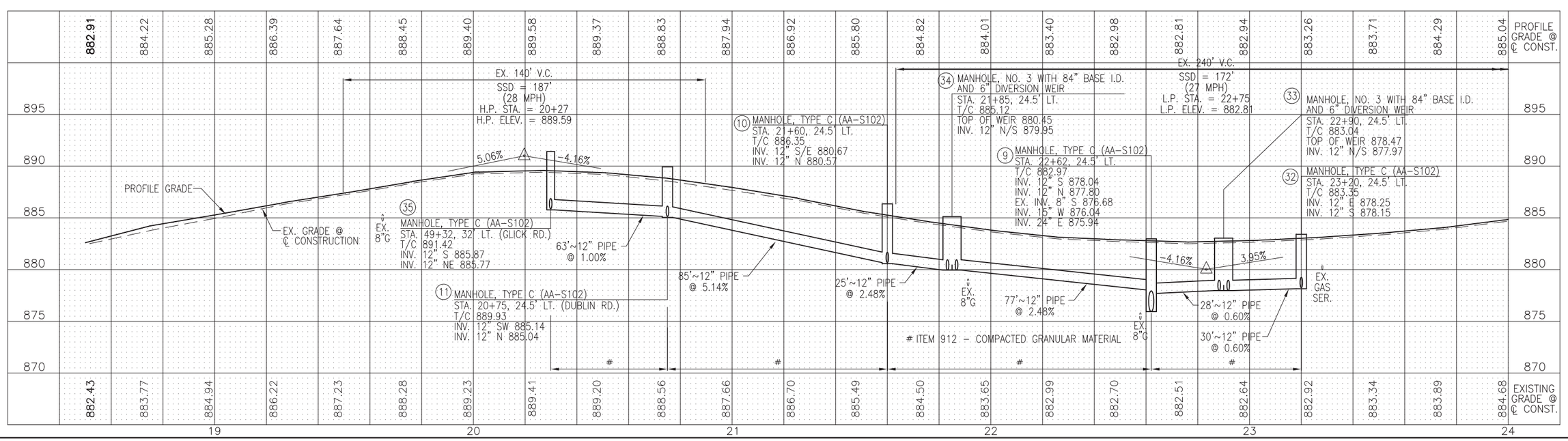
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin P&P.dwg Layout: DUBLIN1
Date: May 05, 2014 Time: 10:38 am Twist: -1.5707963.3

NOTE: POST-CONSTRUCTION BMP MAINTENANCE OF MANUFACTURED WATER QUALITY STRUCTURES TO BE PROVIDED BY THE CITY OF DUBLIN.

FOR INTERSECTION DETAILS, SEE SHEET 54.
FOR DRIVE DETAILS, SEE SHEET 55.
FOR STORM SEWER DETAILS, SEE SHEETS 32,34,35,47.
D.N.D. = DO NOT DISTURB
T.B.R. = TO BE REMOVED
TBRBO = TO BE REMOVED BY OTHERS





HORIZONTAL SCALE IN FEET 0 10 20 40

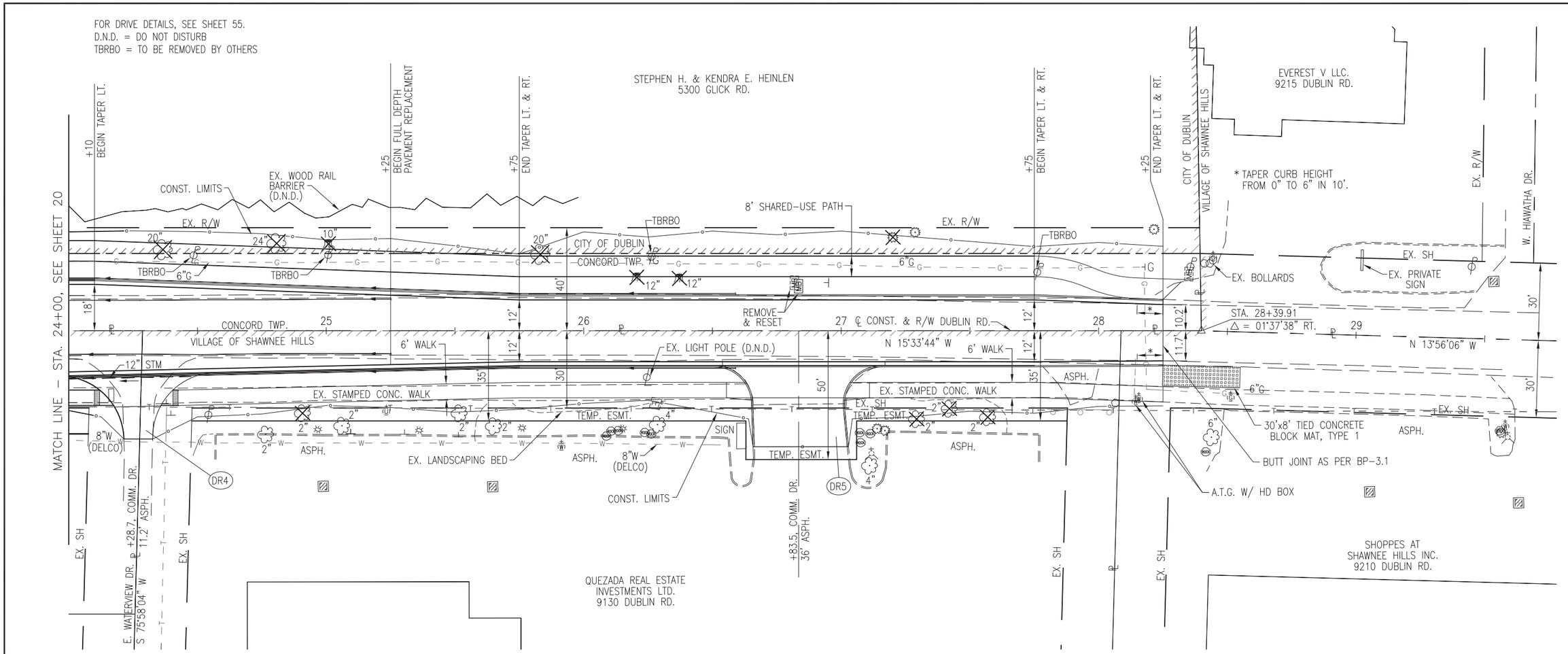
CALCULATED LMO
CHECKED KJG

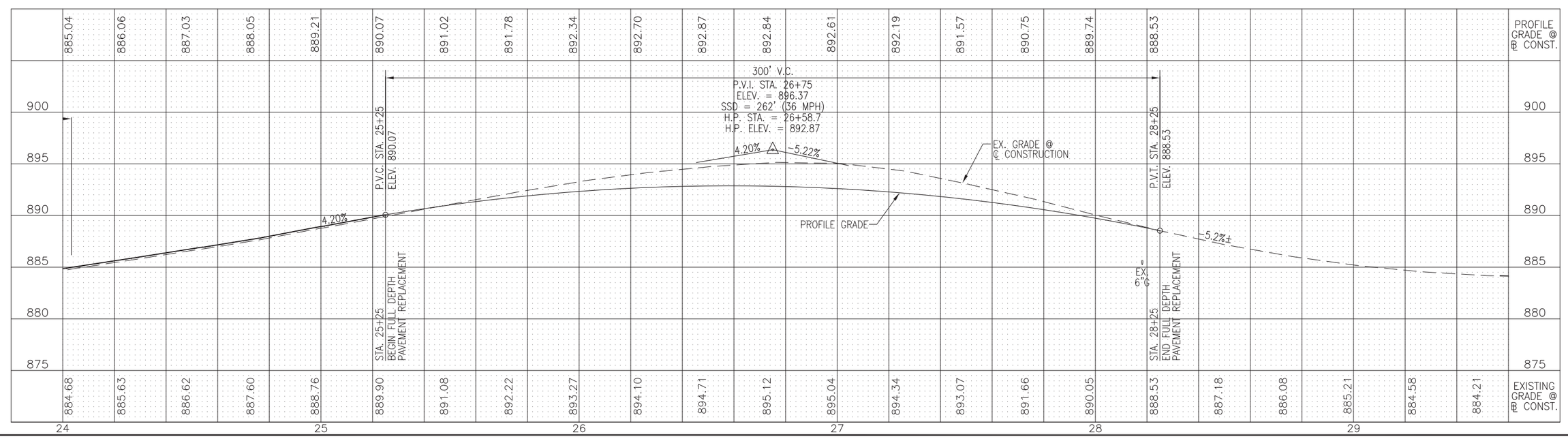
PLAN AND PROFILE - DUBLIN ROAD STA. 18+50 TO STA. 24+00

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\Roadway\Dublin P&P.dwg Layout: DUBLIN2
Date: May 05, 2014 Time: 10:38 am Twist: -1.5707963.33

FOR DRIVE DETAILS, SEE SHEET 55.
D.N.D. = DO NOT DISTURB
TBRBO = TO BE REMOVED BY OTHERS





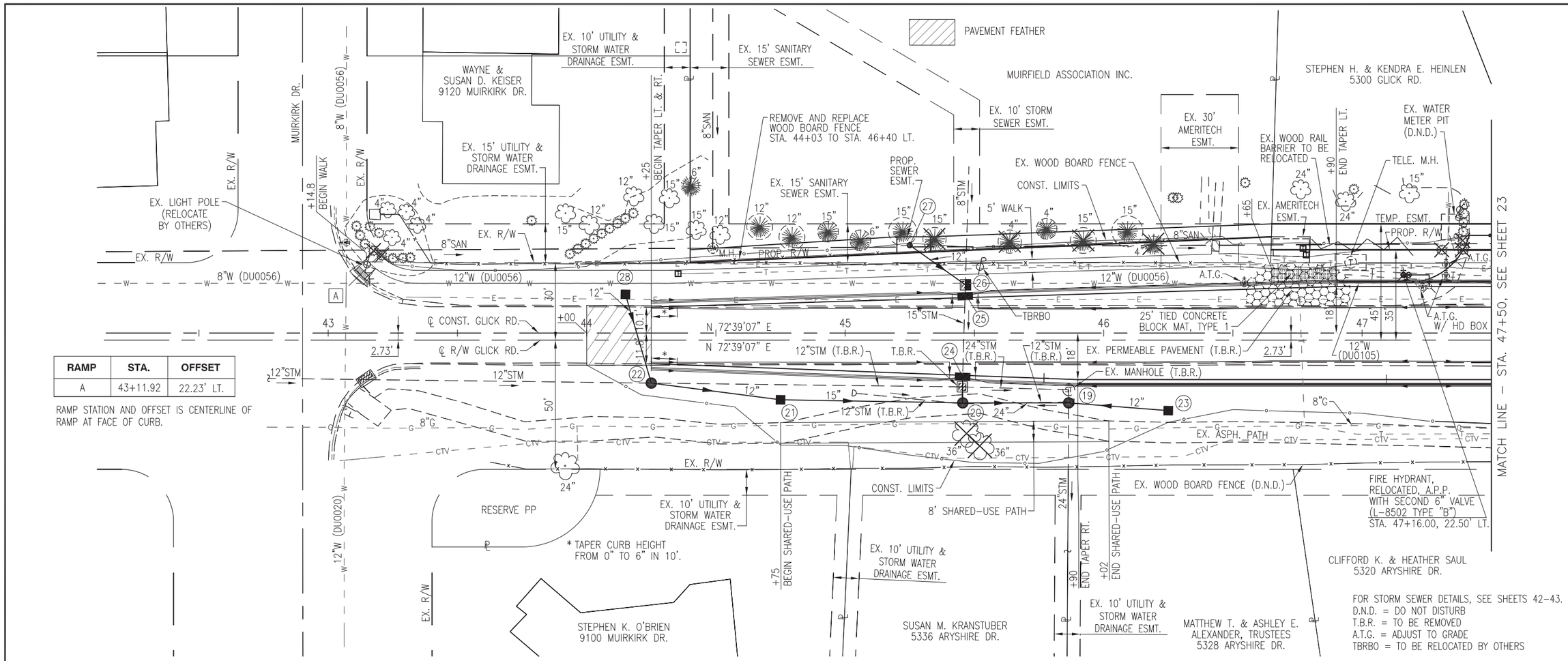
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED LMO
CHECKED KJG

PLAN AND PROFILE - DUBLIN ROAD STA. 24+00 TO STA. 29+50

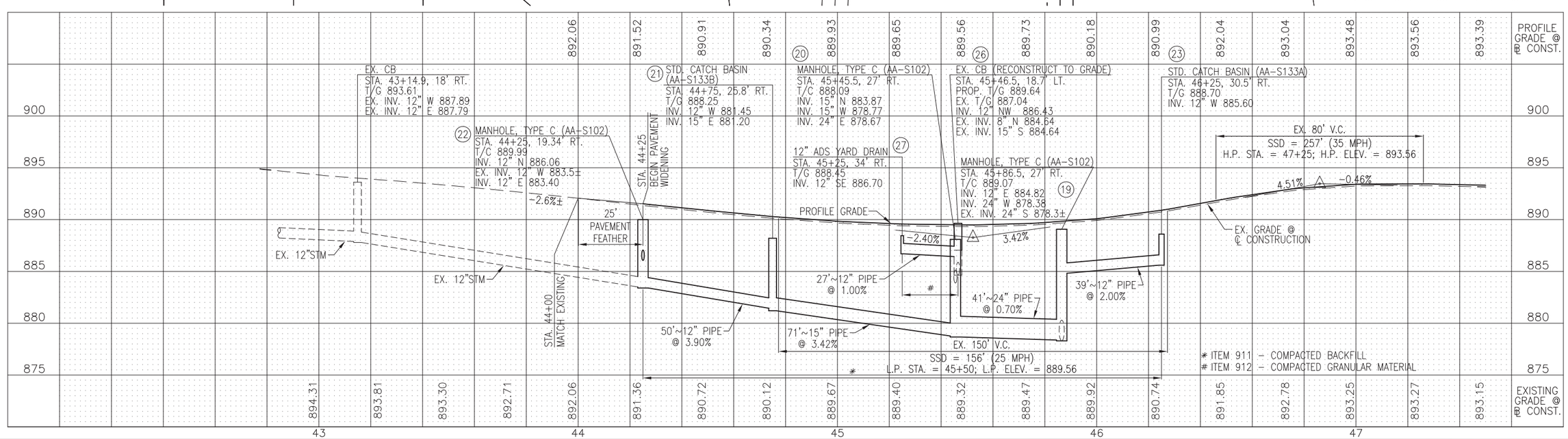
DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin P&P.dwg Layout: DUBLIN3
Date: Apr 10, 2014 Time: 11:08 am Twist: -1.57079633



RAMP	STA.	OFFSET
A	43+11.92	22.23' LT.

RAMP STATION AND OFFSET IS CENTERLINE OF RAMP AT FACE OF CURB.



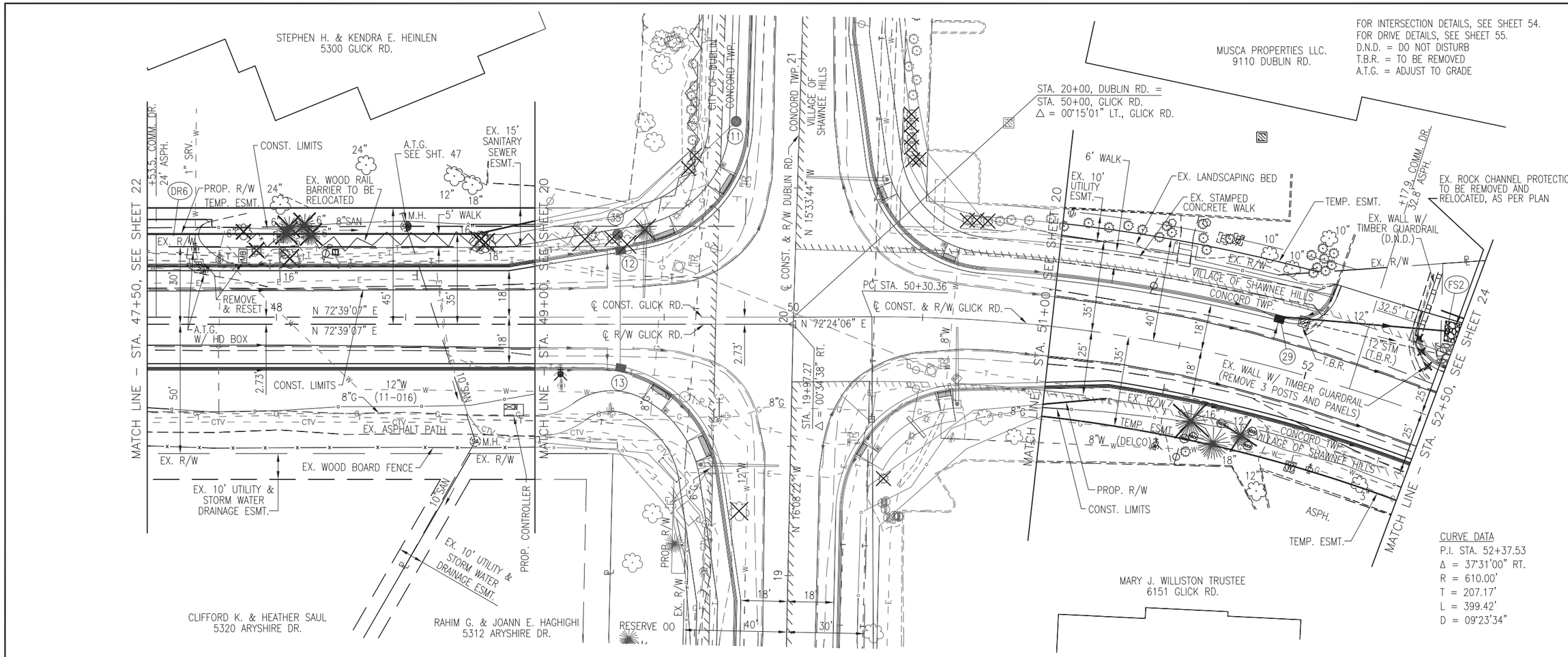
CALCULATED LMO
CHECKED KJG

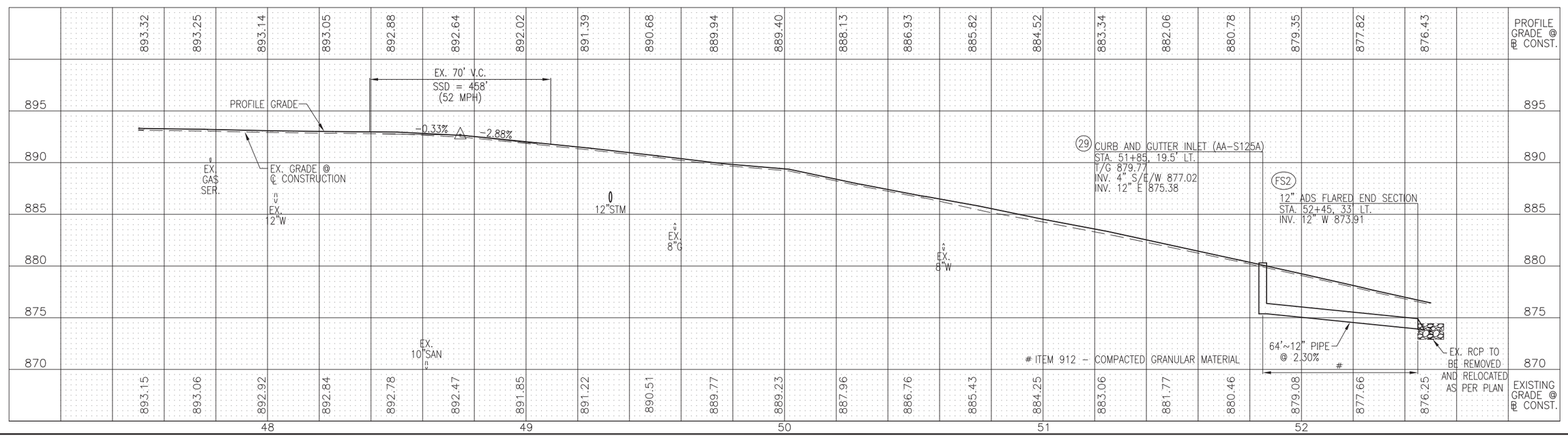
HORIZONTAL SCALE IN FEET 0 10 20 40

PLAN AND PROFILE - GLICK ROAD STA. 42+50 TO STA. 47+50

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\Roadway\Glick P&P.dwg Layout: GLICK1
Date: May 16, 2014 Time: 1:52 pm Twist: -1.57079633





CALCULATED LMO
CHECKED KJG

HORIZONTAL SCALE IN FEET 0 10 20 40

PLAN AND PROFILE - GLICK ROAD
STA. 47+50 TO STA. 52+50

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\Roadway\Glick P&P.dwg Layout: GLICK2
Date: Apr 22, 2014 Time: 2:49 pm Twist: -1.57079633

FOR DRIVE DETAILS, SEE SHEET 55.
FOR STORM SEWER DETAILS, SEE SHEET 52.
D.N.D. = DO NOT DISTURB

MUSCA PROPERTIES LLC.
9110 DUBLIN RD.

SCIOTO FAMILY PARTNERSHIP

LARRY F. &
CATHERINE A. BURCHFIELD
6058 GLICK RD.

+10
BEGIN TAPER LT.

+00
END TAPER LT. & RT.

EX. PRIVATE SIGN

EX. ROCK CHANNEL PROTECTION TO BE REMOVED AND RELOCATED, AS PER PLAN

CONST. LIMITS

TEMP. ESMT.

VILLAGE OF SHAWNEE HILLS

CONCORD TWP.

PROP. R/W

EX. R/W

GRAVEL

ASPH.

EX. RAILROAD TIES

EX. PRIVATE SIGN

12"SAN

MATCH LINE - STA. 52+50, SEE SHEET 23

℄ CONST. & R/W GLICK RD.

S 70°04'54" E

+25

EX. STONE WALL (D.N.D.)

8"G

8"W (DELCO)

CONST. LIMITS

12"SAN

8"W (DELCO)

6"W (DELCO)

CONCORD TWP.

VILLAGE OF SHAWNEE HILLS

NOTIFY AEP AND AT&T 3 WORKING DAYS PRIOR TO STORM SEWER INSTALLATION

TEMP. ESMT.

EX. C.B. (D.N.D.)

DR7

12"STM

+50, COMM. DR.

81.8' ASPH.

EX. PRIVATE SIGN

* TAPER CURB HEIGHT FROM 0" TO 6" IN 10'.

PT STA. 54+29.78

EX. DUMPSTERS

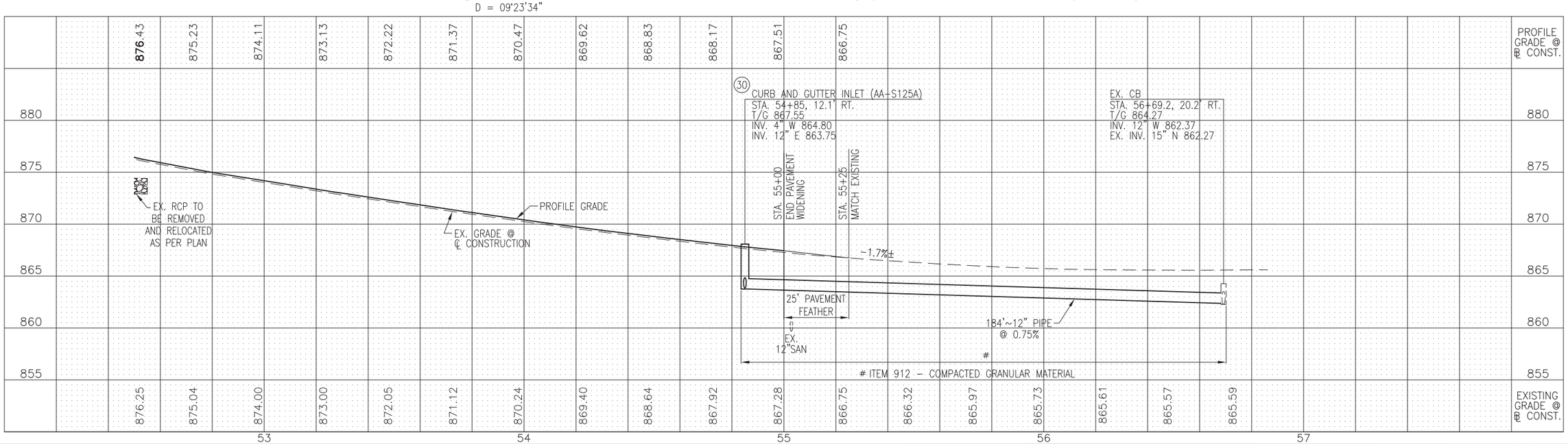
+15
BEGIN TAPER RT.

CURVE DATA
P.I. STA. 52+37.53
Δ = 37°31'00" RT.
R = 610.00'
T = 207.17'
L = 399.42'
D = 09°23'34"

MARY J. WILLISTON
TRUSTEE
6151 GLICK RD.

WINNERS OFFICE PARK CONDO

PAVEMENT FEATHER



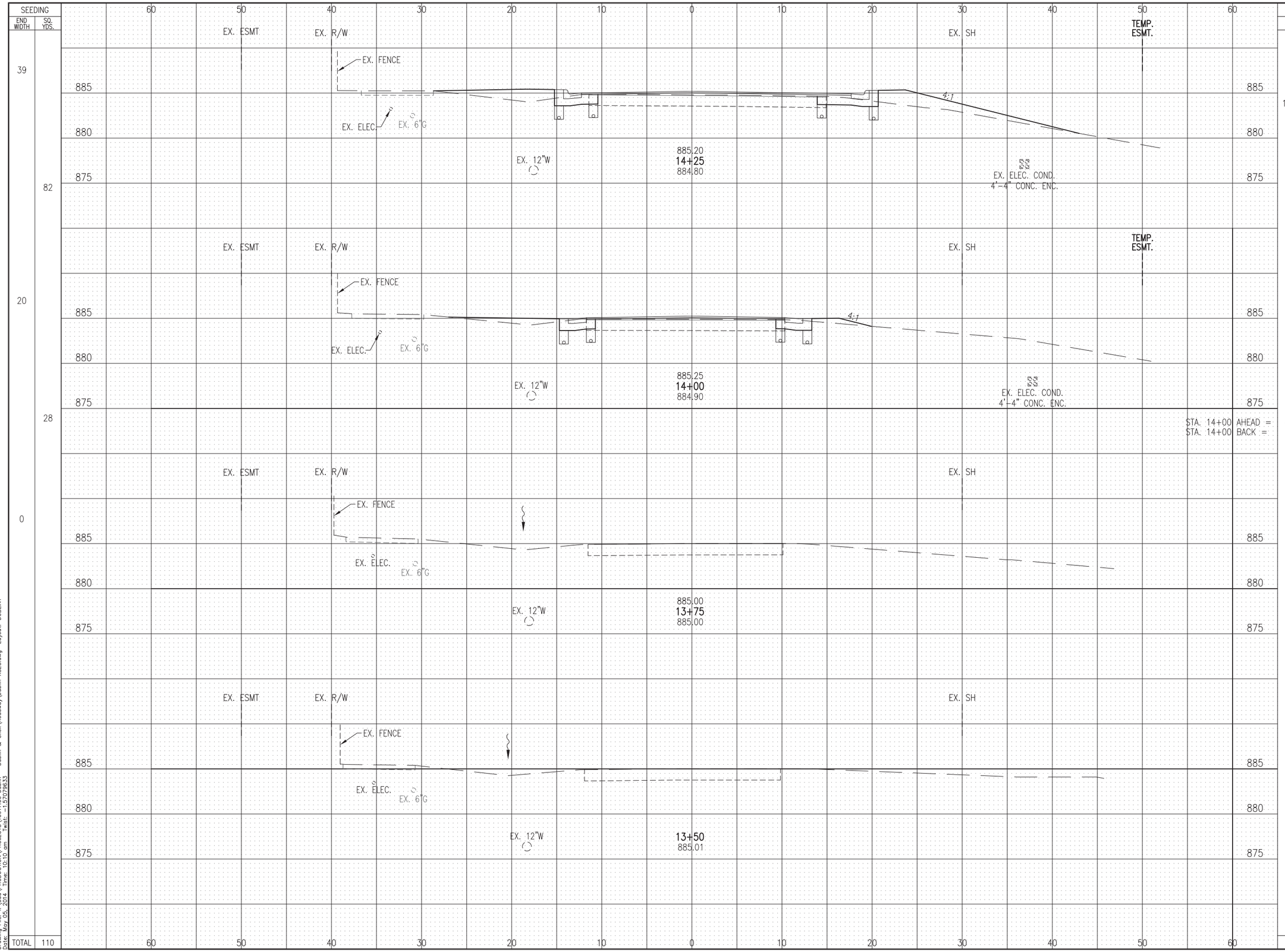
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LMO
CHECKED KJG

PLAN AND PROFILE - GLICK ROAD
STA. 52+50 TO STA. 57+00

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Glick P&P.dwg Layout: GLICK3
Date: Apr 10, 2014 Time: 11:10 am Twist: -1.57079633



SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
39	82	STA. 14+25	10.3	29.4	9	17
20	28	STA. 14+00	8.7	7.5		
0		STA. 13+75	0	0		
TOTAL	110			TOTAL	9	17

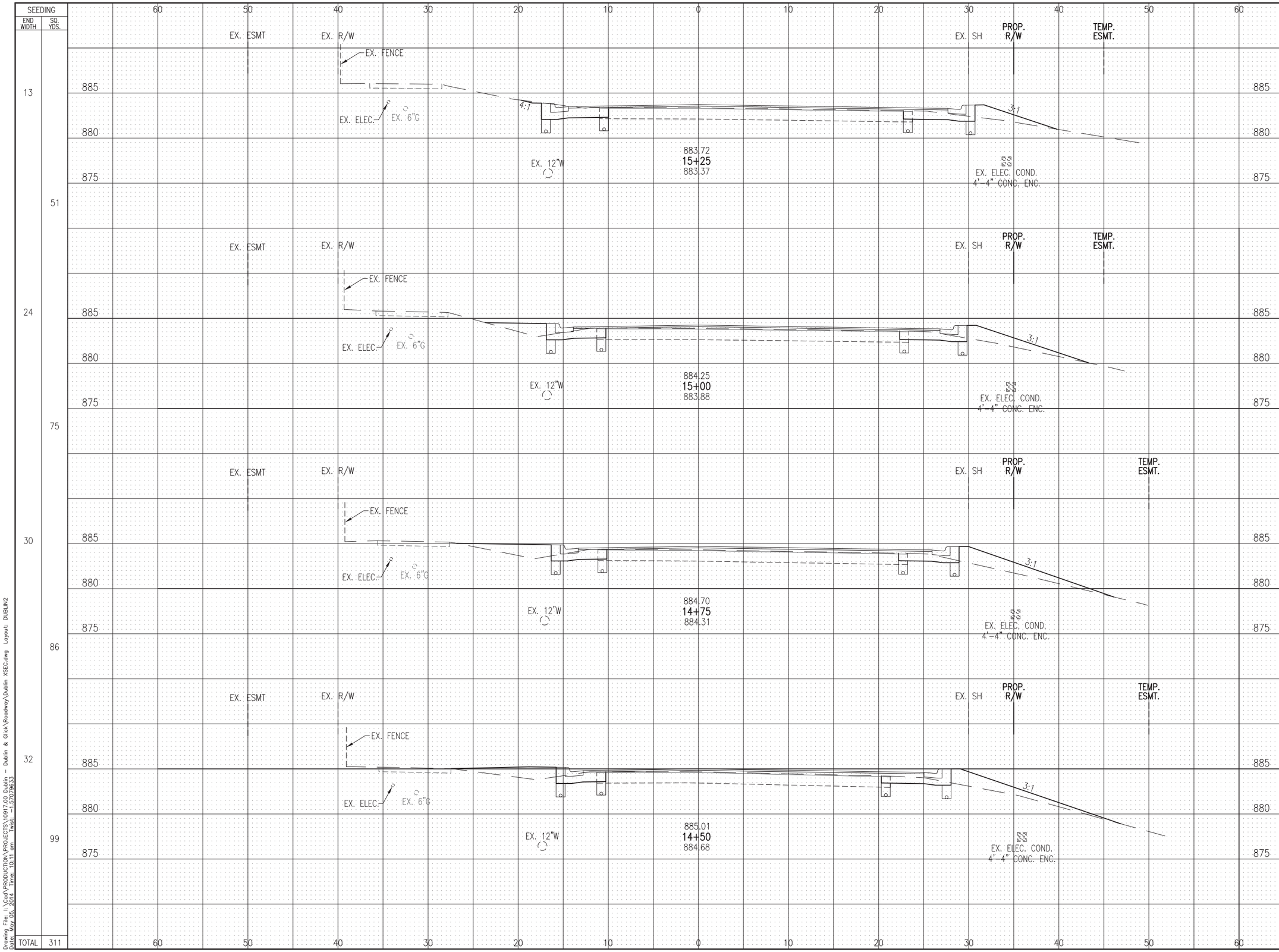
STA. 14+00 AHEAD =
STA. 14+00 BACK =

CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 13+50 TO STA. 14+25

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN1
Date: May 05, 2014 Time: 10:10 am Twist: -1.57079633



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
13	51	16.1	7.0	13	11
24	75	11.6	16.8	10	19
30	86	10.2	25.2	10	23
32	99	10.4	23.5	10	24
TOTAL	311	TOTAL		43	77

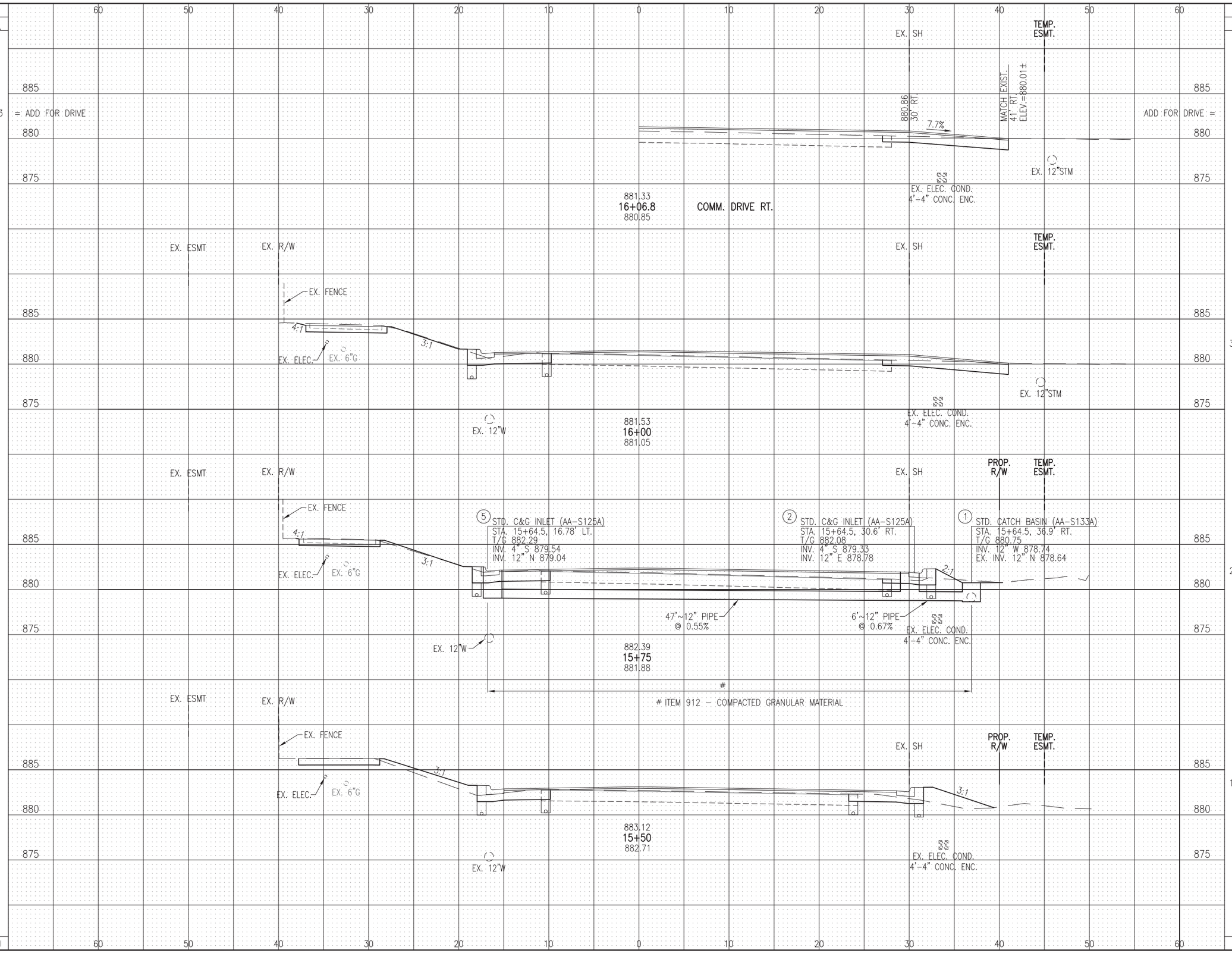
CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 14+50 TO STA. 15+25

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN2
Date: May 05, 2014 Time: 10:11 am Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
11	-13	30.3	0.1	0	0
21	44	21.0	2.1	24	1
19	56	19.2	15.0	19	8
	44			16	10
TOTAL	131	TOTAL		59	19

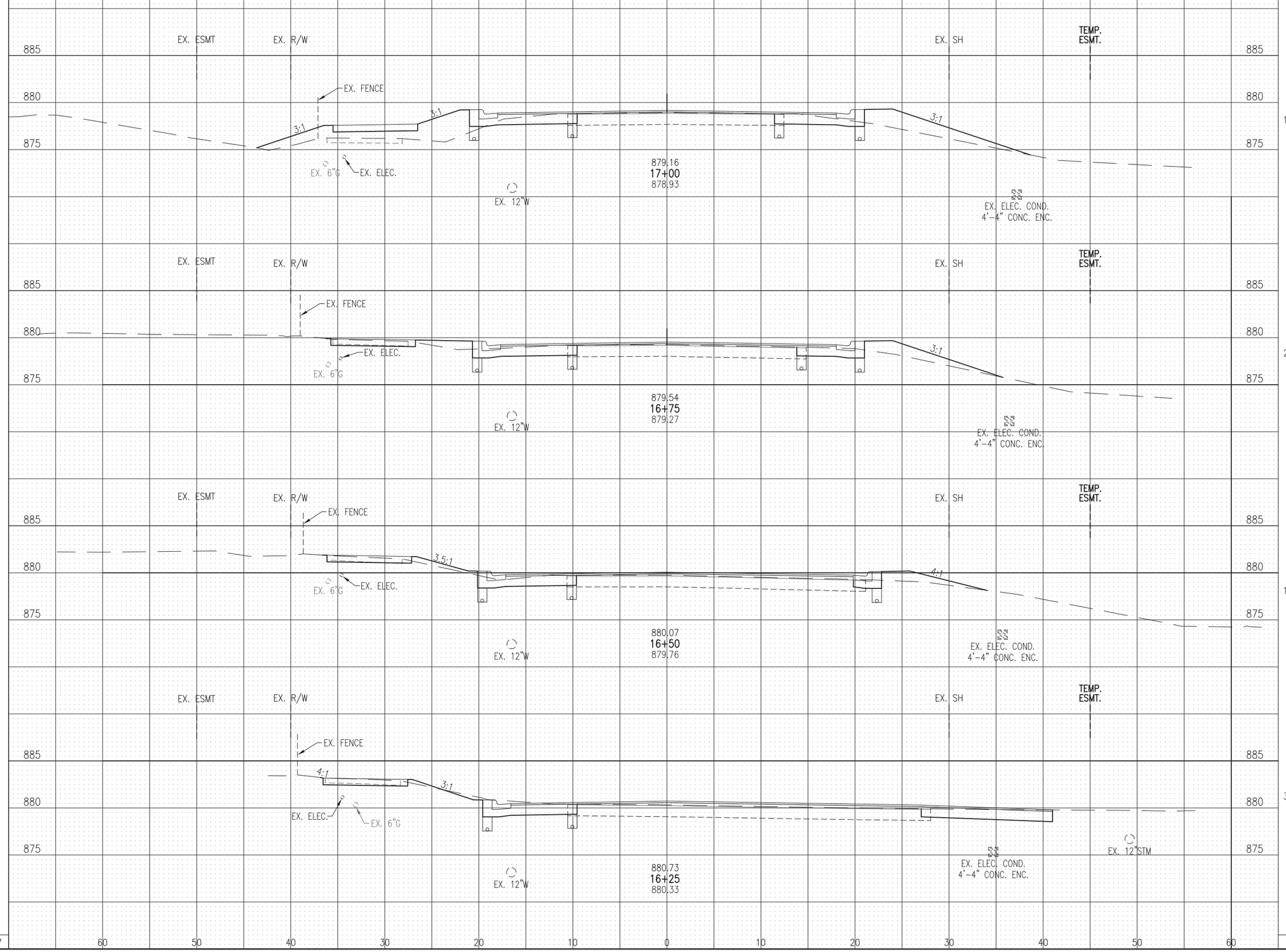


CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 15+50 TO STA. 16+06.8

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN3
Date: May 05, 2014 Time: 10:15 am Twist: -1.57079633



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
38	88	19.6	51.5	20	31
25	64	22.9	15.8	19	12
21	44	17.8	9.9	25	5
11	31	35.2	0.8	30	1
TOTAL	227	TOTAL		94	49

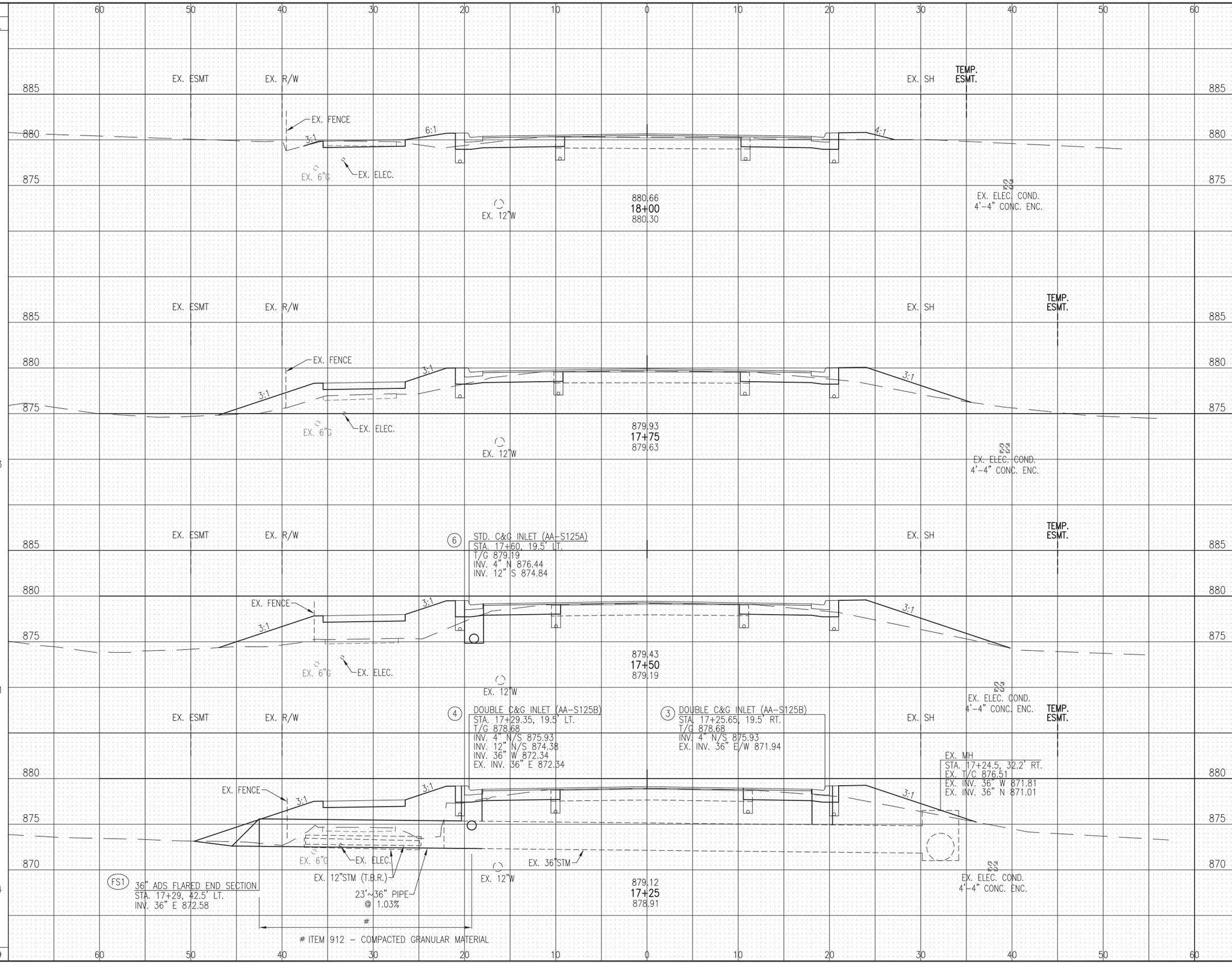
CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 16+25 TO STA. 17+00

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN4
Date: May 05, 2014 Time: 10:15 am Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.
20	81
38	113
43	121
44	114
TOTAL	429



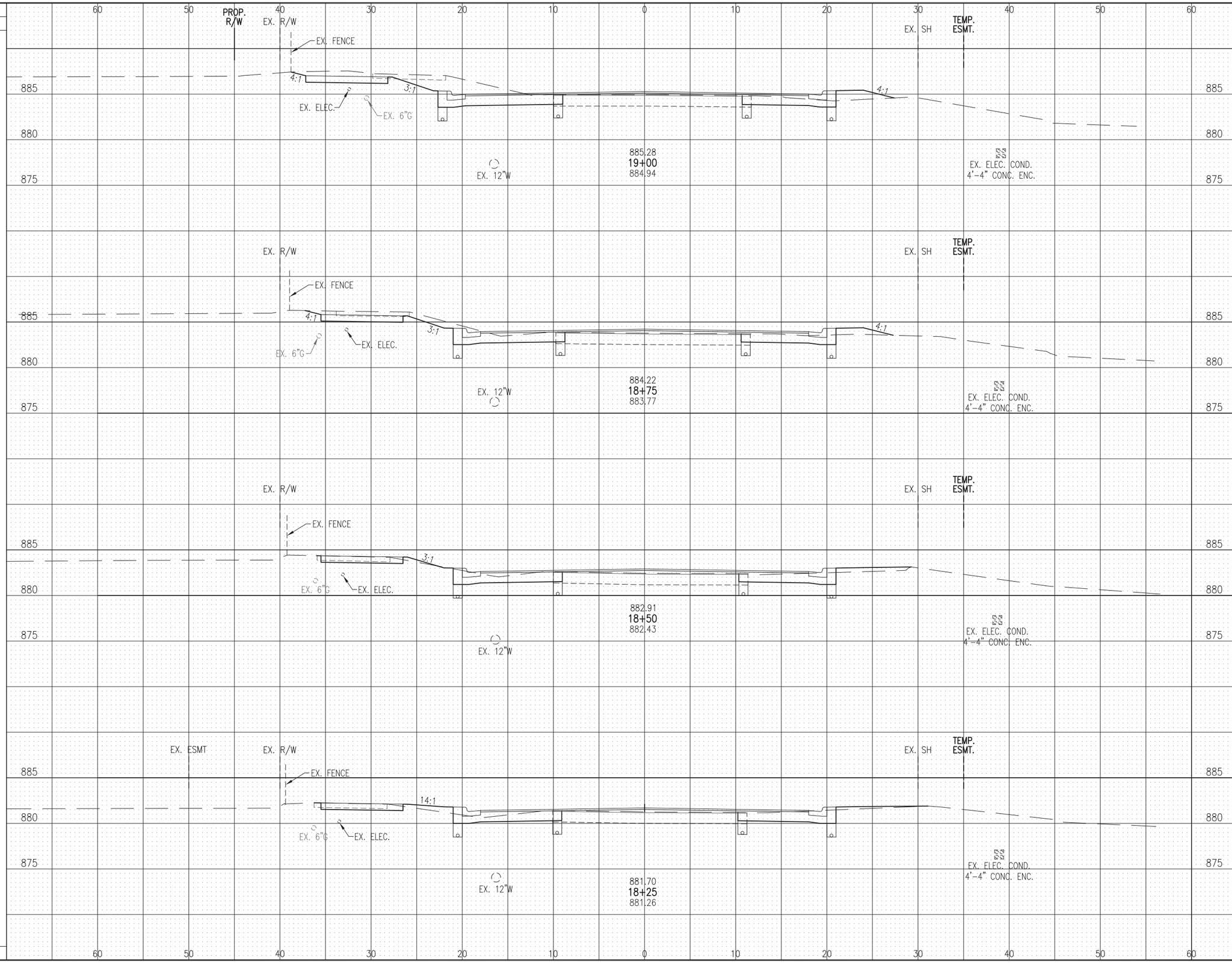
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
24.7	9.6		
		21	28
20.1	49.9		
		18	59
19.1	76.7		
		18	78
19.1	92.8		
		18	67
TOTAL		75	232

CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 17+25 TO STA. 18+00

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN5
Date: May 05, 2014 Time: 10:16 am Twist: -1.57079633



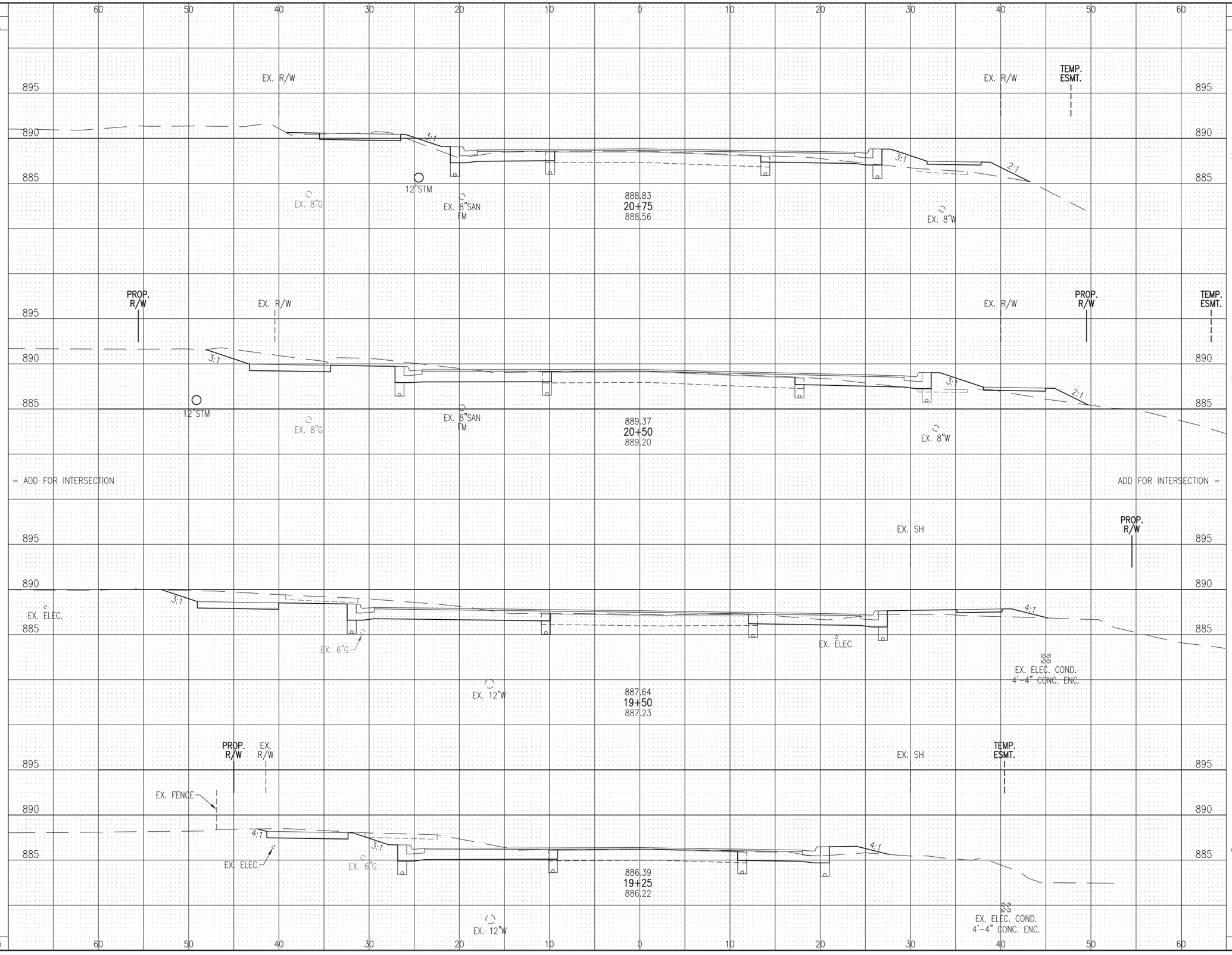
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
18	51	52.7	4.9	42	4
19	57	38.0	3.3	31	4
22	63	29.0	4.4	26	4
23	60	28.2	4.7	25	7
TOTAL	231	TOTAL		124	19

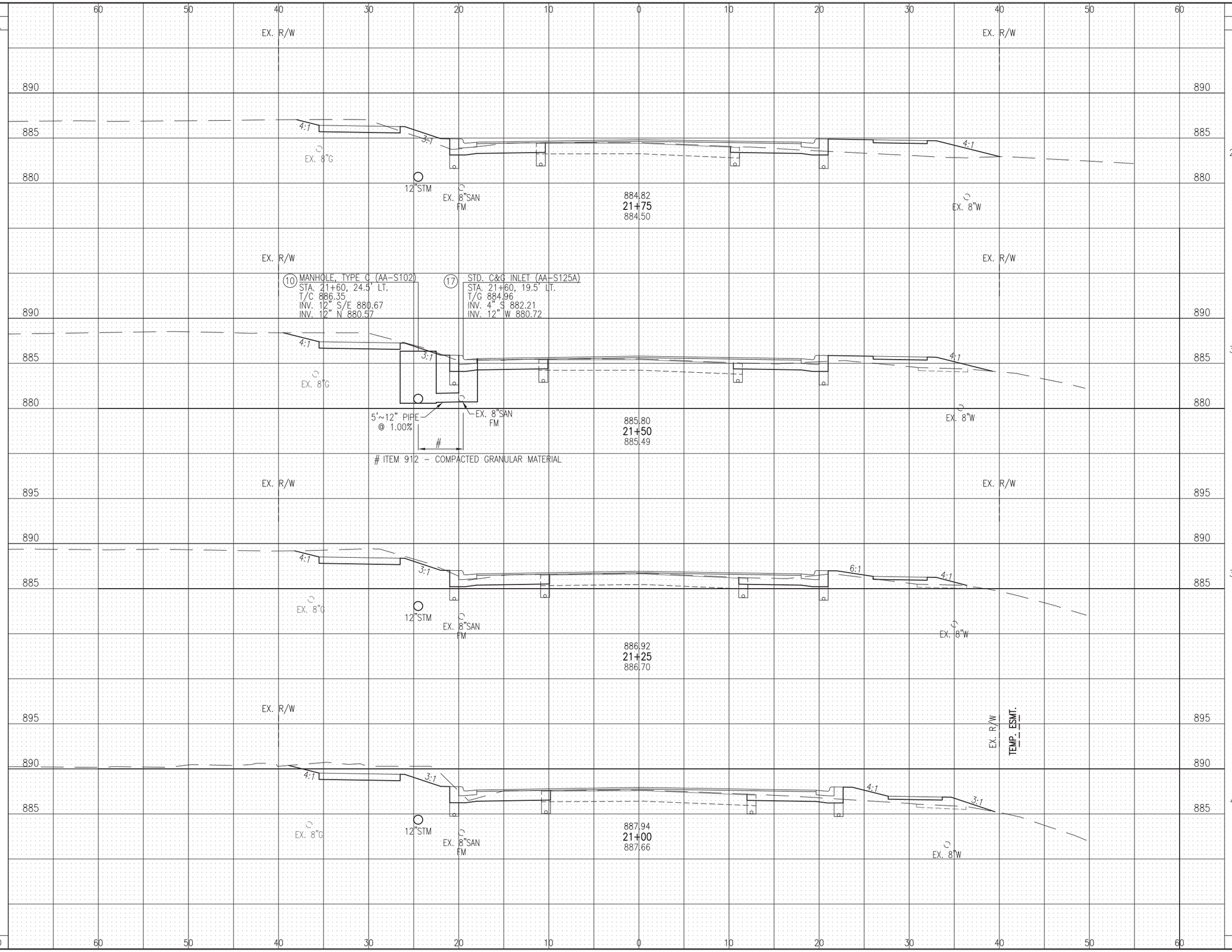
CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 18+25 TO STA. 19+00

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN6
Date: May 05, 2014 Time: 10:17 am Twist: -1.57079633


SEEDING
END WIDTH
SQ. YDS.
60 50 40 30 20 10 0 10 20 30 40 50 60
895
890
885
EX. R/W
TEMP. ESMT.
3:1
2:1
12"STM
EX. 8"G
EX. 8"SAN FM
888.83
20+75
888.56
EX. 8"W
PROP. R/W
889.37
20+50
889.20
= ADD FOR INTERSECTION
ADD FOR INTERSECTION =
EX. SH
EX. ELEC.
4:1
EX. 6"G
EX. 12"W
887.64
19+50
887.23
EX. ELEC. COND. 4'-4" CONC. ENC.
EX. FENCE
886.39
19+25
886.22
25
30
31
20
76
85
71
53
TOTAL 285
END AREA
CUT FILL
22.7 19.4
54.9 13.0
72.9 8.5
68.3 3.9
VOLUME
CUT FILL
36 15
159 27
65 6
56 4
TOTAL 316 52
CALCULATED LMO
CHECKED KJG
CROSS SECTIONS - DUBLIN ROAD
STA. 19+25 TO STA. 20+75
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS
31
76
Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN7
Date: May 05, 2014 Time: 10:37 am Twist: -1.57079633



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
27		26.7	27.5		
	75			30	18
27		37.3	12.0		
	69			34	8
23		35.8	5.4		
	67			36	8
25		41.1	11.2		
	69			29	14
TOTAL	280	TOTAL		129	48

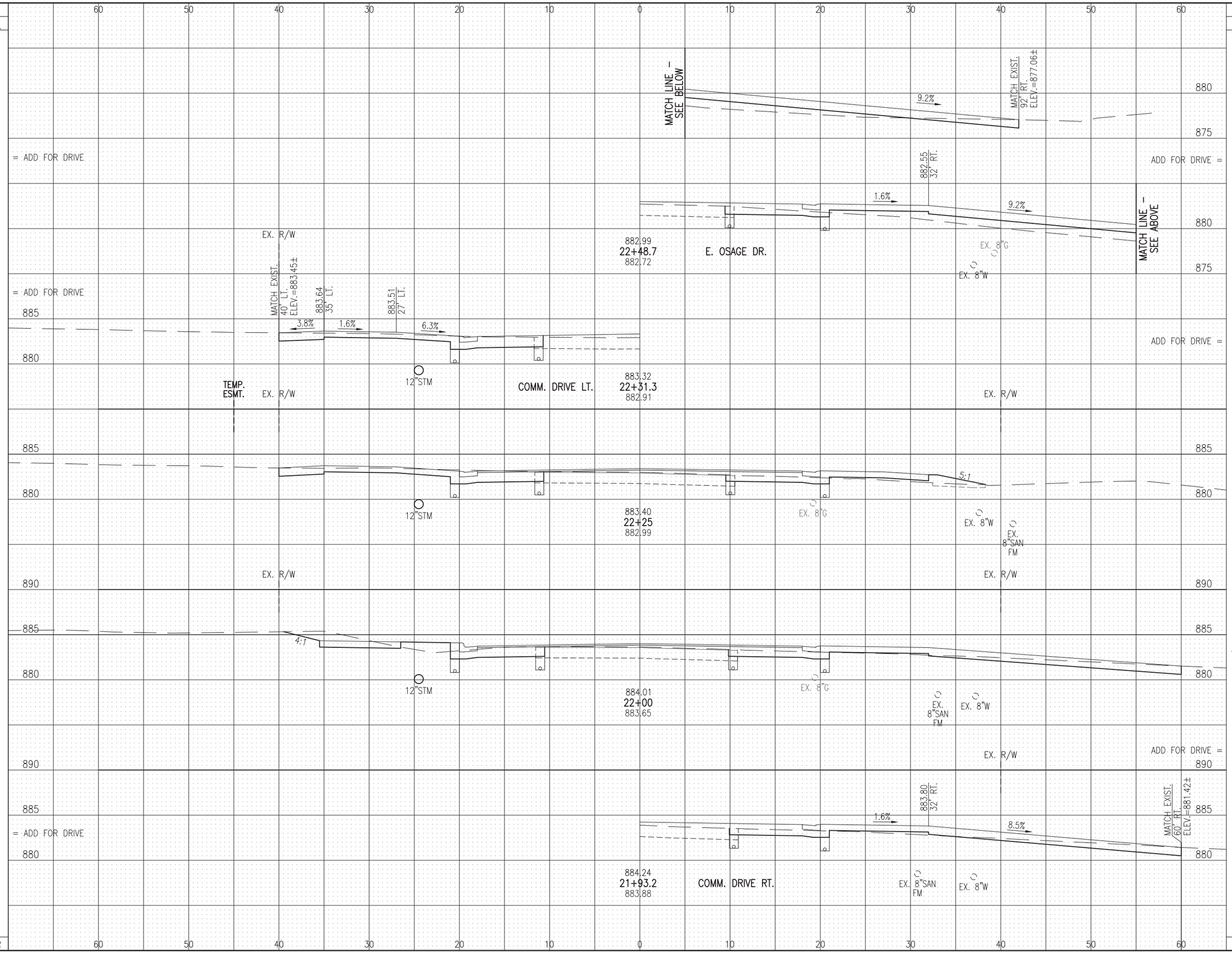
CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 21+00 TO STA. 21+75

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN8
Date: Mar 31, 2014 Time: 2:56 pm Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	22			0	−8
	2			0	0
7	28	32.1	5.5	35	5
13	56	44.3	6.0	3	1
	4			33	16
TOTAL	112	TOTAL		71	14



CALCULATED LMO
CHECKED KJG

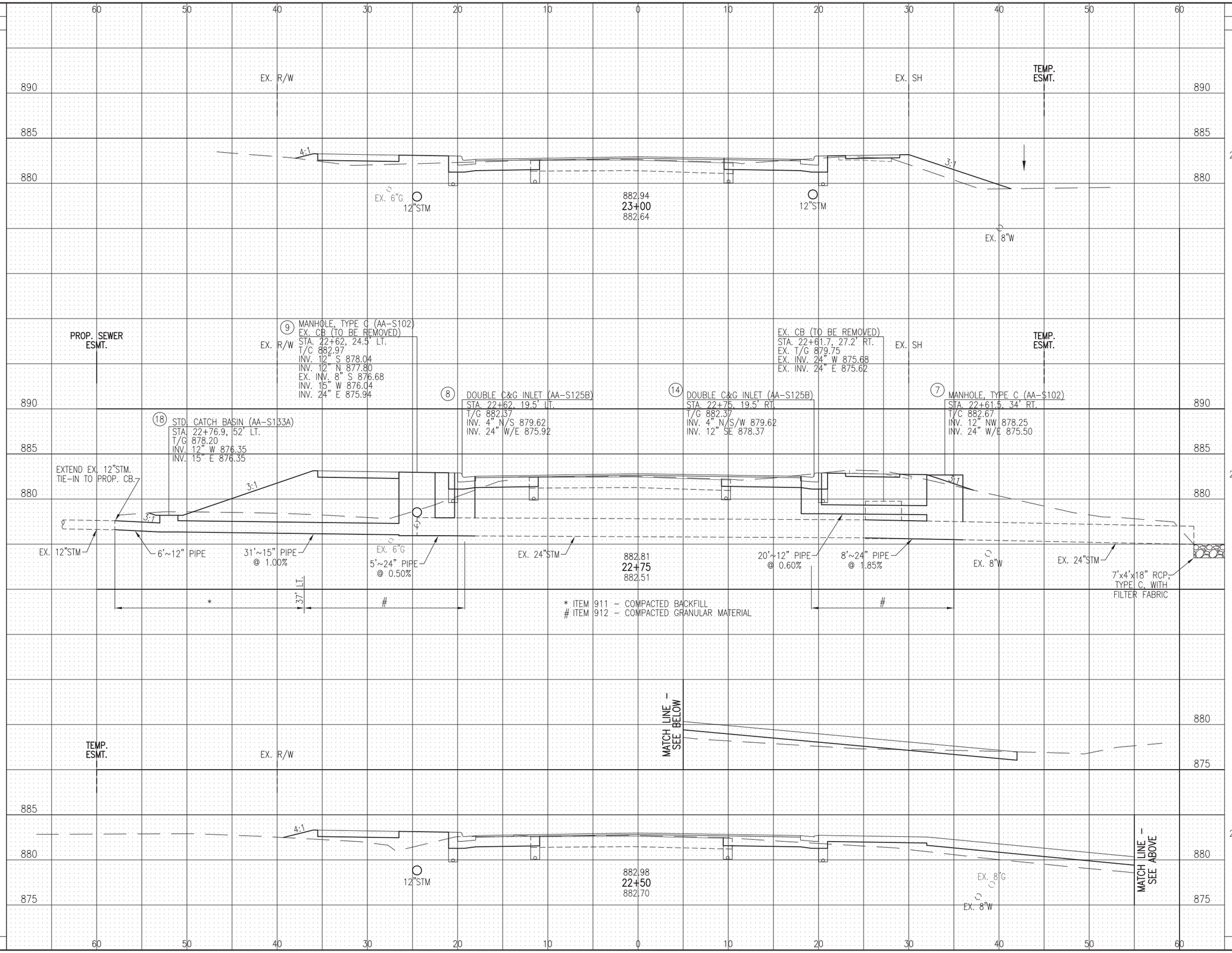
CROSS SECTIONS - DUBLIN ROAD
STA. 21+93.2 TO STA. 22+48.69

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN9
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.
28	
	93
39	
	72
13	
	28
TOTAL	193

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
22.6	23.2		
		21	56
22.0	98.7		
		22	70
25.5	53.1		
		27	27
TOTAL		70	153

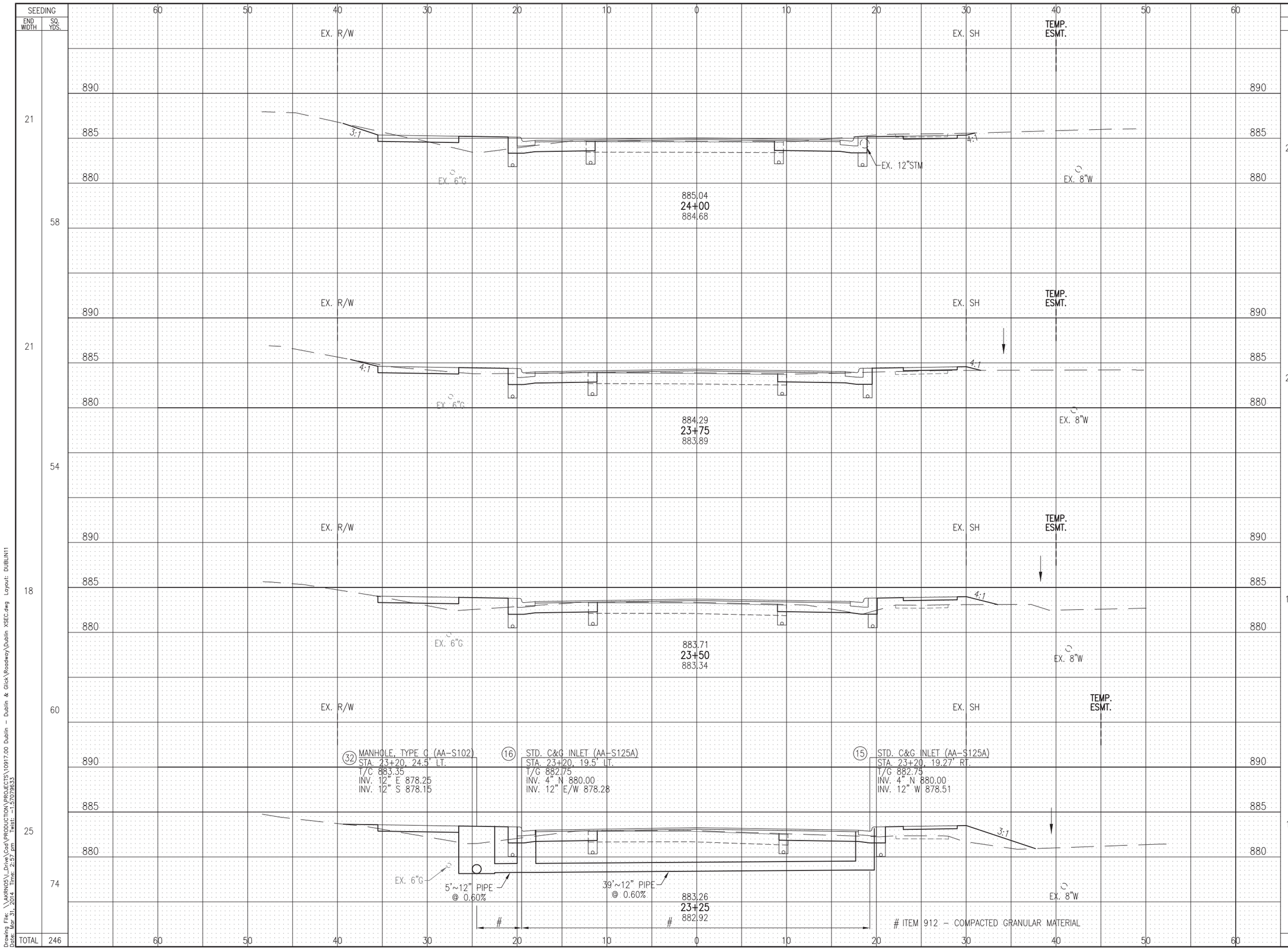


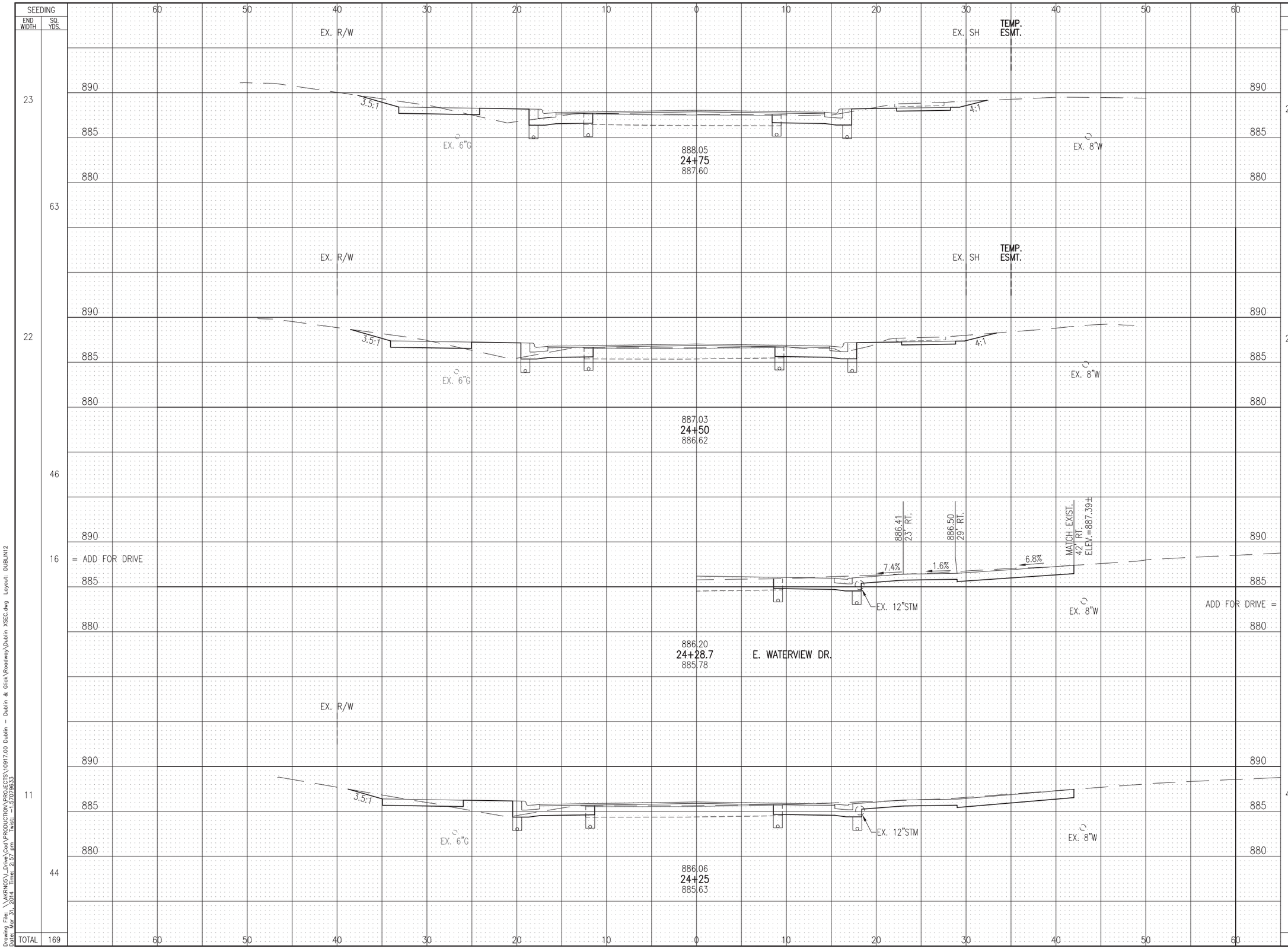
CALCULATED LMO
CHECKED KJG

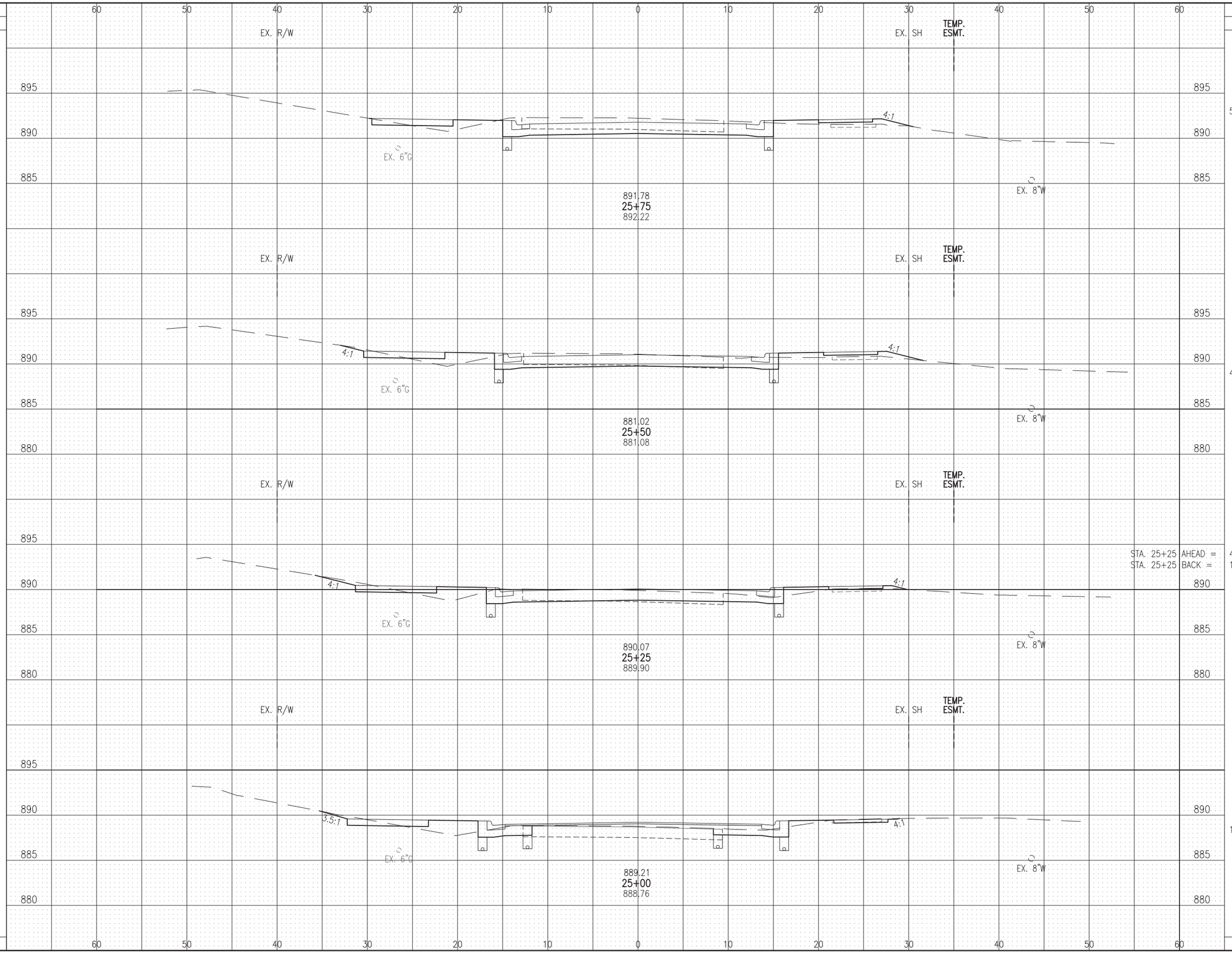
CROSS SECTIONS - DUBLIN ROAD STA. 22+50 TO STA. 23+00

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: \\AKRNDS\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN10
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.5709633


SEEDING
END WIDTH
SQ. YDS.
60 50 40 30 20 10 0 10 20 30 40 50 60
EX. R/W
EX. SH
TEMP. ESMT.
890
885
880
3:1
4:1
EX. 6"G
EX. 12"STM
EX. 8"W
885.04
24+00
884.68
884.29
23+75
883.89
883.71
23+50
883.34
883.26
23+25
882.92
(32) MANHOLE, TYPE C (AA-S102)
STA. 23+20, 24.5' LT.
T/C 883.35
INV. 12" E 878.25
INV. 12" S 878.15
(16) STD. C&G INLET (AA-S125A)
STA. 23+20, 19.5' LT.
T/G 882.75
INV. 4" N 880.00
INV. 12" E/W 878.28
(15) STD. C&G INLET (AA-S125A)
STA. 23+20, 19.27' RT.
T/G 882.75
INV. 4" N 880.00
INV. 12" W 878.51
5'~12" PIPE @ 0.60%
39'~12" PIPE @ 0.60%
#
ITEM 912 - COMPACTED GRANULAR MATERIAL
END AREA
CUT
FILL
VOLUME
CUT
FILL
21 58 27.0 12.0 25 9
21 54 26.8 8.0 20 13
18 60 15.8 19.4 15 24
25 74 16.1 32.8 18 26
TOTAL 246 TOTAL 78 72
CALCULATED LMO
CHECKED KJG
CROSS SECTIONS - DUBLIN ROAD
STA. 23+25 TO STA. 24+00
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS
35
76
Drawing File: \\AKRNO5\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN11
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633


SEEDING
END WIDTH
SQ. YDS.
23
63
22
46
16
11
44
TOTAL 169
= ADD FOR DRIVE
EX. R/W
EX. SH
TEMP. ESMT.
3.5:1
4:1
EX. 6"G
EX. 8"W
888.05
24+75
887.60
887.03
24+50
886.62
886.41
23' RT.
886.50
29' RT.
MATCH EXIST.
42' RT.
ELEV.=887.39±
7.4%
1.6%
6.8%
EX. 12"STM
ADD FOR DRIVE =
886.20
24+28.7
885.78
E. WATERVIEW DR.
886.06
24+25
885.63
890
885
880
END AREA
CUT
FILL
VOLUME
CUT
FILL
28.3
7.7
26
8
27.7
9.0
33
8
0
0
44.6
8.1
33
9
TOTAL
92
25
CALCULATED
LMO
CHECKED
KJG
CROSS SECTIONS - DUBLIN ROAD
STA. 24+25 TO STA. 24+75
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS
36
76
Drawing File: \\AKRNG5_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN12
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633



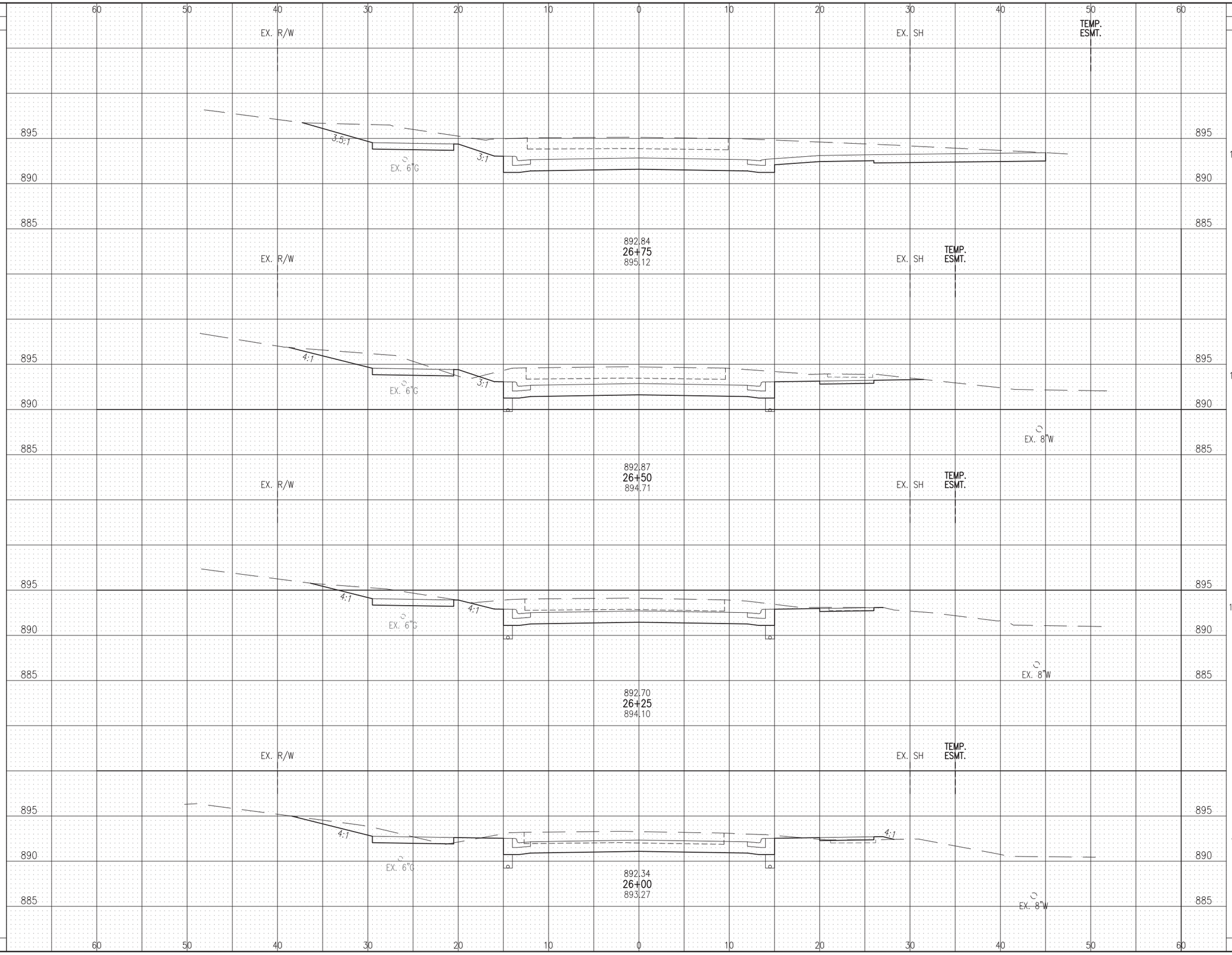
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
20	60	53.5	11.3	46	12
23	61	45.2	14.7	40	13
21	54	40.8 / 15.9	12.3 / 10.1	15	9
18	57	15.9	10.1	20	8
TOTAL	232	TOTAL		121	42

CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 25+00 TO STA. 25+75

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRNO5\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN13
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633



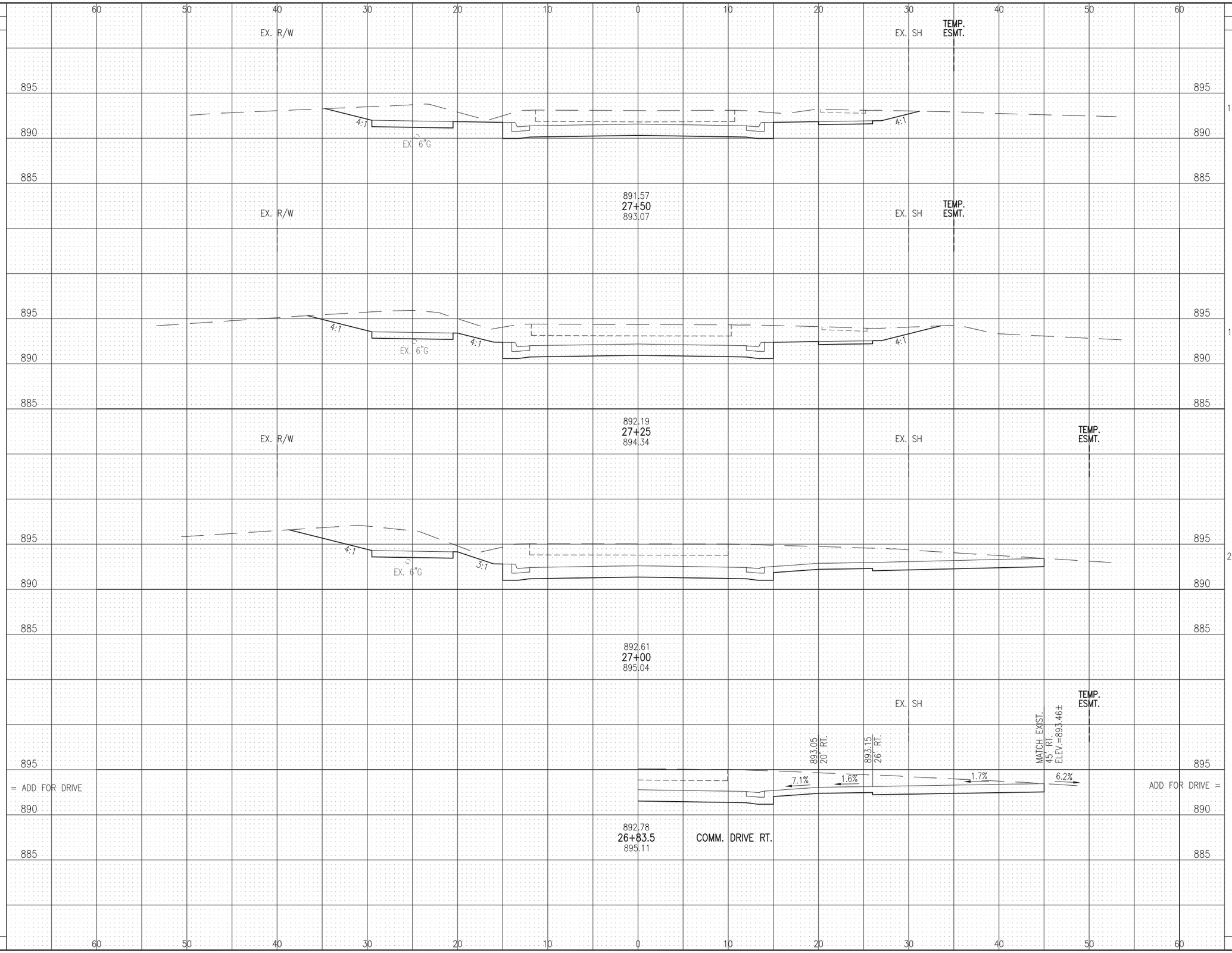
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
16		196.1	0		
	65			150	1
31		127.1	1.5		
	76			106	1
24		100.8	0		
	71			83	1
27		79.4	1.6		
	65			62	6
TOTAL	277	TOTAL		401	9

CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 26+00 TO STA. 26+75

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRNO5_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN14
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633



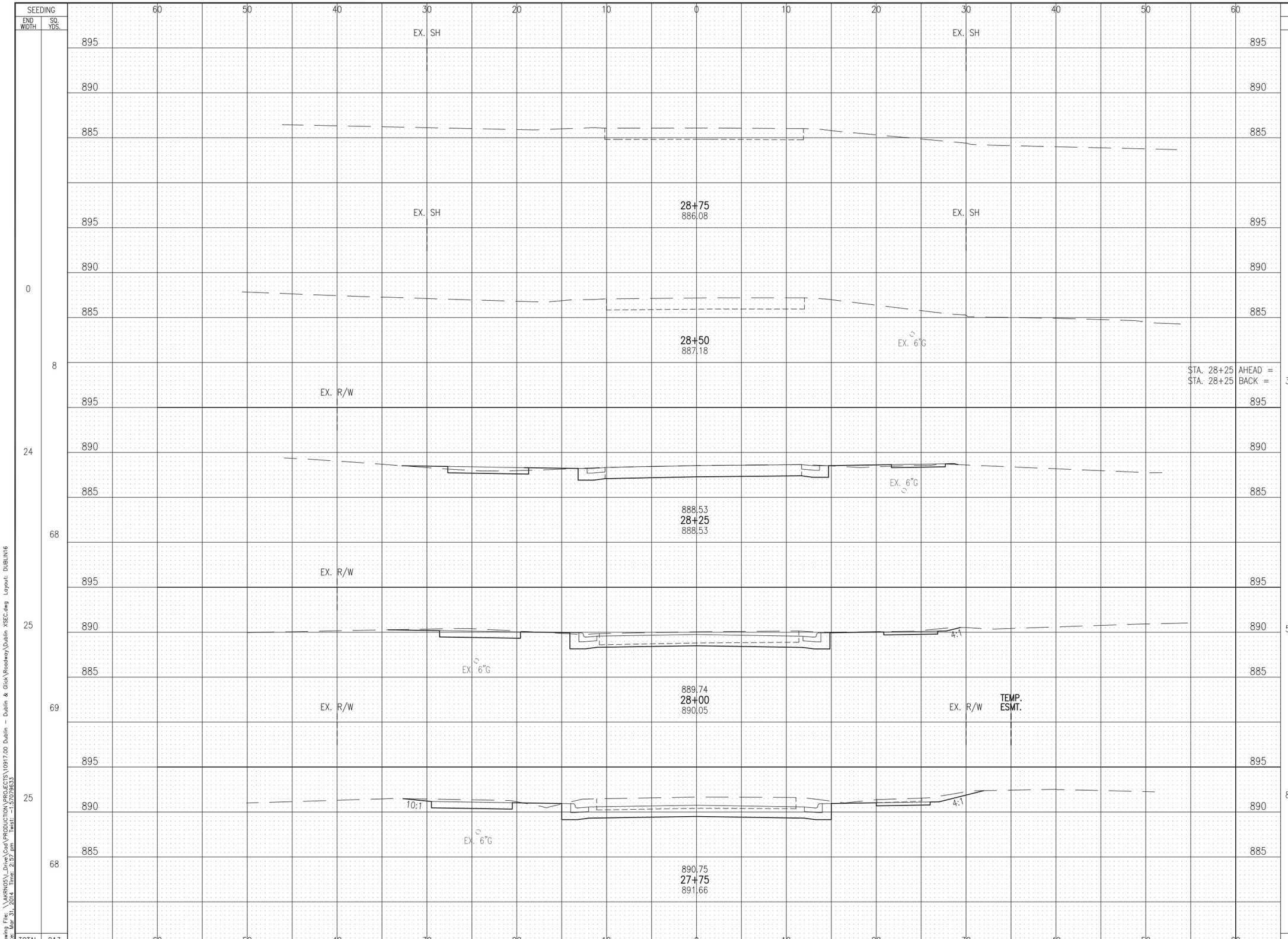
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
24		131.9	0		
	78			141	0
32		173.1	0		
	68			181	0
17		218.5	0		
	0			0	0
	46			192	0
TOTAL	192	TOTAL		514	0

CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 26+83.5 TO STA. 27+50

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN15
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.5707963

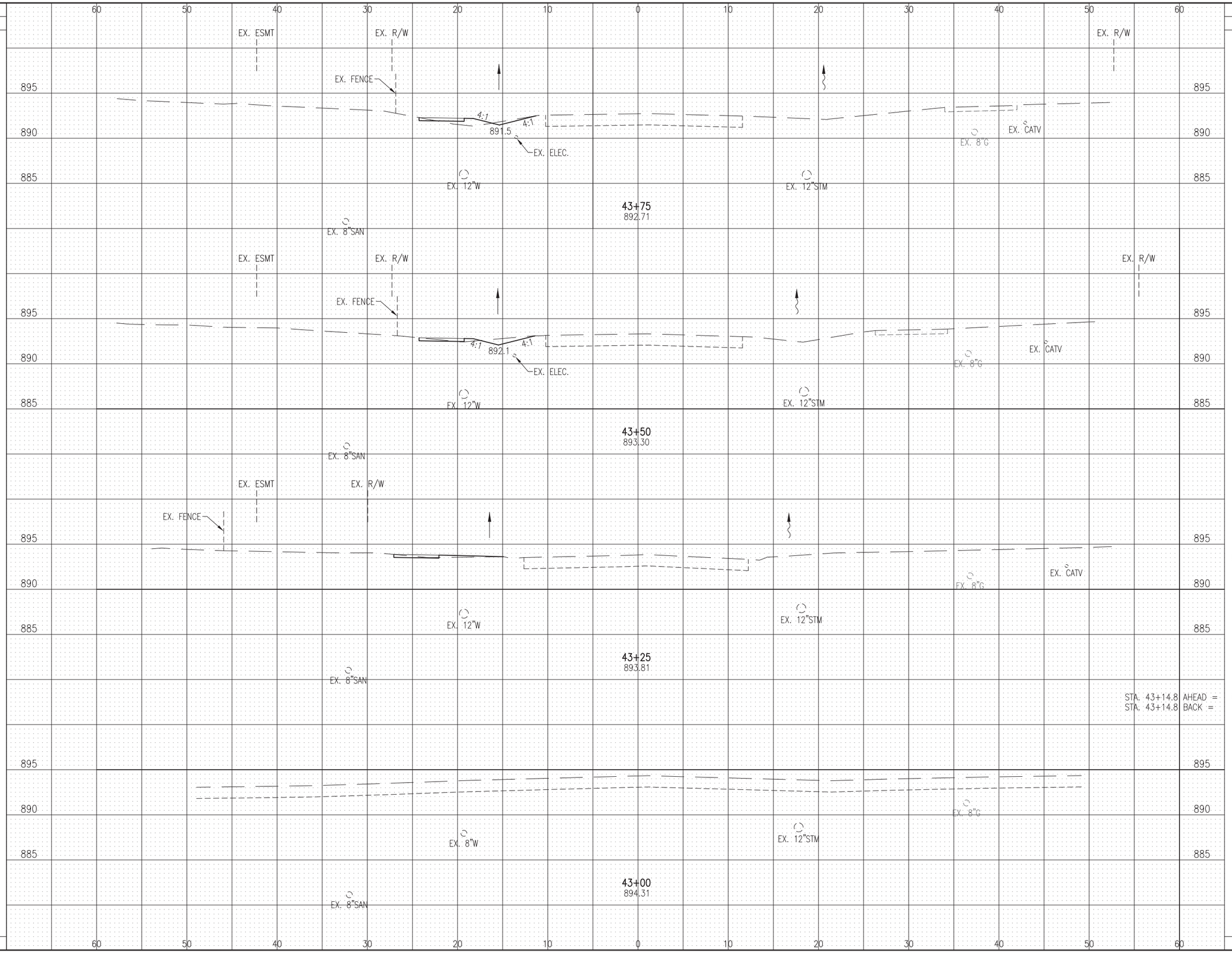


CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - DUBLIN ROAD
STA. 27+75 TO STA. 28+75

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRNO5_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: DUBLIN16
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10	28	1.1	2.4	2	1
10	24	2.8	0.5	2	1
7	44	0.8	1.0	1	1
		0.8	1.0		
		0	0		
TOTAL	96	TOTAL		5	3

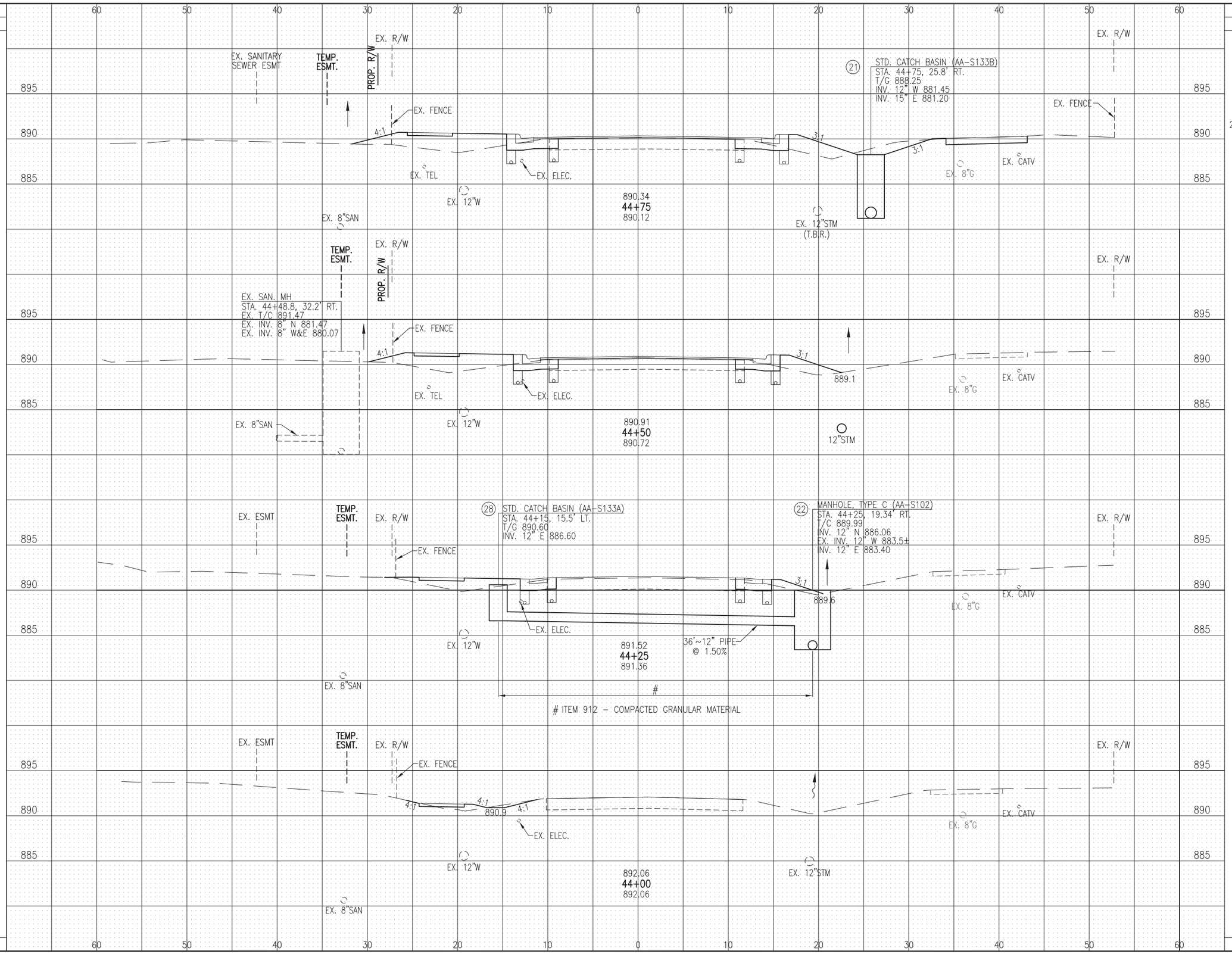
CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - GLICK ROAD
STA. 43+00 TO STA. 43+75

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05\J_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK1
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
33	74	20.7	32.5	14	28
20	53	9.1	27.9	8	19
18	38	8.0	13.9	4	7
9	26	1.3	1.8	1	2
TOTAL	191	TOTAL		27	56

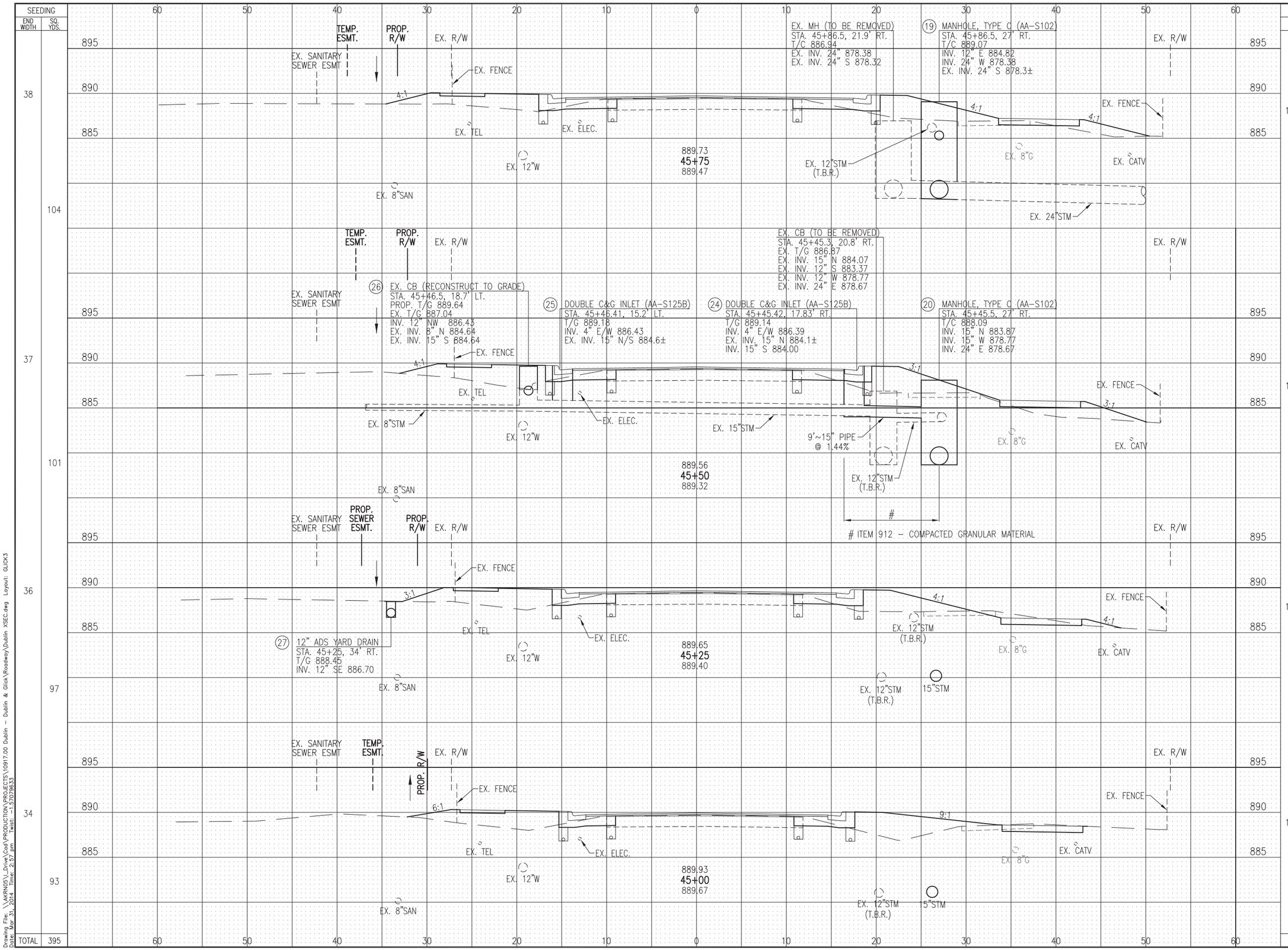


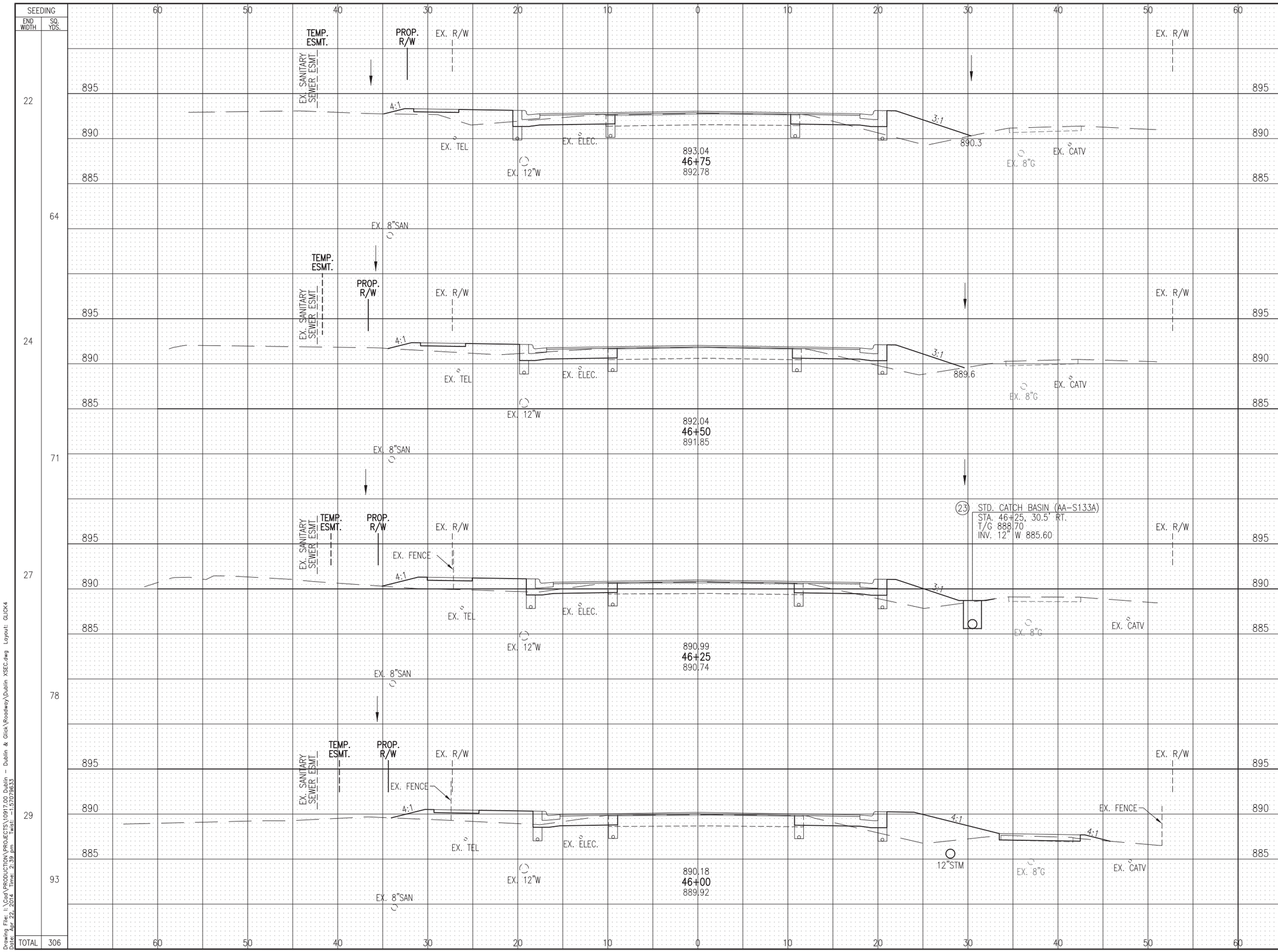
CALCULATED LMO
CHECKED KJG

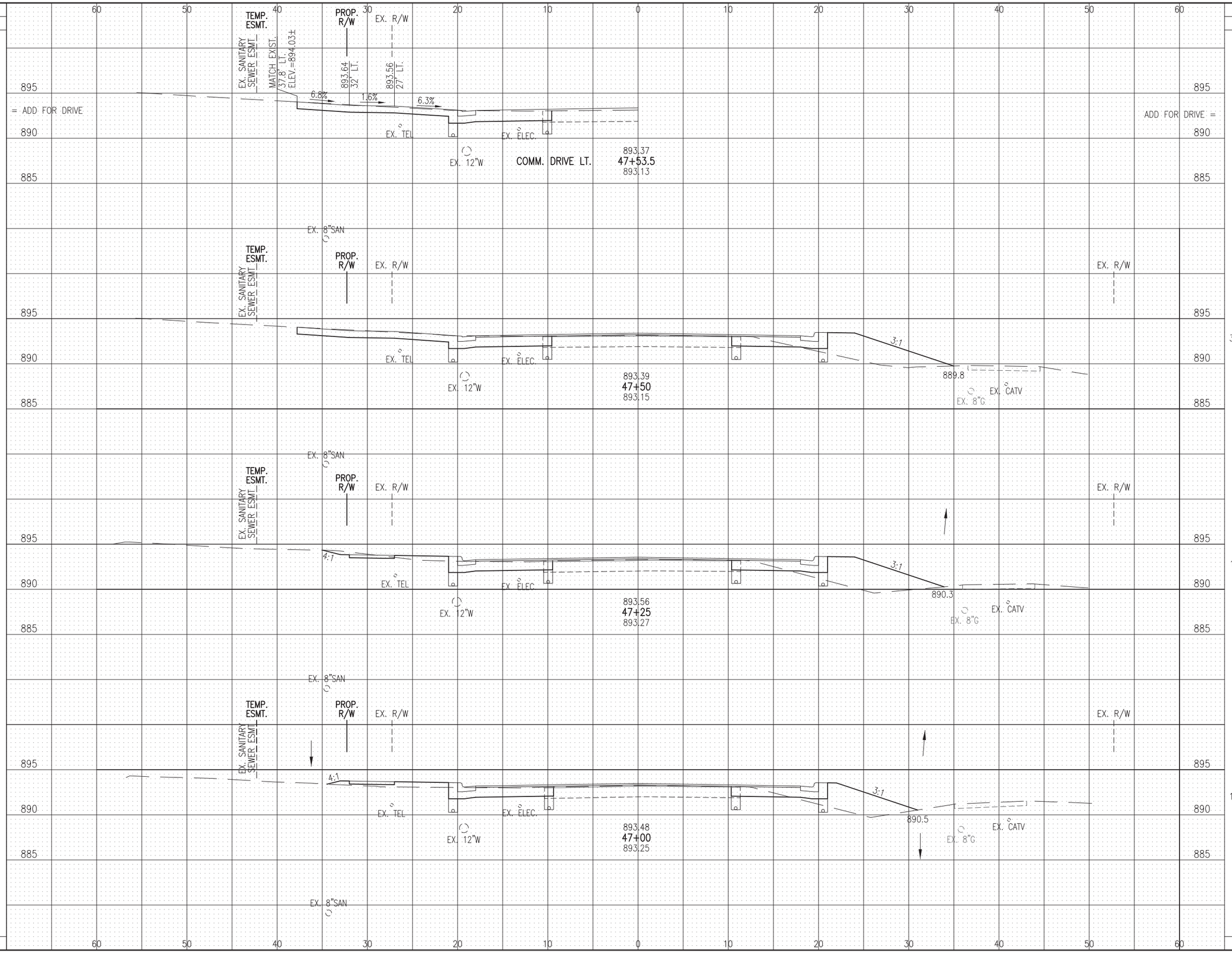
CROSS SECTIONS - GLICK ROAD
STA. 44+00 TO STA. 44+75

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK2
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633


SEEDING
END WIDTH
SQ. YDS.
38
104
37
101
36
97
34
93
TOTAL 395
TEMP. ESMT.
PROP. R/W
EX. R/W
EX. SANITARY SEWER ESMT
EX. FENCE
EX. TEL
EX. ELEC.
EX. 12"W
EX. 8"SAN
EX. 8"G
EX. CATV
EX. 24"STM
EX. 12"STM (T.B.R.)
889.73
45+75
889.47
EX. MH (TO BE REMOVED)
STA. 45+86.5, 21.9' RT.
T/C 886.94
EX. INV. 24" 878.38
EX. INV. 24" S 878.32
19 MANHOLE, TYPE C (AA-S102)
STA. 45+86.5, 27' RT.
T/C 889.07
INV. 12" E 884.82
INV. 24" W 878.38
EX. INV. 24" S 878.3±
EX. CB (TO BE REMOVED)
STA. 45+45.3, 20.8' RT.
EX. T/G 886.87
EX. INV. 15" N 884.07
EX. INV. 12" S 883.37
EX. INV. 12" W 878.77
EX. INV. 24" E 878.67
26 EX. CB (RECONSTRUCT TO GRADE)
STA. 45+46.5, 18.7' LT.
PROP. T/G 889.64
EX. T/G 887.04
INV. 12" NW 886.43
EX. INV. 8" N 884.64
EX. INV. 15" S 884.64
25 DOUBLE C&G INLET (AA-S125B)
STA. 45+46.41, 15.2' LT.
T/G 889.18
INV. 4" E/W 886.43
EX. INV. 15" N/S 884.6±
24 DOUBLE C&G INLET (AA-S125B)
STA. 45+45.42, 17.83' RT.
T/G 889.14
INV. 4" E/W 886.39
EX. INV. 15" N 884.1±
INV. 15" S 884.00
20 MANHOLE, TYPE C (AA-S102)
STA. 45+45.5, 27' RT.
T/C 888.09
INV. 15" N 883.87
INV. 15" W 878.77
INV. 24" E 878.67
EX. 8"STM
EX. 15"STM
9'~15" PIPE @ 1.44%
889.56
45+50
889.32
PROP. SEWER ESMT.
ITEM 912 – COMPACTED GRANULAR MATERIAL
27 12" ADS YARD DRAIN
STA. 45+25, 34' RT.
T/G 888.45
INV. 12" SE 886.70
889.65
45+25
889.40
15"STM
5"STM
889.93
45+00
889.67
4:1
3:1
6:1
9:1
END AREA
CUT
FILL
VOLUME
CUT
FILL
13.4 52.1
12 55
11.9 65.7
14 53
18.4 49.3
17 47
18.0 51.2
18 39
TOTAL 61 194
CALCULATED LMO
CHECKED KJG
CROSS SECTIONS - GLICK ROAD
STA. 45+00 TO STA. 45+75
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS
43
76
Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK3
Date: Mar 31, 2014 Time: 2:57 pm Twist: -1.57079633


SEEDING
END WIDTH
SQ. YDS.
22
64
24
71
27
78
29
93
TOTAL 306
60 50 40 30 20 10 0 10 20 30 40 50 60
TEMP. ESMT.
PROP. R/W
EX. R/W
EX. SANITARY SEWER ESMT.
895
890
885
4:1
3:1
EX. TEL
EX. ELEC.
EX. 12"W
893.04
46+75
892.78
890.3
EX. 8"G
EX. CATV
EX. 8"SAN
892.04
46+50
891.85
889.6
23 STD. CATCH BASIN (AA-S133A)
STA. 46+25, 30.5' RT.
T/G 888.70
INV. 12" W 885.60
EX. FENCE
890.99
46+25
890.74
890.18
46+00
889.92
12"STM
END AREA
CUT FILL
13.5 31.6
14.2 28.0
10.9 32.5
14.2 44.2
TOTAL
VOLUME
CUT FILL
13 28
12 28
12 36
13 45
50 137
CALCULATED LMO
CHECKED KJG
CROSS SECTIONS - GLICK ROAD
STA. 46+00 TO STA. 46+75
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS
44
76
Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK4
Date: Apr 22, 2014 Time: 2:39 pm Twist: -1.57079633



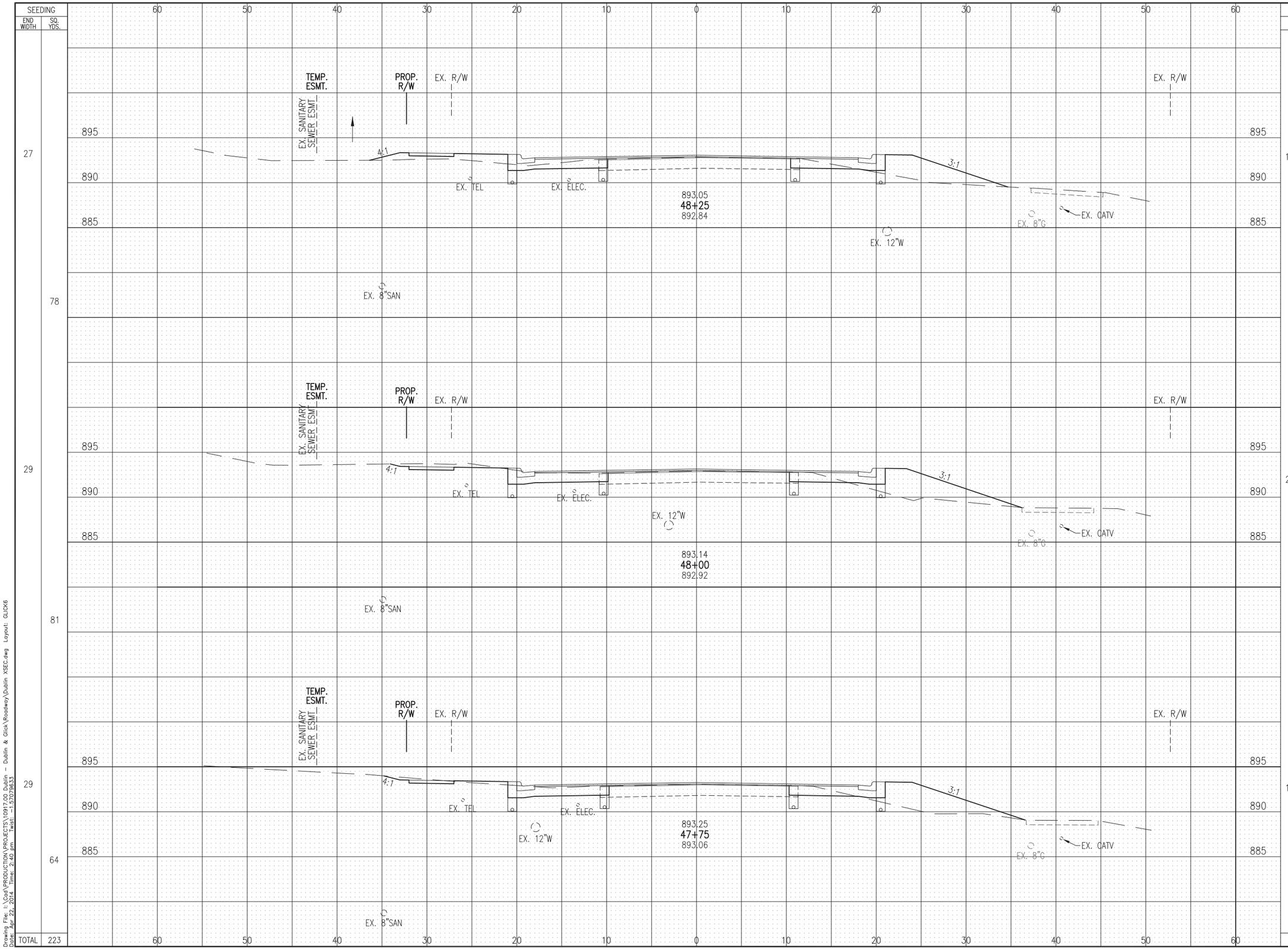
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17	0	31.5	27.5	0	0
27	61	19.1	32.8	23	28
24	71	16.9	15.8	17	23
	64			14	22
TOTAL	196	TOTAL		54	73

CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - GLICK ROAD STA. 47+00 TO STA. 47+53.5

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK5
Date: Apr 22, 2014 Time: 2:39 pm Twist: -1.57079633



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
27	78	12.4	31.6	16	28
29	81	22.7	28.4	20	26
29	64	19.9	28.5	24	26
TOTAL	223	TOTAL		60	80

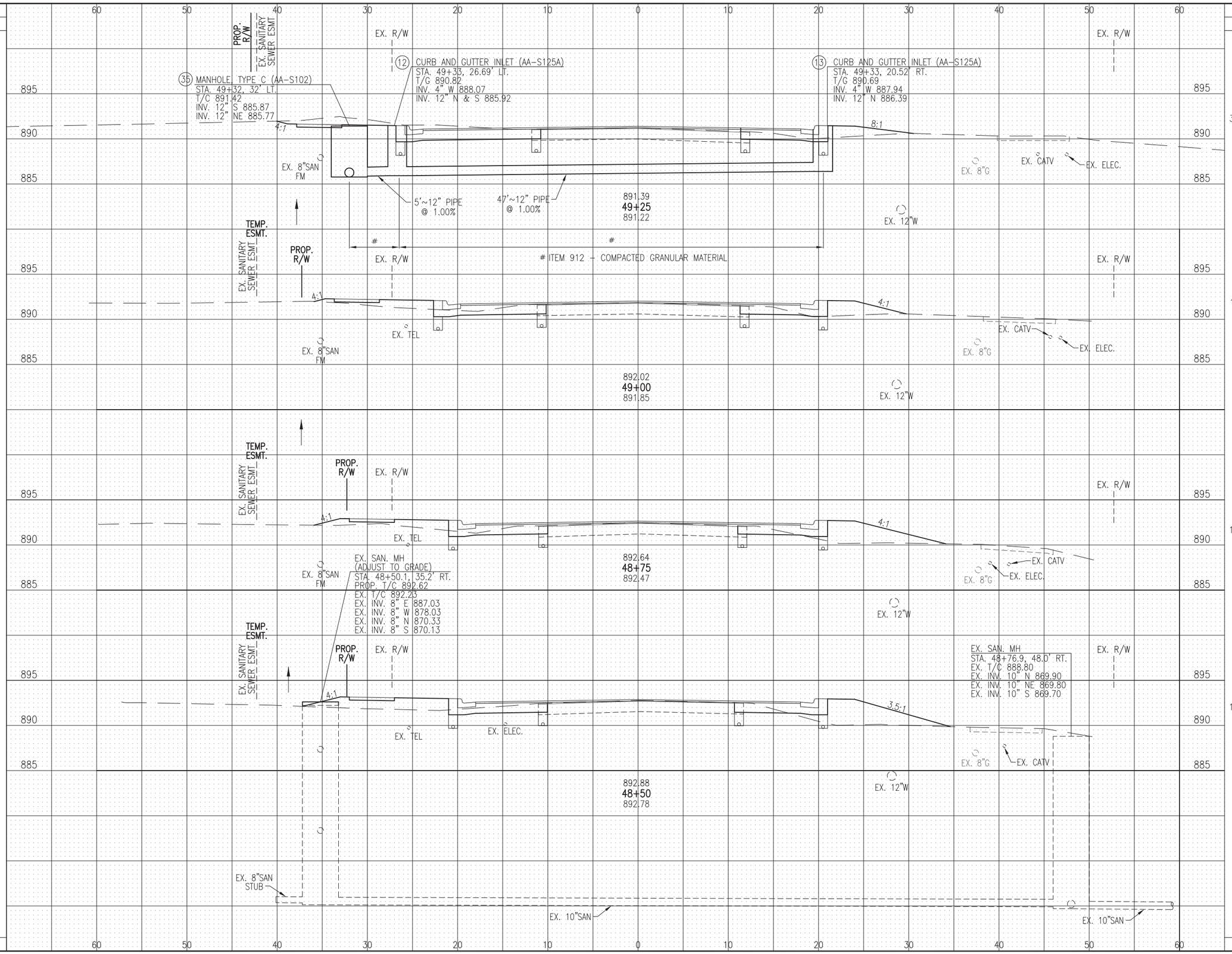
CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - GLICK ROAD
STA. 47+75 TO STA. 48+25

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK6
Date: Apr 22, 2014 Time: 2:40 pm Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
24	65	37.3	7.2	24	11
23	71	14.1	16.4	12	21
28	78	11.2	28.1	11	32
28	76	12.2	40.5	11	33
TOTAL	290	TOTAL		58	97



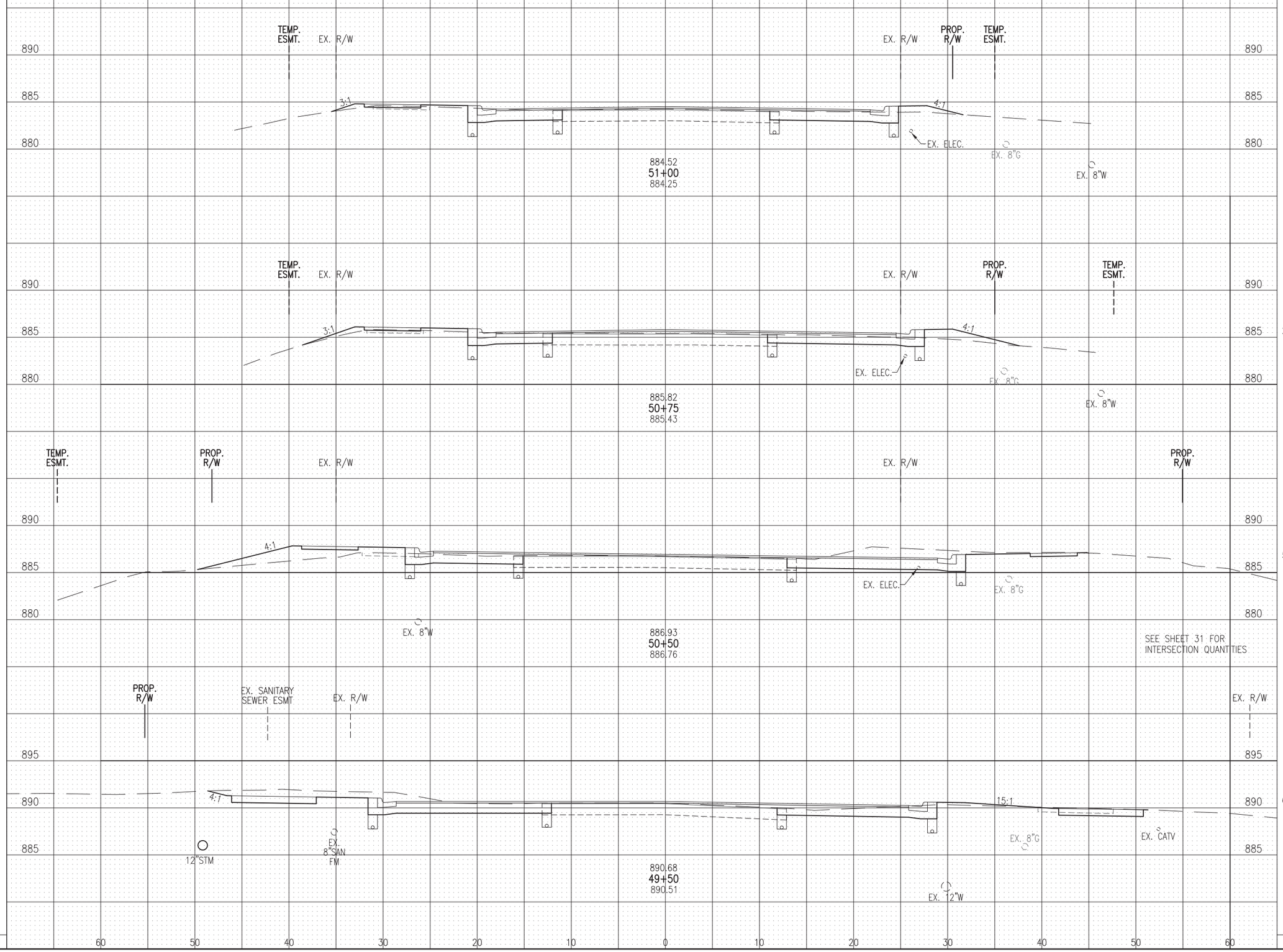
CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - GLICK ROAD
STA. 48+50 TO STA. 49+25

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK7
Date: Apr 22, 2014 Time: 2:40 pm Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
20	63	28.1	6.6	26	8
25	72	27.5	11.7	36	14
27	74	51.3	18.8		
26	69	68.0	2.6	49	5
TOTAL	278	TOTAL		111	27

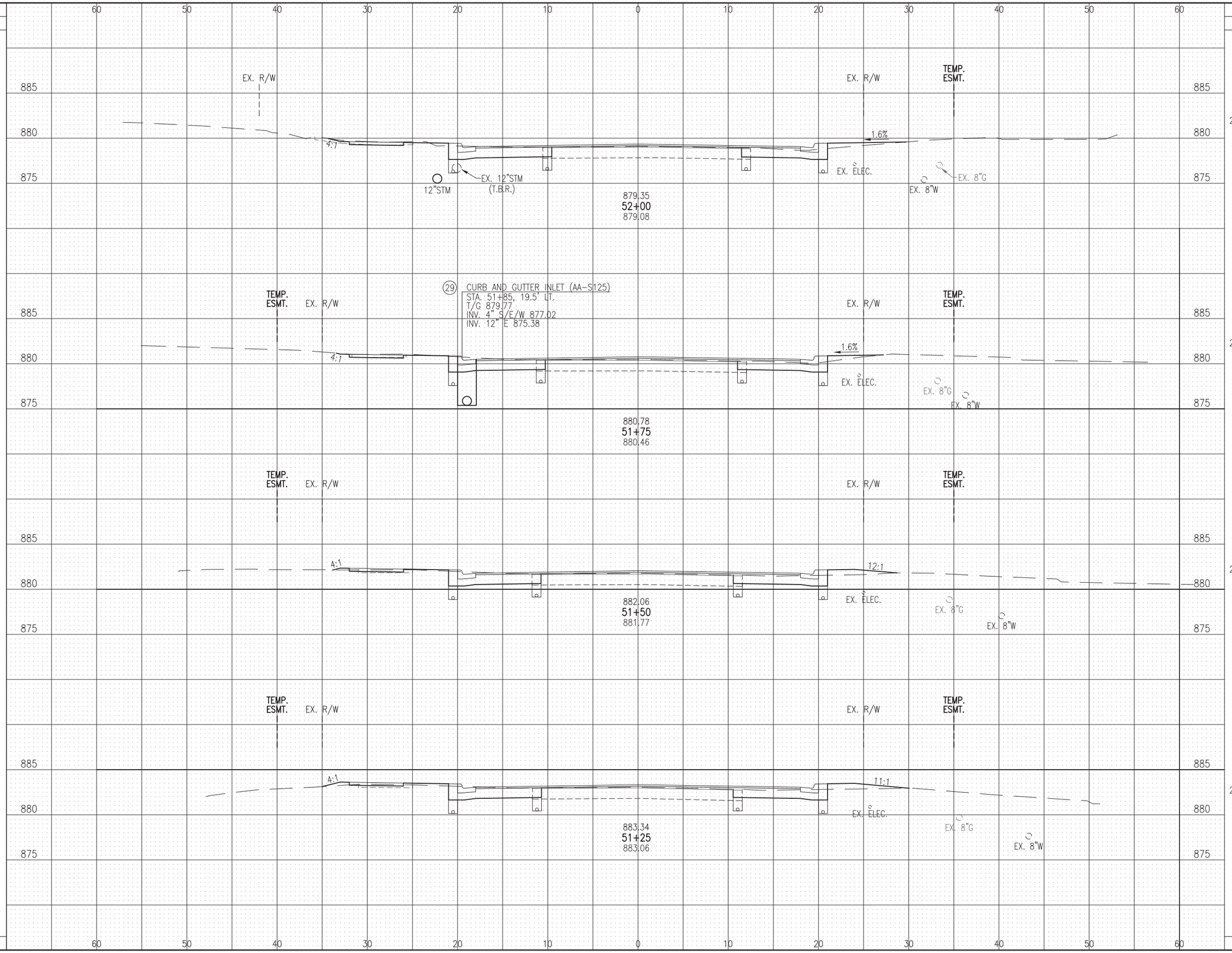


CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - GLICK ROAD
STA. 49+50 TO STA. 51+00

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK8
Date: Mar 31, 2014 Time: 2:58 pm Twist: -1.57079633



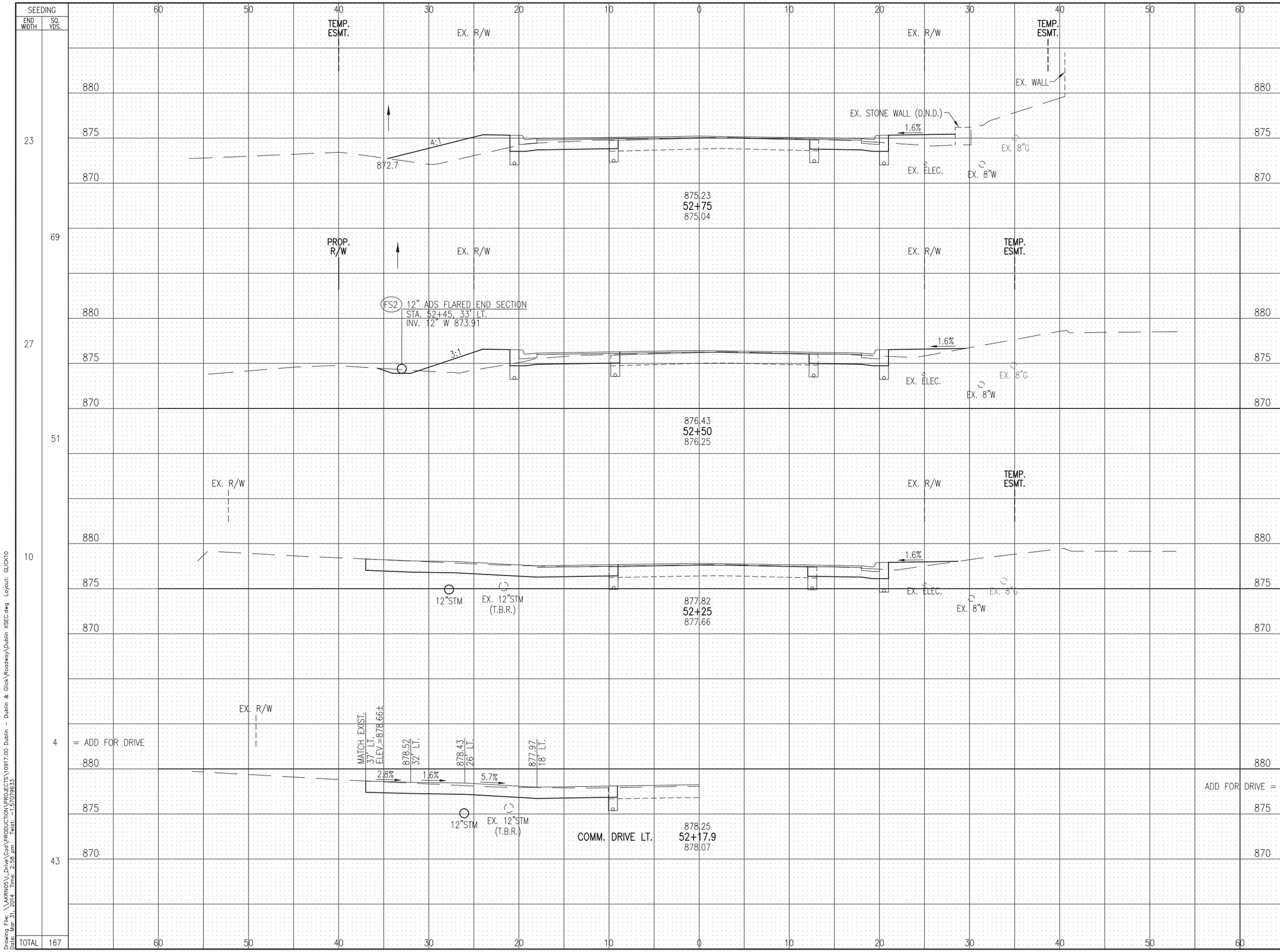
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
21	58	27.2	4.2	23	3
21	58	23.5	1.8	23	3
21	60	25.6	5.0	23	6
22	58	24.8	6.9	24	6
TOTAL	234	TOTAL		93	18

CALCULATED LMO
CHECKED KJG

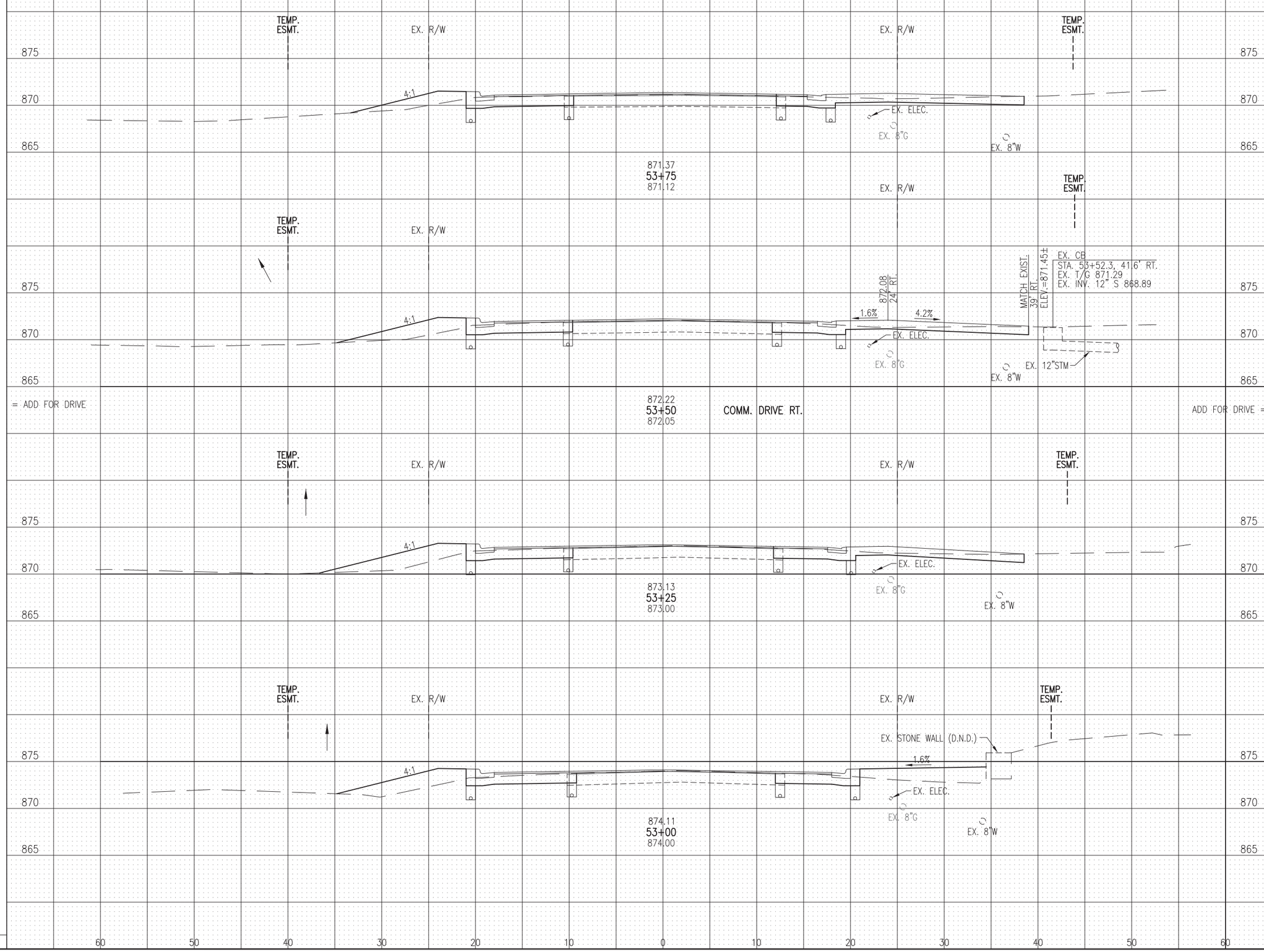
CROSS SECTIONS - GLICK ROAD
STA. 51+25 TO STA. 52+00

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK9
Date: Mar 31, 2014 Time: 2:58 pm Twist: -1.57079633


SEEDING
END WIDTH
SQ. YDS.
23
69
27
51
10
4
43
TOTAL 167
TEMP. ESMT.
EX. R/W
PROP. R/W
EX. WALL
EX. STONE WALL (D.N.D.)
1.6%
4:1
872.7
EX. 8"G
EX. ELEC.
EX. 8"W
875.23
52+75
875.04
FS2 12" ADS FLARED END SECTION
STA. 52+45, 33' LT.
INV. 12" W 873.91
3:1
876.43
52+50
876.25
12"STM
EX. 12"STM (T.B.R.)
877.82
52+25
877.66
MATCH EXIST. 37' LT. ELEV.=878.66±
878.52 32' LT.
878.43 26' LT.
877.97 18' LT.
2.8%
5.7%
= ADD FOR DRIVE
ADD FOR DRIVE =
COMM. DRIVE LT.
878.25
52+17.9
878.07
880
875
870
END AREA
CUT
FILL
19.1
31.7
20.0
19.8
41.6
3.7
TOTAL
VOLUME
CUT
FILL
18
24
29
11
0
0
32
4
TOTAL
79
39
CALCULATED LMO
CHECKED KJG
CROSS SECTIONS - GLICK ROAD
STA. 52+17.9 TO STA. 52+75
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS
50
76
Drawing File: \\AKRN05\L_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK10
Date: Mar 31, 2014 Time: 2:58 pm Twist: -1.57079633

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
16	108	30.7	10.7	55	27
0				0	0
17	67	29.2	18.9	23	27
31	75	20.0	39.4	18	33
TOTAL	250	TOTAL		96	87

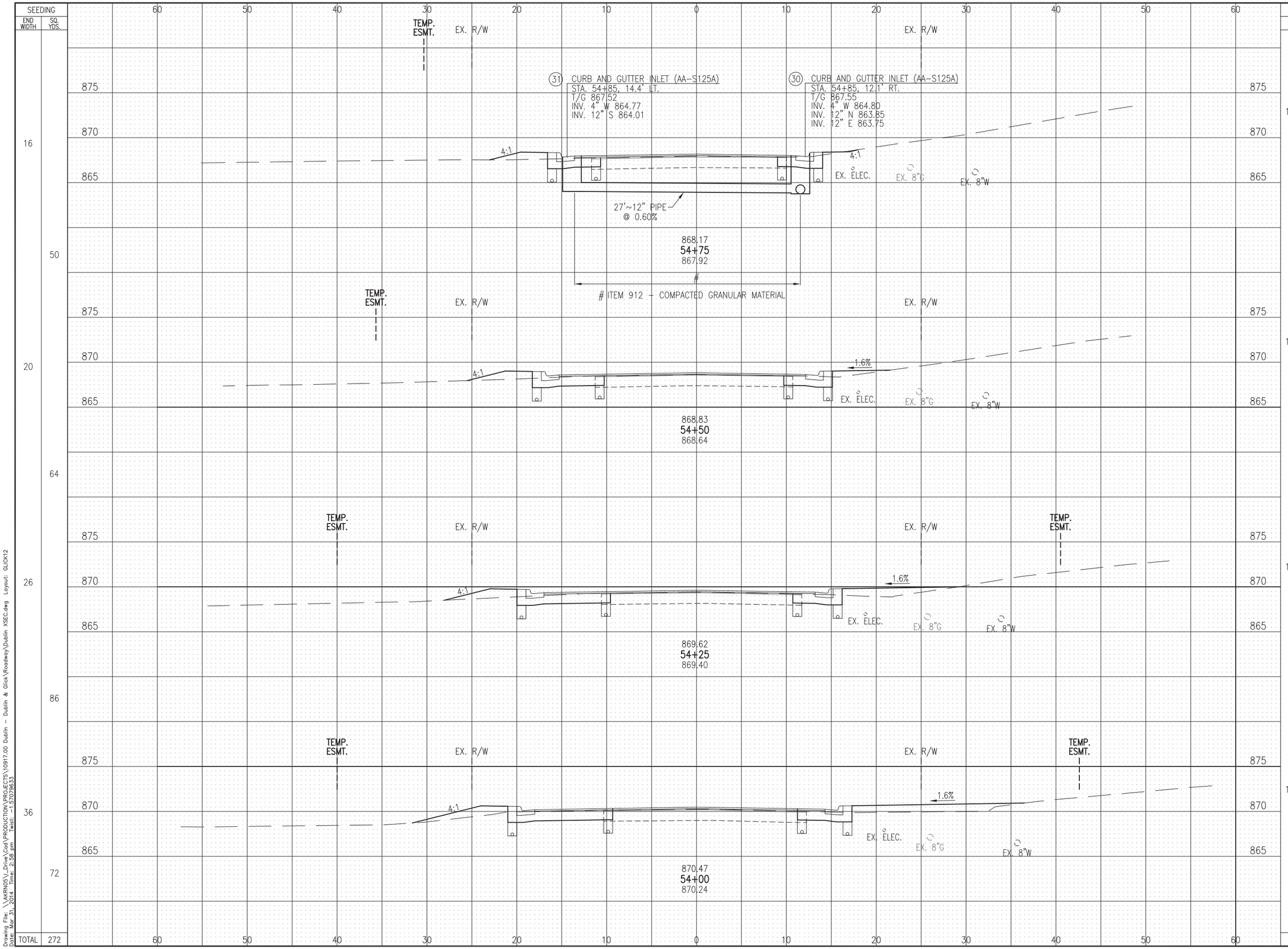


CALCULATED LMO
CHECKED KJG

CROSS SECTIONS - GLICK ROAD
STA. 53+00 TO STA. 53+75

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK11
Date: Mar 31, 2014 Time: 2:58 pm Twist: -1.57079633


SEEDING
END WIDTH
SQ. YDS.
16
50
20
64
26
86
36
72
TOTAL 272
TEMP. ESMT.
EX. R/W
(31) CURB AND GUTTER INLET (AA-S125A)
STA. 54+85, 14.4' LT.
T/G 867.52
INV. 4" W 864.77
INV. 12" S 864.01
(30) CURB AND GUTTER INLET (AA-S125A)
STA. 54+85, 12.1' RT.
T/G 867.55
INV. 4" W 864.80
INV. 12" N 863.85
INV. 12" E 863.75
875
870
865
4:1
EX. ELEC.
EX. 8"G
EX. 8"W
27'~12" PIPE
@ 0.60%
868.17
54+75
867.92
ITEM 912 - COMPACTED GRANULAR MATERIAL
1.6%
868.83
54+50
868.64
869.62
54+25
869.40
870.47
54+00
870.24
END AREA
CUT
FILL
VOLUME
CUT
FILL
12.3
4.2
12
5
14.5
6.9
14
10
16.3
13.8
16
16
18.6
20.4
23
14
TOTAL
65
45
CALCULATED LMO
CHECKED KJG
CROSS SECTIONS - GLICK ROAD
STA. 54+00 TO STA. 54+75
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS
52
76
Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin XSEC.dwg Layout: GLICK12
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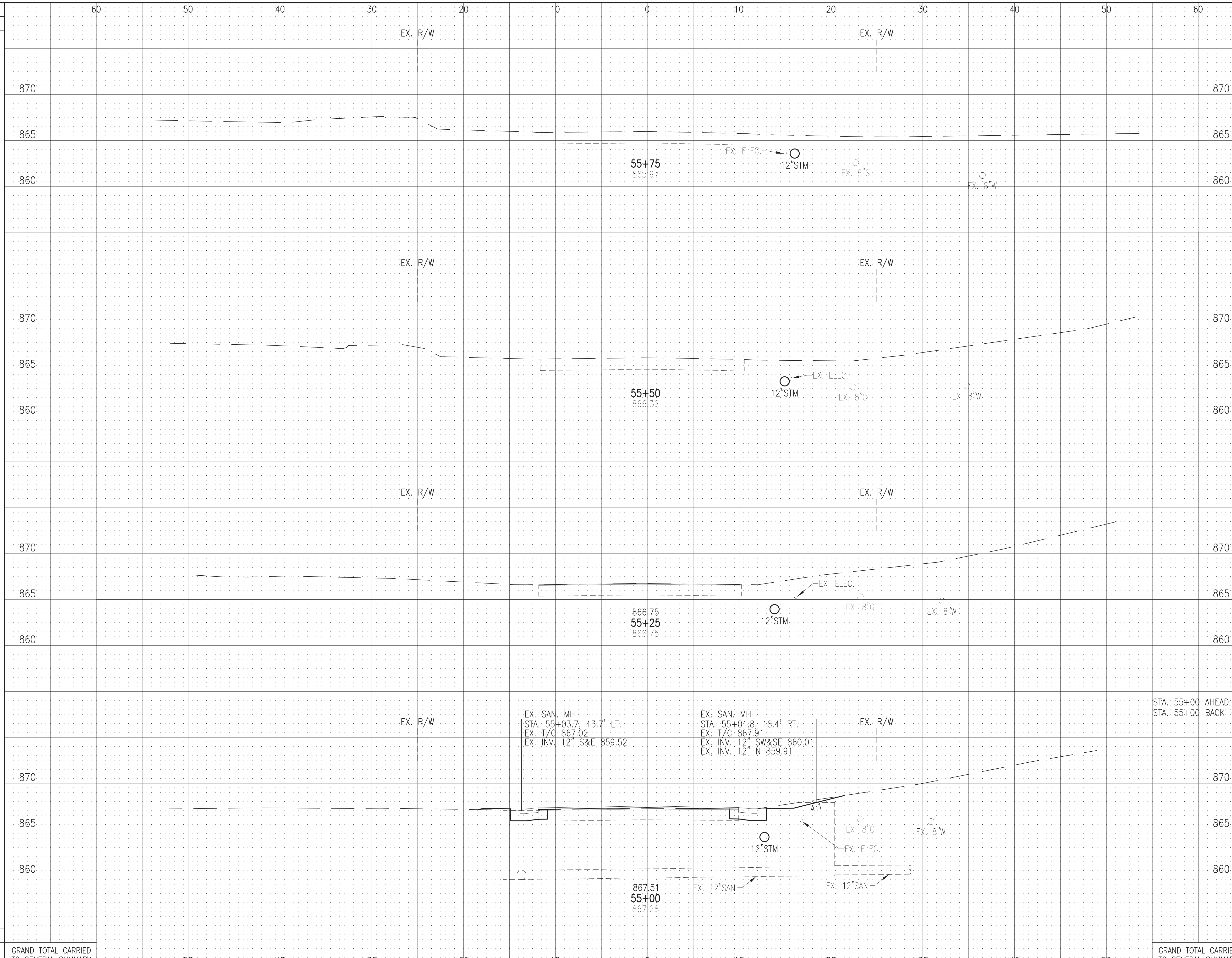
CROSS SECTIONS - GLICK ROAD
STA. 55+00 TO STA. 55+75

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

SEEDING	
END WIDTH	SQ. YDS.
0	
	6
15	
	43
TOTAL	49
	6585

GRAND TOTAL CARRIED TO GENERAL SUMMARY



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
STA. 55+00 AHEAD =	0	0		
STA. 55+00 BACK =	11.6	0.4		
			11	2
TOTAL			11	2
GRAND TOTAL CARRIED TO GENERAL SUMMARY			3175	1689

CALCULATED LMO
CHECKED KJG

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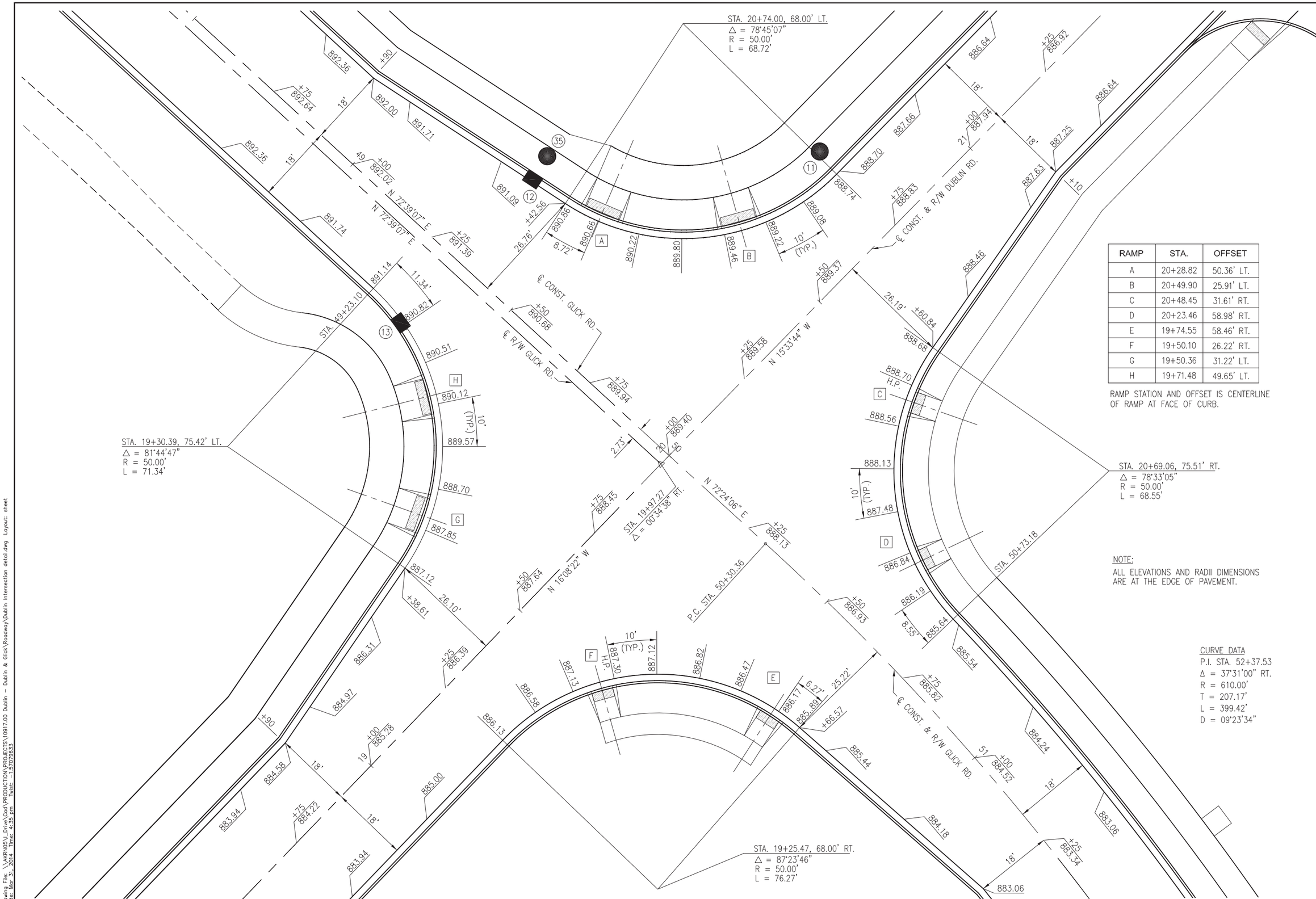

RAMP	STA.	OFFSET
A	20+28.82	50.36' LT.
B	20+49.90	25.91' LT.
C	20+48.45	31.61' RT.
D	20+23.46	58.98' RT.
E	19+74.55	58.46' RT.
F	19+50.10	26.22' RT.
G	19+50.36	31.22' LT.
H	19+71.48	49.65' LT.

RAMP STATION AND OFFSET IS CENTERLINE OF RAMP AT FACE OF CURB.

NOTE:

ALL ELEVATIONS AND RADII DIMENSIONS ARE AT THE EDGE OF PAVEMENT.

CURVE DATA

P.I. STA. 52+37.53
Δ = 37°31'00" RT.
R = 610.00'
T = 207.17'
L = 399.42'
D = 09°23'34"

HORIZONTAL SCALE IN FEET 0 5 10 20

CALCULATED KJG
CHECKED LMO

INTERSECTION DETAIL

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRNGS\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Dublin intersection detail.dwg Layout: sheet
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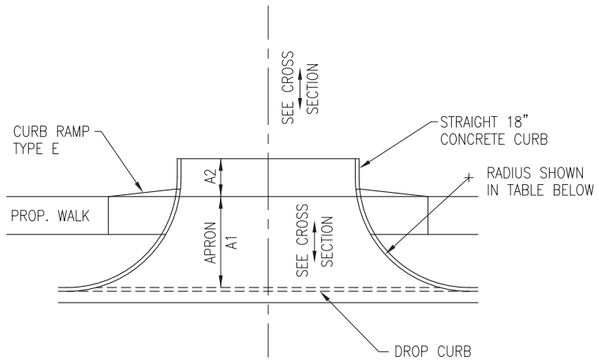
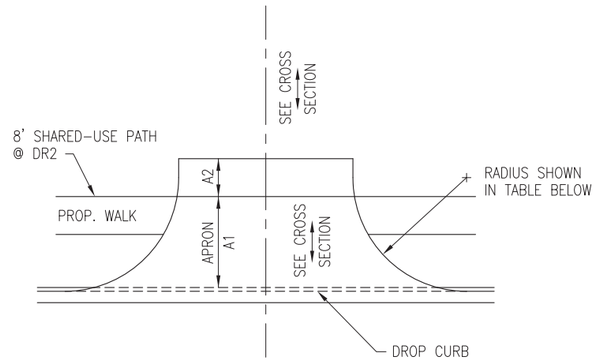
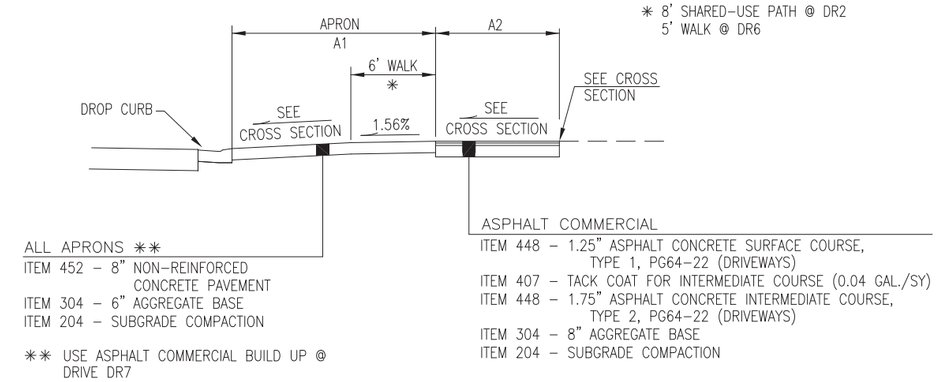


PLAN
CURBED DRIVEWAY



PLAN
UNCURBED DRIVEWAY



PROFILE

REF. NO.	LOCATION	STATION	SIDE	θ	W	TIE-IN OFFSET	RADIUS	APRON A1	BEYOND APRON A2	DRIVEWAY COMPOSITION	SERVICE TYPE	204 SUBGRADE COMPACTION	304 AGGREGATE BASE 6"	304 AGGREGATE BASE 8"	407 TACK COAT FOR INTERMEDIATE COURSE (0.04 GAL./S.Y.)	448 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (MEDIUM TRAFFIC), PG64-22 (DRIVEWAYS)	448 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (MEDIUM TRAFFIC), PG64-22, (DRIVEWAYS)	452 8" NON-REINFORCED CONCRETE PAVEMENT	609 STRAIGHT 18" CONCRETE CURB
					FT.			SQ. FT.	SQ. FT.			SQ. YD.	CU. YD.		GAL.	TON	TON	SQ. YD.	FT.
DR1	DUBLIN RD.	21+93.2	RT.	90	33.9	60.00'	25'	705	989	ASPHALT	COMM.	188.2	13.1	24.4	4.4	7.6	10.7	78.3	58
DR2	DUBLIN RD.	22+31.3	LT.	90	24.1	40.00'	15'	463	121	ASPHALT	COMM.	64.9	8.6	3.0	0.5	0.9	1.3	51.4	–
DR3	DUBLIN RD.	22+48.7	RT.	90	12.8	92.00'	15'	377	780	ASPHALT	COMM.	128.6	7.0	19.3	3.5	6.0	8.4	41.9	–
DR4	DUBLIN RD.	24+28.7	RT.	90	11.2	42.00'	25'	355	170	ASPHALT	COMM.	58.3	6.6	4.2	0.8	1.3	1.8	39.4	–
DR5	DUBLIN RD.	26+83.5	RT.	90	36	45.00'	15'	505	675	ASPHALT	COMM.	131.1	9.4	16.7	3.0	5.2	7.3	56.1	38
DR6	GLICK RD.	47+53.5	LT.	90	24	37.80'	25'	499	180	ASPHALT	COMM.	75.4	9.2	4.4	0.8	1.4	1.9	55.4	–
DR7	GLICK RD.	53+50	RT.	90	81.8	39.00'	50'	2192	–	ASPHALT	COMM.	243.6	–	54.1	9.7	16.9	23.7	–	84
								TOTAL CARRIED TO GENERAL SUMMARY				890	180		23	39	55	323	180

CALCULATED LAM
CHECKED KJG

DRIVE DETAILS

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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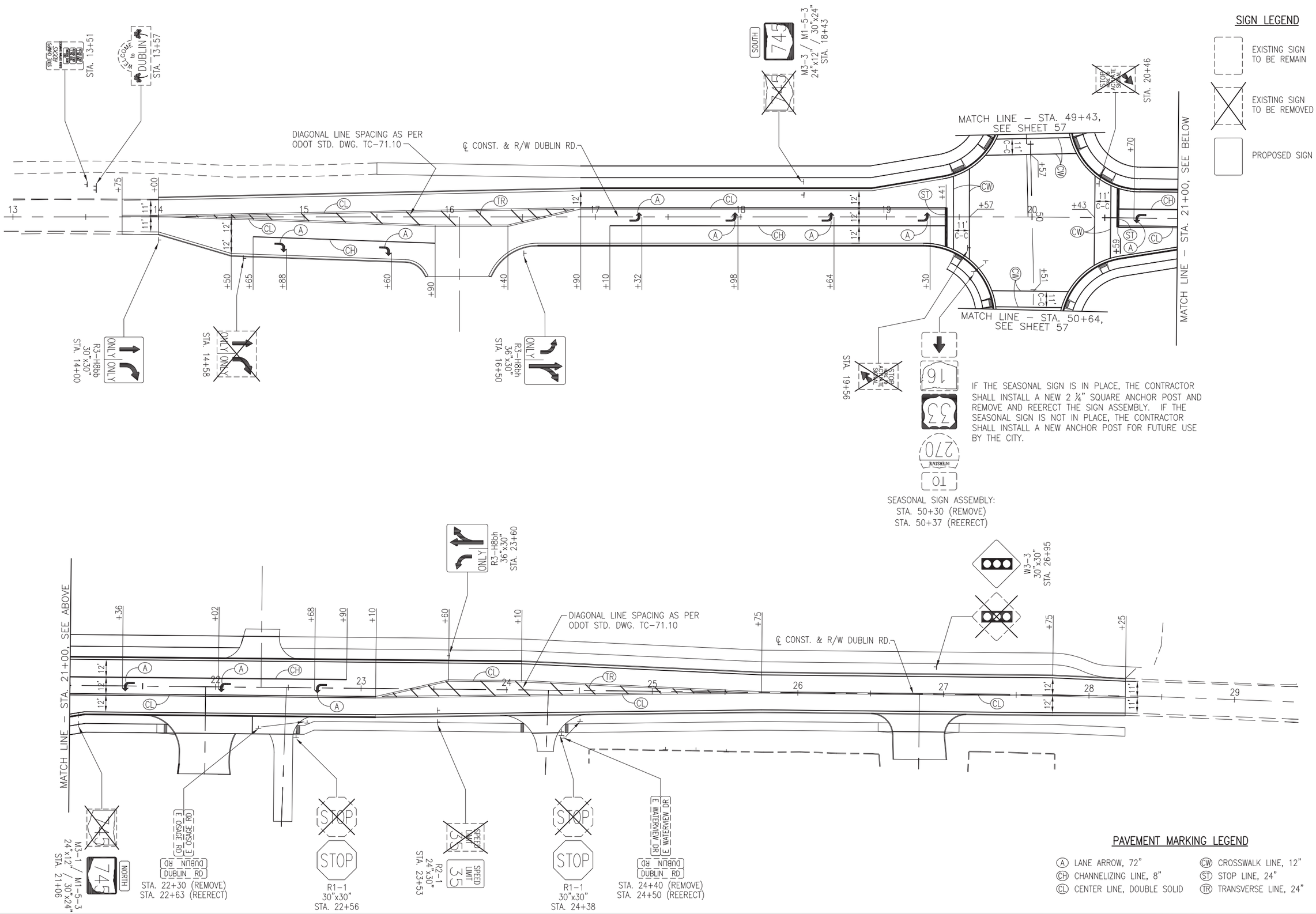

SIGNING AND PAVEMENT MARKING PLAN
DUBLIN ROAD

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: \\AKRNOS\J_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\Roadway\Dublin Signing&Pavemark.dwg Layout: DUBLIN1
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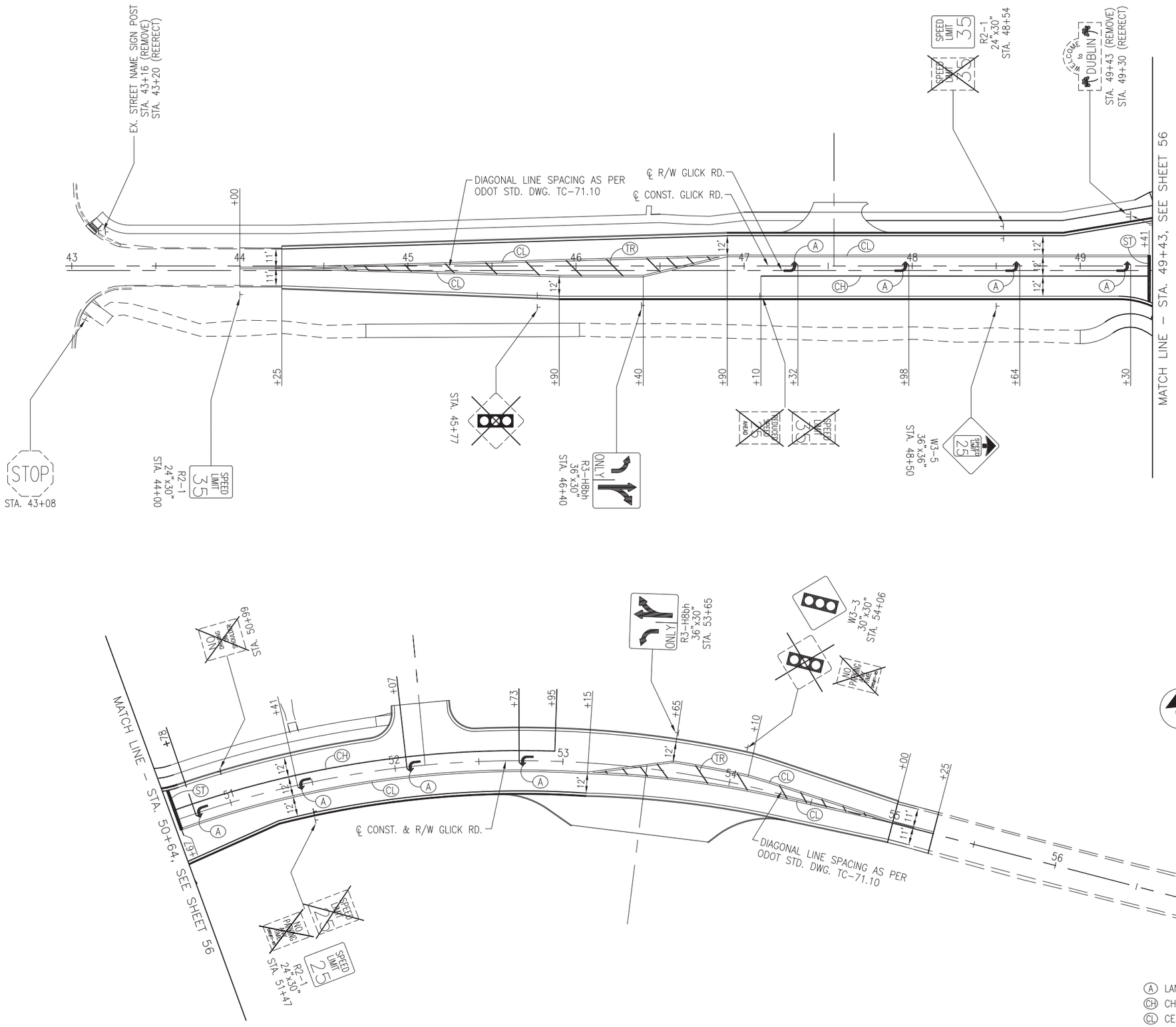

SIGN LEGEND

- EXISTING SIGN TO BE REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- (A) LANE ARROW, 72"
- (CH) CHANNELIZING LINE, 8"
- (CL) CENTER LINE, DOUBLE SOLID
- (CW) CROSSWALK LINE, 12"
- (ST) STOP LINE, 24"
- (TR) TRANSVERSE LINE, 24"

0 15 30 60
HORIZONTAL SCALE IN FEET

CALCULATED LMO
CHECKED KJG

SIGNING & PAVEMENT MARKING PLAN
GLICK ROAD

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\Roadway\Dublin Signing&Pavemark.dwg Layout: GLICK1
Date: Mar 31, 2014 Time: 5:00 pm Twist: -1.57079633

GENERAL TRAFFIC

THE CONTRACTOR SHALL FURNISH AND INSTALL TRAFFIC SIGNAL EQUIPMENT, IN CONFORMANCE WITH THE CITY OF DUBLIN SPECIFICATIONS, INCLUDING THE SPECIFICATIONS OF THESE PLANS AS WELL AS IN CONFORMANCE WITH THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AND ALL SUPPLEMENTAL SPECIFICATIONS.

THE SIGNAL CONTROLLER(S), CONFLICT MONITOR(S), TERMINAL FACILITIES, FLASHERS, AND LOAD SWITCHES SHALL PREFERABLY BE OF THE SAME MANUFACTURER. ALL LOAD SWITCHES AND INTERFACE RELAYS SHALL BE FURNISHED WITH INPUT SIDE LED'S.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL EQUIPMENT INSTALLED AS PART OF THE CONTRACT SHALL OPERATE SATISFACTORY FOR A PERIOD OF NINETY (90) DAYS FOLLOWING COMPLETION OF THE TEN (10) DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATIONS, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS FROM THE SAME MANUFACTURER. MATERIAL AND LABOR COSTS INCURRED IN CORRECTING THE UNSATISFACTORY OPERATIONS SHALL BE BORNE BY THE CONTRACTOR. CUSTOMARY MANUFACTURER'S GUARANTEE FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE CITY OR MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT. THE COST OF GUARANTEEING THE TRAFFIC CONTROL EQUIPMENT SHALL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SIGNAL INSTALLATION.

POWER SUPPLY FOR TRAFFIC SIGNALS

POWER SERVICE SHALL BE OBTAINED FROM AMERICAN ELECTRIC POWER (AEP) COMPANY. THE CONTRACTOR SHALL CONTACT GREG ZORICH AT (614) 883-7935 TO COORDINATE NEW POWER SERVICE. THE PROPOSED GROUND MOUNTED TRANSFORMER FOR THE POWER SUPPLY IS SHOWN ON THE PLANS. SERVICE SHALL BE ROUTED UNDERGROUND FROM THE POWER SOURCE TO THE DISCONNECT SWITCH. NOTE THAT THE CURRENT POWER SERVICE LOCATION IS DIFFERENT THAN PROPOSED. AEP CURRENTLY SUPPLIES POWER TO THE EXISTING SIGNAL FOR ODOT.

WIRING DIAGRAMS

TWO (2) EACH WIRING DIAGRAMS AND TWO (2) EACH SERVICE/OPERATION MANUALS FOR EACH DIFFERENT PIECE OF EQUIPMENT SHALL BE PROVIDED. A HEAVY CLEAR PLASTIC ENVELOPE ATTACHED TO THE INSIDE OF THE CABINET DOOR SHALL BE PROVIDED FOR STORING WIRING DIAGRAMS. (MINIMUM OF 9" BY 12" IN SIZE)

ITEM 614, MAINTAINING TRAFFIC

FOR MAINTENANCE OF TRAFFIC DETAILS REFER TO MAINTENANCE OF TRAFFIC NOTES.

ITEM 625, LUMINAIRE, MISC.: 80 WATT LED, TYPE II MEDIUM, AS PER PLAN

IN ADDITION TO THE ODOT AND CITY OF DUBLIN SPECIFICATIONS, THE FOLLOWING SHALL APPLY:

THE LUMINAIRE TO BE PROVIDED SHALL BE CREE BRAND FIXTURE TYPE 80 LED/TYPE II MEDIUM OR APPROVED EQUAL. THE EXTERIOR FINISH OF THE LUMINAIRE SHALL HAVE A DARK BRONZE FINISH (CREE LIGHTING CATALOG NO. ARE-EDG-2M-DA-08-D-UL-BZ-525-40K OR APPROVED EQUAL). SHOP DRAWINGS MUST BE SUBMITTED TO THE DUBLIN CITY ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS.

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT PRICE BID PER EACH INCLUDING ATTACHMENT HARDWARE, COMPLETE AND IN PLACE. ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 625, TRENCH, AS PER PLAN

IN ADDITION TO THE ODOT ITEM 625, THE TRENCH SIZE, DEPTH, AND BACKFILL SHALL MEET CITY SPECIFICATIONS, WHICH INCLUDES 3 INCH YELLOW PLASTIC CAUTION TAPE. IT IS ALSO THE INTENT OF THIS ITEM THAT CONDUIT TO BE LOCATED UNDER NEW ASPHALT/CONCRETE SHALL BE INSTALLED PRIOR TO PLACEMENT OF THE ASPHALT/CONCRETE, AND THAT COMPACTED ITEM 304 BACKFILL, OR ITEM 636 TYPE 2 OR 3 SHALL BE USED AT THOSE LOCATIONS (AS PER CITY SPECIFICATIONS). NO CONCRETE ENCASEMENT SHALL BE PROVIDED. THE COST OF THE BACKFILL SHALL BE INCLUDED IN THE UNIT COST BID FOR THIS ITEM. THE COST OF THE PLASTIC CAUTION TAPE SHALL BE PAID AS A SEPARATE ITEM.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT.

ITEM 625, PULL BOX, 713.08, 18", AS PER PLAN

IN ADDITION TO THE SPECIFICATIONS OF ODOT ITEM 625, THE UNIT SUPPLIED AND INSTALLED SHALL BE A HUBBELL POWER SYSTEMS, PART NUMBER QUAZITE PG1118BA18 OR APPROVED EQUAL. OVERALL DIMENSIONS OF THE PULL BOX SHALL BE 11" WIDE BY 18" LONG BY 18" DEEP. "TRAFFIC" SHALL BE ON RAISED LETTERS OR EMBOSSED LETTERS ON THE PULL BOX COVER.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID, COMPLETE, IN PLACE AND ACCEPTED.

ITEM 625, PULL BOX, 713.08, 24", AS PER PLAN

IN ADDITION TO THE SPECIFICATIONS OF ODOT ITEM 625, THE UNIT SUPPLIED AND INSTALLED SHALL BE A HUBBELL POWER SYSTEMS, PART NUMBER QUAZITE PG2424BA24 OR APPROVED EQUAL. OVERALL DIMENSIONS OF THE PULL BOX SHALL BE 24" WIDE BY 24" LONG BY 24" DEEP. "TRAFFIC" SHALL BE ON RAISED LETTERS OR EMBOSSED LETTERS ON THE PULL BOX COVER.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID, COMPLETE, IN PLACE AND ACCEPTED.

ITEM 625, PULL BOX, 713.08, 36", AS PER PLAN

IN ADDITION TO THE SPECIFICATIONS OF ODOT ITEM 625, THE UNIT SUPPLIED AND INSTALLED SHALL BE A HUBBELL POWER SYSTEMS, PART NUMBER QUAZITE PG3636BA36 OR APPROVED EQUAL. OVERALL DIMENSIONS OF THE PULL BOX SHALL BE 36" WIDE BY 36" LONG BY 36" DEEP. "TRAFFIC" SHALL BE ON RAISED LETTERS OR EMBOSSED LETTERS ON THE PULL BOX COVER.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID, COMPLETE, IN PLACE AND ACCEPTED.

ITEM 625, GROUND ROD, AS PER PLAN

IN ADDITION TO ITEMS 625 AND 725, THIS ITEM SHALL ALSO INCLUDE A "CAD" WELD WIRE CONNECTION AT THE GROUND ROD (AS PER CITY OF DUBLIN SPECIFICATIONS), THE COST OF WHICH SHALL BE INCLUDED IN THE GROUND ROD INSTALLATION.

IT IS THE INTENT OF THIS ITEM THAT THE NO.4 AWG GROUNDING CONDUCTOR BE INSTALLED IN THE 3/4" CONDUIT BETWEEN THE GROUND ROD AND THE ENCLOSURE GROUND BAR, AS PER CITY OF DUBLIN SPECIFICATIONS.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID PER EACH, COMPLETE AND IN PLACE, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 625, CONDUIT, 6", 725.05, AS PER PLAN

IN ADDITION TO ITEM 625 AND 725 OF THE ODOT STANDARD SPECIFICATIONS, THE CONDUIT SHALL BE SCHEDULE 80 PVC CONDUIT.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID, COMPLETE AND IN PLACE.

ITEM 625, PLASTIC CAUTION TAPE, AS PER PLAN

IN ADDITION TO ITEM 625 AND 725 OF THE ODOT STANDARD SPECIFICATIONS, THE FOLLOWING SHALL ALSO APPLY:

THE TAPE SHALL BE THREE (3") INCH YELLOW PLASTIC CAUTION TAPE. THE TAPE SHALL BE INSTALLED OVER ALL 725.05 CONDUIT, OUTSIDE OF DRIVEWAYS AND ROADWAYS. AS PER CITY SPECIFICATIONS.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID FOR THIS ITEM, COMPLETE AND IN PLACE.

ITEM 632, CABLE AND WIRE

IN ADDITION TO ODOT STANDARD SPECIFICATION 632 AND 725 THE FOLLOWING SHALL ALSO APPLY:

ALL WIRE SPLICES SHALL BE WATERPROOF SPLICES, BUTT SPLICES ARE NOT ACCEPTABLE.

SIGNAL CABLE JACKETS SHALL NOT BE REMOVED OR PULLED BACK LEAVING EXPOSED WIRES OR COLORED JACKETS OUTSIDE OF SIGNAL HEADS. JACKETS ARE TO BE ONLY PULLED BACK ONCE CABLE HAS BEEN PULLED INTO SIGNAL HEAD. THREE FEET OF SLACK IS REQUIRED (DRIP LOOP) IN CABLE BETWEEN SIGNAL HEADS.

A SEPARATE 7 CONDUCTOR SIGNAL WIRE SHALL BE USED FOR ALL 5 SECTION SIGNAL HEADS. SIGNAL WIRE SHALL NOT BE SPLICED FROM A 3 SECTION SIGNAL HEAD TO A 5 SECTION HEAD.

ALL CABLES ENTERING AND EXITING A PULL BOX SHALL BE UNIQUELY COLOR CODED TO TRACE THE WIRE THROUGH THE INTERSECTION; COLORS SHALL BE NOTED ON SIGNAL PLANS IN THE SIGNAL CABINET.

632, REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH CMS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE STORED ON THE PROJECT FOR SALVAGE AND BE DELIVERED TO ODOT DISTRICT 6, 400 EAST WILLIAM STREET DELAWARE, OHIO, 43015-2199, IN ACCORDANCE WITH THE LISTING GIVEN ON HEREIN ON SHEET 61. THE ODOT CONTACT PERSON FOR EQUIPMENT DELIVERY IS CHARLES "RYAN" CONRAD AT 740-833-8024 OR CHARLES.CONRAD@DOT.STATE.OH.US.

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ITEMS ON THE PROJECT NOT MARKED FOR SALVAGE AND DELIVERY TO THE LOCAL AGENCY AT NO ADDITIONAL COST TO THE PROJECT.

ITEM 632, POWER SERVICE, AS PER PLAN

ELECTRIC POWER SHALL BE OBTAINED FROM AEP AT THE LOCATIONS INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120/240 VOLTS AND SHALL BE UNMETERED.

POWER SERVICE FROM THE POWER SOURCE SHALL BE ROUTED IN A SEPARATE CONDUIT TO THE DISCONNECT SWITCH ON THE SIGNAL SUPPORT CLOSEST TO THE CONTROLLER (FLEX CONDUIT INSIDE A SIGNAL SUPPORT).

THE DISCONNECT SWITCH SHALL BE STAINLESS STEEL.

THE DISCONNECT SWITCH AND ENCLOSURE SHALL EACH INCLUDE A PADLOCK EQUAL TO MASTER NO. 4B KA OR WILSON BOHANNON 66D WITH LOCK BODY OF BRONZE OR BRASS. ALL PADLOCKS SHALL USE THE SAME KEY AND FOUR KEYS SHALL BE GIVEN TO THE CITY.

DISCONNECT SHALL BE GE HEAVY DUTY SAFETY SWITCH (MODEL NP1578000K) OR APPROVED EQUAL. LOCATION AND PLACEMENT OF DISCONNECT TO BE FIELD LOCATED BY CITY OF DUBLIN REPRESENTATIVE. TWO, ONE INCH RIGID CONDUITS SHALL BE INSTALLED ON THE BOTTOM OF THE DISCONNECT.

A TRACER WIRE SHALL BE INSTALLED WITH POWER FROM POWER SOURCE TO DISCONNECT AND CONTINUED INTO SIGNAL CABINET. TRACER WIRE SHALL BE IDENTIFIED IN THE TRANSFORMER, DISCONNECT, AND SIGNAL CABINET.

ALL STREET LIGHTS INSTALLED ON THE COMBINATION SIGNAL SUPPORTS SHALL BE WIRED TO A 120 VOLT CIRCUIT CONTROLLED AT THE SIGNAL CONTROLLER CABINET AT EACH INTERSECTION. THIS ITEM SHALL ALSO INCLUDE THE FOLLOWING:

1) INSTALL IN THE CONTROLLER CABINET A THIRD CIRCUIT BREAKER (30 AMP), AND A 2-POLE LIGHTING CONTRACTOR ON THE CABINET SIDE PANEL (ELECTRICALLY HELD, OPEN STYLE);

2) PHOTOCELL (3 POSITION ON-OFF-AUTO) RATED AS PER CITY SPECIFICATIONS, INSTALLED ON THE SIGNAL SUPPORT PROXIMATE TO THE SIGNAL CONTROLLER, INCLUDING ALL WIRING TO THE CONTROLLER; AND

3) ALL WIRING FOR LIGHTING TO BE CONTROLLED BY A SINGLE DISCONNECT SWITCH FOR THE SIGNAL. (TWO 30 AMP FUSES-ONE FOR LIGHTING, ONE FOR SIGNAL)

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID PER EACH, COMPLETE AND IN PLACE. ALL CONNECTIONS TESTED AND ACCEPTED.

CALCULATED AWH
CHECKED SDS

TRAFFIC SIGNAL GENERAL NOTES

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Signal Notes.dwg Layout: NOTES 1
Date: Apr 10, 2014 Time: 11:17 am Twist: -1.57079633

ITEM 632, VEHICULAR SIGNAL HEAD. (LED), BY SECTION, 12" LENS, 1-WAY, AS PER PLAN

IN ADDITION TO ITEM 632 AND 732 OF THE ODOT STANDARD SPECIFICATIONS, THE FOLLOWING SHALL ALSO APPLY:

THE VEHICULAR SIGNAL HEADS SHALL BE MADE OF POLYCARBONATE MATERIAL (YELLOW) AND SUPPLIED WITH CUT AWAY VISORS AND LOUVERED ALUMINUM VEHICULAR SIGNAL HEAD BACK PLATES. THE SIGNAL HEADS SHALL BE INSTALLED BY RIGID MOUNT TO THE MAST ARMS, AS PER TC-85.20 OF THE ODOT STANDARD CONSTRUCTION DRAWINGS. LEDS SHALL BE GE LIGHTING SOLUTIONS TYPE GTx OR APPROVED EQUAL FOR CIRCULAR; GT1 FOR ARROWS.

DRIP LOOPS FOR THE SIGNAL CABLE, BETWEEN THE MAST ARM SUPPORT AND THE SIGNAL HEAD ASSEMBLY, SHALL BE INSTALLED PER SCD TC-85.20 TO PREVENT WATER ENTRY INTO THE SIGNAL HEAD ASSEMBLY.

BACKPLATE ASSEMBLIES SHALL BE PROVIDED PER SCD TC-85.20, MINUS THE 2 INCH FLOURESCENT YELLOW REFLECTIVE BORDER REFERENCED IN NOTE # 10.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID FOR THIS ITEM, COMPLETE AND IN PLACE, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 632, SIGNAL SUPPORT FOUNDATION, AS PER PLAN

THE TOP OF FOUNDATIONS SHALL BE APPROXIMATELY ONE (1) INCH +/- ABOVE THE ADJACENT SIDEWALK DEPENDENT ON CROSS SLOPE AS SHOWN ON THE SCHEMATIC MAST ARM DETAIL ON SHEET 64. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE FOUNDATION ELEVATION PRIOR TO FOUNDATION INSTALLATION.

ITEM 633, CONTROLLER ITEM, MISC.: PEDESTRIAN SIGNAL SYSTEM

THE CONTRACTOR SHALL, UNDER THIS ITEM OF WORK, FURNISH AND INSTALL AN AUDIBLE - TACTILE PEDESTRIAN SIGNAL SYSTEM, MODEL NAME OF NAVIGATOR APS AND MANUFACTURED BY POLARA OR AN APPROVED EQUAL. THE PEDESTRIAN PUSHBUTTONS USED IN THE SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF ITEM 632, PEDESTRIAN PUSHBUTTONS AND APPLICABLE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT. THE AUDIBLE-TACTILE PEDESTRIAN SIGNAL SYSTEM SHALL CONSIST OF ALL ELECTRONIC CONTROL EQUIPMENT, MOUNTING HARDWARE, PUSH BUTTONS AND SIGNS, WHICH IS DESIGNED TO PROVIDE BOTH A PUSH BUTTON WITH A RAISED VIBRATING TACTILE ARROW ON THE PLUNGER, ALONG WITH A VARIETY OF AUDIBLE SOUNDS FOR DIFFERENT PEDESTRIAN SIGNAL FUNCTIONS. THE SYSTEM SHALL CONSIST OF A SINGLE 2-WIRE CONTROL UNIT, NINE (9) PEDESTRIAN PUSH BUTTON STATIONS (HOUSING COLOR SHALL BE YELLOW), AND A SINGLE HAND HELD INFRARED CONFIGURATOR DEVICE FOR PROGRAMMING THE SYSTEM SETTINGS. EIGHT PUSHBUTTON STATIONS WILL BE INSTALLED AT THE INTERSECTION. LOCATION AND PLACEMENT OF PUSHBUTTONS TO BE FIELD LOCATED BY THE ENGINEER. THE CONFIGURATOR AND ONE SPARE PEDESTRIAN PUSHBUTTON STATION SHALL BE DELIVERED TO THE ENGINEERING DIVISION (6555 SHIER-RINGS ROAD, DUBLIN, OH 43016) TO THE ATTENTION OF EAGAN FOSTER, CIVIL ENGINEER (614-410-4637).

THE PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID FOR EACH, COMPLETED AND IN PLACE INCLUDING ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 632, DETECTOR LOOP, AS PER PLAN

AS DESCRIBED IN THE LAST PARAGRAPH OF 632.11 OF THE 2008 ODOT CMS, ALL PROPOSED DETECTOR LOOPS SHALL BE SAWED AND EMBEDDED WITH SEALANT IN A SUBSURFACE COURSE WITH SUBSEQUENT COVERING BY THE SURFACE COURSE. FOR THE REPLACMENT OF EXISTING LOOP DETECTORS, ALL ASPHALT MILLING OPERATIONS REMOVING THE WEAR COURSE SHALL BE COMPLETE BEFORE CUTTING NEW DETECTOR LOOPS IN THE INTERMEDIATE COURSE OF EXISTING PAVEMENT. NO LOOP DETECTORS SHALL BE VISIBLE FROM THE ROADWAY SURFACE.

RIGID 1" CONDUIT SHALL BE INSTALLED UNDER CURB BETWEEN THE LOOP LEAD IN CABLE AND PULLBOX FOR LOOP CONNECTION INTO SIGNAL CABINET.

ITEM 632, PEDESTRIAN SIGNAL HEAD, (LED), (COUNTDOWN), TYPE D2, AS PER PLAN

IN ADDITION TO ODOT ITEMS 632 AND 732 OF THE ODOT CMS, THE FOLLOWING SHALL ALSO APPLY:

THE PEDESTRIAN SIGNAL HEADS SHALL BE MADE OF POLYCARBONATE MATERIAL AND SHALL UTILIZE LED DISPLAYS FOR THE HAND/PERSON AND COUNTDOWN LEGENDS AS NOTED ON THE PLANS (GE LIGHTING SOLUTIONS TYPE GT1, MODEL NO. PS7-CFF1-26A OR APPROVED EQUAL). LOCATION AND PLACEMENT OF PEDESTRIAN SIGNAL HEADS TO BE FIELD LOCATED BY THE ENGINEER.

THE PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID FOR EACH, COMPLETED AND IN PLACE INCLUDING ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 632, COMBINATION SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, WITH MAST ARMS, BY SIZE, AS PER PLAN
ITEM 632, PEDESTRIAN PEDESTAL, 18', AS PER PLAN

IN ADDITION TO ODOT ITEM 632, THE COMBINATION SUPPORTS, MAST ARMS AND PEDESTRIAN PEDESTAL POLES SHOWN ON THE PLANS SHALL BE NON-FLUTED POLE (ARM LENGTH AS DESIGNATED ON THE PLANS), MANUFACTURED BY VALMONT OR AN APPROVED EQUAL. THE SUPPORTS SHALL BE MANUFACTURED TO INDUSTRY STANDARDS USING THE SIGNAL SUPPORT INFORMATION PROVIDED IN THESE PLANS. ALL SUPPORTS AND PEDESTALS SHALL HAVE THE FOLLOWING FEATURES AND ADHERE TO THE FOLLOW REQUIREMENTS:

1. THE CONTRACTOR SHALL VERIFY THE ANCHOR BOLT CIRCLE, ANCHOR BOLT DIAMETER, AND ORIENTATION PATTERN WITH THE SIGNAL SUPPORT MANUFACTURER.
2. THE POLE AND DESIGN SHALL COMPLY WITH 2004 AASHTO DESIGN CRITERIA AND ALL OTHER APPLICABLE ODOT STANDARDS.
3. THE MANUFACTURER SHALL BE RESPONSIBLE FOR VERIFYING THE POLE DESIGN, AND SHALL PREPARE SHOP DRAWINGS AND STRUCTURAL DESIGN CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER. THE SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CITY FOR APPROVAL PRIOR TO FABRICATION.
4. IT IS THE INTENT OF THESE PLANS THAT THE POLES, MAST ARMS, AND SIGN BRACKETS ATTACHED TO THE POLE SHALL MATCH THE CITY OF DUBLIN STANDARD FOR POLE PAINT COLOR FOR (DUBLIN BRONZE). PRIOR TO SHIPPING, THE POLES, MAST ARMS, AND ALL POLE HARDWARE AND SIGN BRACKETS ATTACHED TO THE POLE SHALL BE FACTORY PRIME COATED AND FINISHED. IF DURING TRANSPORTATION, ERECTION, INSTALLATION OF SIGN HARDWARE OR AT ANYTIME BEFORE FINAL ACCEPTANCE THE PAINTED SURFACES ARE SCRATCHED OR MARRED IN ANY MANNER, THE CONTRACTOR SHALL APPLY "TOUCHUP" PAINT OF THE SAME TYPE AS SPECIFIED ABOVE TO THE AFFECTED AREAS.
5. ALL COUPLINGS, FITTINGS, AND ATTACHMENT HARDWARE NECESSARY FOR BOLTING THE DISCONNECT SWITCH TO THE SIGNAL SUPPORT SHALL BE FIELD DRILLED AND PROVIDED BY THE CONTRACTOR.
6. THE LUMINAIRES INSTALLED ON THE TOP OF THE SUPPORT SHALL BE AS SPECIFIED IN THESE PLANS AND SHALL BE PAID FOR SEPARATELY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND COORDINATING WITH THE POLE MANUFACTURER AND THE LUMINAIRE MANUFACTURER THE ATTACHMENT REQUIREMENTS FOR INSTALLING THE LUMINAIRE ON THE MAST ARM SUPPORT.
8. MANUFACTURER'S FACTORY QUALITY CONTROL FOR VERTICAL POLES SHALL INCLUDE BUFFING THE VERTICAL SEAM WELD TO COSMETICALLY BLEND. MANUFACTURER SHALL GRIND THE VERTICAL WELD SEAM FLUSH WITH PARENT MATERIAL.
9. PEDESTRIAN PEDESTAL POLES SHALL BE ALUMINUM AND FINISHED TO MATCH THE COMBINATION SUPPORTS.
10. THE FINISHING PROCESS SHALL BE VALMONT DECA-BOND F-575B PROVIDING A 5 YEAR FINISH WARRANTY OR APPROVED EQUAL PROCESS. THE FINISH SYSTEM SHALL BE A POWDER COAT FINISH.
11. PAINT CHIP SAMPLES AND SHOP DRAWINGS FOR ALL COMPONENTS MUST BE SUBMITTED TO THE DUBLIN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS.
12. THE CONTRACTOR SHALL COORDINATE WITH CITY OF DUBLIN PERSONNEL TO BE ON SITE PRIOR TO DRILLING/CUTTING OR WELDING INTO SIGNAL SUPPORTS WHICH INCLUDES BUT IS NOT LIMITED TO PLACEMENT OF PEDESTRIAN PUSH BUTTONS AND INSTALLATION OF DISCONNECT SWITCH.

NOTE: COMBINATION SUPPORTS AND MAST ARMS AND PEDESTRIAN PEDESTALS TO BE PROVIDED BY THE CITY OF DUBLIN. THE CONTRACTOR SHALL PROVIDE DELIVERY AND INSTALLATION SERVICES.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID, FOR LABOR TO INSTALL THE PROVIDED MATERIAL, COMPLETE AND IN PLACE, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM 633, CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN

IN ADDITION TO ODOT STANDARD SPECIFICATIONS 633 AND 733, THE FOLLOWING SHALL ALSO APPLY:

1. THE SIGNAL CONTROLLER, CONFLICT MONITORS, TERMINAL FACILITIES, AND LOAD SWITCHES SHALL BE FROM THE SAME SUPPLIER. ALL LOAD SWITCHES AND INTERFACE RELAYS SHALL BE FURNISHED WITH INPUT/OUTPUT SIDE LED'S. THE CONTROLLERS AND CABINETS SUPPLIED SHALL BE CAPABLE OF COMPLETE ACTRA SYSTEM OPERATION.

2. THE CONTROLLER SUPPLIED SHALL BE EAGLE TRAFFIC CONTROL SYSTEMS EPAC300 SERIES MODEL 3808M50 WITH AN INTERNAL FIBER OPTICS COMMUNICATIONS MODEM, OR APPROVED EQUAL AND PROVIDED WITH OTHER EQUIPMENT AS NECESSARY FOR FULL FIBER OPTIC COMMUNICATIONS. THE CABINETS SHALL BE WIRED FOR THE PHASING SHOWN ON THE PLANS AND SHALL BE CAPABLE OF USING ALL PHASES OF THE CONTROLLER WITH THE ADDITION OF LOOP DETECTORS AND FIELD WIRING.

3. THE CONTROLLER CABINET TYPE SHALL BE A P-58UPS (SIEMENS/EAGLE SIZE P-UPS CABINET CATALOG NUMBER ELS1014) DOUBLE DOOR CONTROLLER AND BATTERY BACKUP ENCLOSURE TYPE CABINET OR APPROVED EQUAL. THE CONTROLLER DOOR SHALL BE FURNISHED WITH HINGES ALONG THE LEFT HAND SIDE OF DOOR. THE BATTERY BACKUP DOOR SHALL BE FURNISHED WITH HINGES ALONG THE RIGHT HAND SIDE OF DOOR. THE CABINET SHALL PROVIDE A SINGLE ENCLOSURE TO HOUSE THE CONTROLLER (WITH ALL ACCESSORIES) AND THE COMPLETE BATTERY BACKUP SYSTEM WITH EACH COMPARTMENT ACCESSIBLE BY A SEPARATE DOOR.

4. THE CABINET EXTERIOR SHALL BE A POWDER COAT PAINTED TO MATCH THE CITY OF DUBLIN STANDARD FOR POLE COLOR (DUBLIN BRONZE). POLYESTER PAINT FINISHED TO A GLOSS OF 35% (AT 60 DEG.). PAINT CHIP SAMPLES MUST BE SUBMITTED TO THE DUBLIN CITY ENGINEER FOR REVIEW AND APPROVAL ALONG WITH SHOP DRAWINGS FOR ALL COMPONENTS PRIOR TO ORDERING MATERIALS.

5. THE INTERIOR OF THE CABINET SHALL BE POWDER COATED GLOSS WHITE. A PAINT CHIP SAMPLE SHALL BE SUBMITTED TO THE DUBLIN CITY ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIALS.

6. THE CABINET SHALL COME EQUIPPED WITH A CABINET DETECTOR RACK (CDR) AND ENOUGH FOUR CHANNEL DETECTOR CARDS TO OPERATE THE SIGNAL WITH SOFTWARE FOR UP TO SIXTEEN DETECTORS. DETECTORS SHALL BE CANOGA 900 SERIES OR APPROVED EQUAL.

7. A SECOND VENTILATION FAN SHALL ALSO BE INSTALLED (110 CFM). THIS SECONDARY FAN SHALL BE MANUALLY ACTIVATED BY A TOGGLE SWITCH LOCATED ON THE MAINTENANCE PANEL.

8. THE CABINET POWER SURGE SUPPRESSOR/LINE FILTER SHALL BE A PLUG-IN STYLE FOR EASY REPLACEMENT, AND SHALL BE AN EDCO MODEL SHA1250 WITH SHA1250 BASE, OR APPROVED EQUAL.

9. AN AUXILIARY GENERATOR CONNECTION ENCLOSURE SHALL BE MOUNTED ON THE OUTSIDE OF THE UPPER SECTION OF THE CABINET ON THE SAME SIDE AS THE CABINET CIRCUIT BREAKERS. THE DRAWINGS FOR THE REQUIRED ENCLOSURE, COMPONENTS AND WIRING ARE INCLUDED IN THIS PLAN. THE ENCLOSURE SHALL BE PAINTED TO THE SAME SPECIFICATIONS AS THE CABINET.

10. SURGE SUPPRESSORS SHALL BE PROVIDED AT THE FIELD TERMINALS FOR ALL INDUCTIVE LOOPS. THESE SURGE SUPPRESSORS SHALL BE AN EDCO MODEL SRA 16C-I, OR APPROVED EQUAL.

11. THE CONTROLLER CABINET SHALL BE KEYED TO THE STATE MASTER.

12. PRINTED BOARD TYPE BACK PANELS OF THE CONTROLLER CABINET WILL NOT BE ACCEPTABLE. SOLDERED CONNECTIONS WILL BE PERMITTED FOR WIRING ON THE BACK SIDE OF THE BACK PANEL. ALL CONTROLLER MEMORIES SHALL BE INVOLATILE AND SHALL NOT REQUIRE BATTERIES OR OTHER SOURCE OF ENERGY TO RETAIN THE DATA WHILE POWER IS REMOVED FROM THE CONTROLLER.

13. THE DESIGN OF THE CONFLICT MONITOR SHALL BE MICROPROCESSOR ARCHITECTURE AND LIQUID CRYSTAL DISPLAYS. THE MONITOR SHALL INDICATE THE EXACT LOAD SWITCH CHANNEL IN WHICH THE FAILURE OCCURRED. THE CONFLICT MONITOR SHALL HAVE 12 CHANNELS AND AN EVENT LOGGING MEMORY. A MINIMUM OF NINE (9) EVENTS SHALL BE LOGGED. EXAMPLES OF EVENTS INCLUDE: POWER OUTAGES, CONFLICTS, CONTROLLER VOLTAGE MONITOR, ETC. EVENTS SHALL BE DISPLAYED ON THE CONFLICT MONITOR'S LIQUID CRYSTAL DISPLAY WHEN INTERROGATED.

14. A BATTERY BACKUP UNIT SHALL ALSO BE SUPPLIED. THE BACKUP UNIT SHALL BE A SYSTEM BASED ON MYERS POWER PRODUCTS MODEL MP2000E OR APPROVED EQUAL. THE BATTERY BACKUP EQUIPMENT WITH BATTERIES SHALL BE COMPLETE, MOUNTED AND CONTAINED WITHIN THE BATTERY COMPARTMENT OF THE CONTROLLER CABINET.

15. CONTRACTOR MUST COORDINATE WITH THE CITY OF DUBLIN STAFF TO PROGRAM CONTROLLER SETTINGS AND COORDINATION TIMINGS.

PAYMENT FOR ITEM 633, CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN, WILL BE AT THE CONTRACT BID PRICE PER EACH, COMPLETE AND IN PLACE INCLUDING ALL CONNECTIONS TESTED AND ACCEPTED.

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Date: Apr 23, 2014 Time: 7:22 am Twist: -1.57079633

CALCULATED AWH
CHECKED SDS

TRAFFIC SIGNAL GENERAL NOTES

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

ITEM 633, CONTROLLER WORK PAD, AS PER PLAN

TOP OF CABINET FOUNDATION SHALL BE 4 INCHES ABOVE HIGHEST POINT OF THE FINISHED GRADE. WORK PAD SHALL PROVIDE ACCESS TO BOTH THE CONTROLLER CABINET AND BACKUP POWER SUPPLY.

ITEM 633, CABINET FOUNDATION, AS PER PLAN

THE CONTROLLER CABINET FOUNDATIONS SHALL BE SIZED FOR THE P-58UPS (SIEMENS/EAGLE SIZE P-UPS CABINET CATALOG NUMBER ELS1014) DOUBLE DOOR CABINET. THE SIZE OF THE FOUNDATION SHALL BE VERIFIED WITH THE CITY PRIOR TO INSTALLATION OF THE FOUNDATION. THE ANCHOR BOLTS SHALL BE CONSIDERED INCIDENTAL TO THE COST PAID FOR THIS ITEM. THE COST OF COORDINATION WITH THE CITY SHALL ALSO BE INCIDENTAL TO THE COST PAID FOR THIS ITEM.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID, COMPLETE AND IN PLACE.

ITEM SPECIAL, SLIM INTERNALLY ILLUMINATED LED STREET NAME SIGN, SINGLE FACED

THE CONTRACTOR SHALL FURNISH AND INSTALL EDGE LIT INTERNALLY ILLUMINATED LED STREET NAME SIGNS ACCORDING TO THE PLANS. THE SIGNS SHALL BE RIGID MOUNTED ON THE TRAFFIC SIGNAL MAST ARMS. ALL THE SIGN ATTACHMENT HARDWARE WITH WIRING CONNECTIONS SHALL BE INCLUDED WITH THIS ITEM.

THE LED STREET NAME SIGN SHALL MEET THE SPECIFICATIONS OF THE LED STREET NAME SIGN AS MANUFACTURED BY THE NATIONAL SIGN AND SIGNAL COMPANY, BATTLE CREEK MI, UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE SIGN ASSEMBLY SHALL CONSIST OF AN ALUMINUM HOUSING WITH BACKLIT INTERNAL LED FIXTURES, COMPLETE. THE SIGN FACE SHALL DISPLAY THE LEGEND BY SHOWING WHITE TRANSLUCENT LETTERS ON A REFLECTORIZED BROWN BACKGROUND (DARK BROWN TO MATCH FEDERAL SPECIFICATION NO. 10075). WHEN MOUNTED, THE SIGN SHALL PROVIDE A 5 DEGREE DOWNWARD ANGLE FOR INCREASED VISIBILITY. THE EXTERIOR OF THE SIGN SHALL BE PAINTED TO MATCH THE CITY OF DUBLIN STANDARD FOR POLE PAINT COLOR (DUBLIN BRONZE). THE CONTRACTOR SHALL VERIFY THE LEGEND OF EACH STREET NAME SIGN WITH THE DUBLIN CITY ENGINEER PRIOR TO ORDERING THE SIGN FROM THE MANUFACTURER. THE PHOTOELECTRIC CONTROL CELL SHALL BE MOUNTED ON TOP OF THE MAST ARM POLE WHICH IS CLOSEST TO THE CONTROLLER CABINET/HOUSING AND SHALL BE PLUG-IN TYPE WITH BASE.

THE SIGN FACE SHALL BE CONSTRUCTED OF A TRANSLUCENT SHATTERPROOF LENS, TO PROVIDE A WHITE LEGEND. THE LETTERS SHALL BE 12 INCH UPPERCASE / 9 INCH LOWERCASE HELVETICA BOLD LETTER STYLE. THE SIGN FACE LEGEND BACKGROUND SHALL BE A TRANSLUCENT STANDARD TRAFFIC BROWN FILM OR PAINT (DARK BRONZE TO MATCH FEDERAL SPECIFICATION NO. 10075). A CLEAR COAT MAY BE APPLIED TO ALL SIGN FACES TO PREVENT FADING AND PROTECT THE SURFACE. ALL SIGNS SHALL CARRY THE STANDARD MANUFACTURER'S WARRANTY.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID FOR EACH, COMPLETE AND IN PLACE, ALL CONNECTIONS TESTED AND ACCEPTED.

ITEM SPECIAL, IN CABINET SERIAL COMMUNICATION LINK

AN RS-232 SERIAL COMMUNICATIONS LINK IN THE CABINET BETWEEN THE CONTROLLER, EDI CONFLICT MONITOR, AND ALL CANOGA 800 AND/OR 900 SERIES VEHICLE DETECTOR DEVICES SHALL BE PROVIDED TO ALLOW REMOTE CENTRAL OFFICE CONNECTION OF THESE DEVICES.

THE CENTRAL OFFICE USER INTERFACE SHALL BE PART OF THE SOFTWARE USED FOR COMMUNICATING WITH THE CONTROLLER. THE INTERFACE SHALL LAUNCH THE SOFTWARE DEVELOPED BY THE DEVICE MANUFACTURER AND PROVIDE ALL FUNCTIONS OF THAT SOFTWARE FROM THE CENTRAL OFFICE.

ALL HARDWARE REQUIRED TO MAKE THIS CONNECTION SHALL BE SUPPLIED WITH THE CABINET AND BE FULLY FUNCTIONAL.

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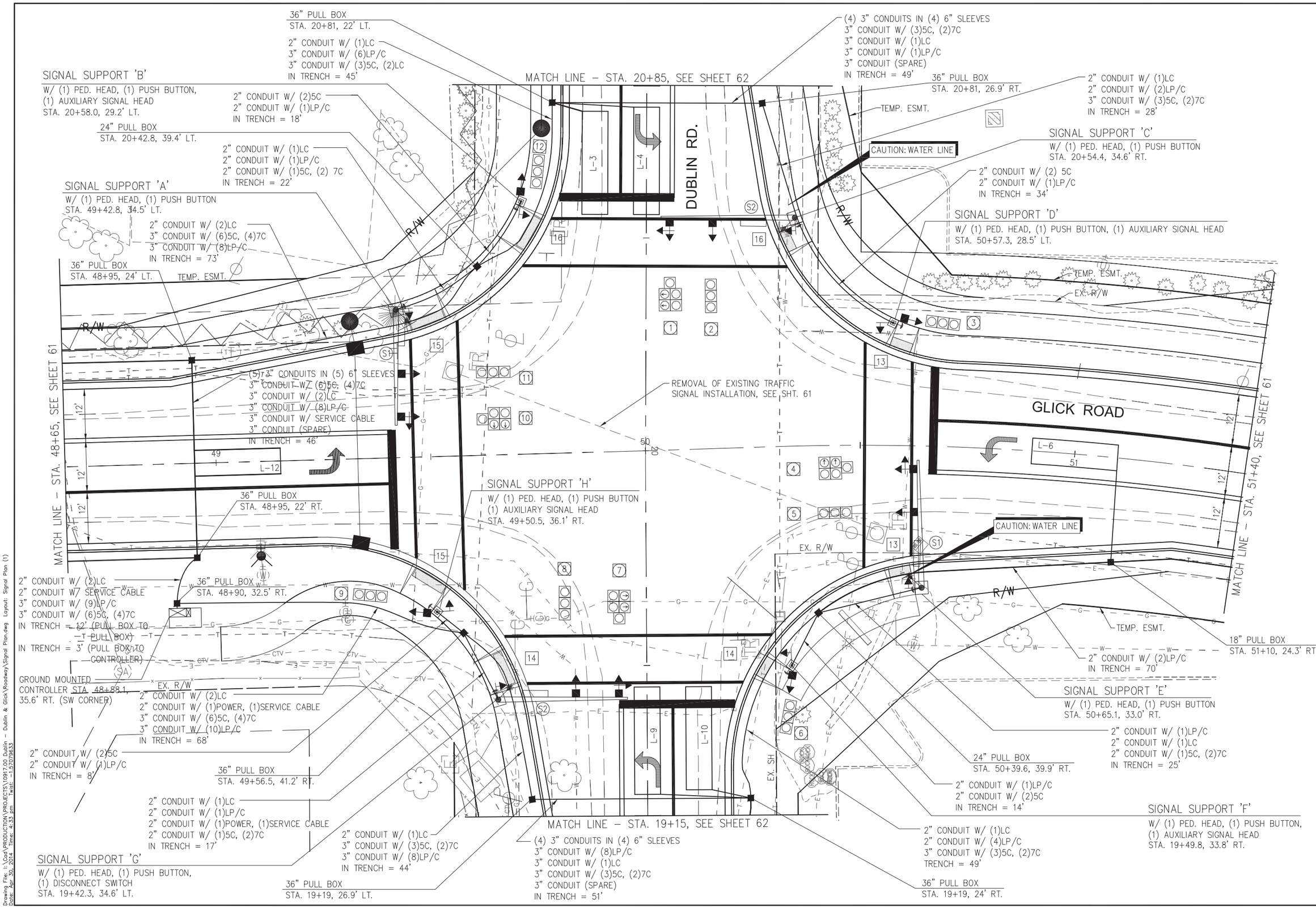

CALCULATED LAM
CHECKED SDS

TRAFFIC SIGNAL PLAN

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

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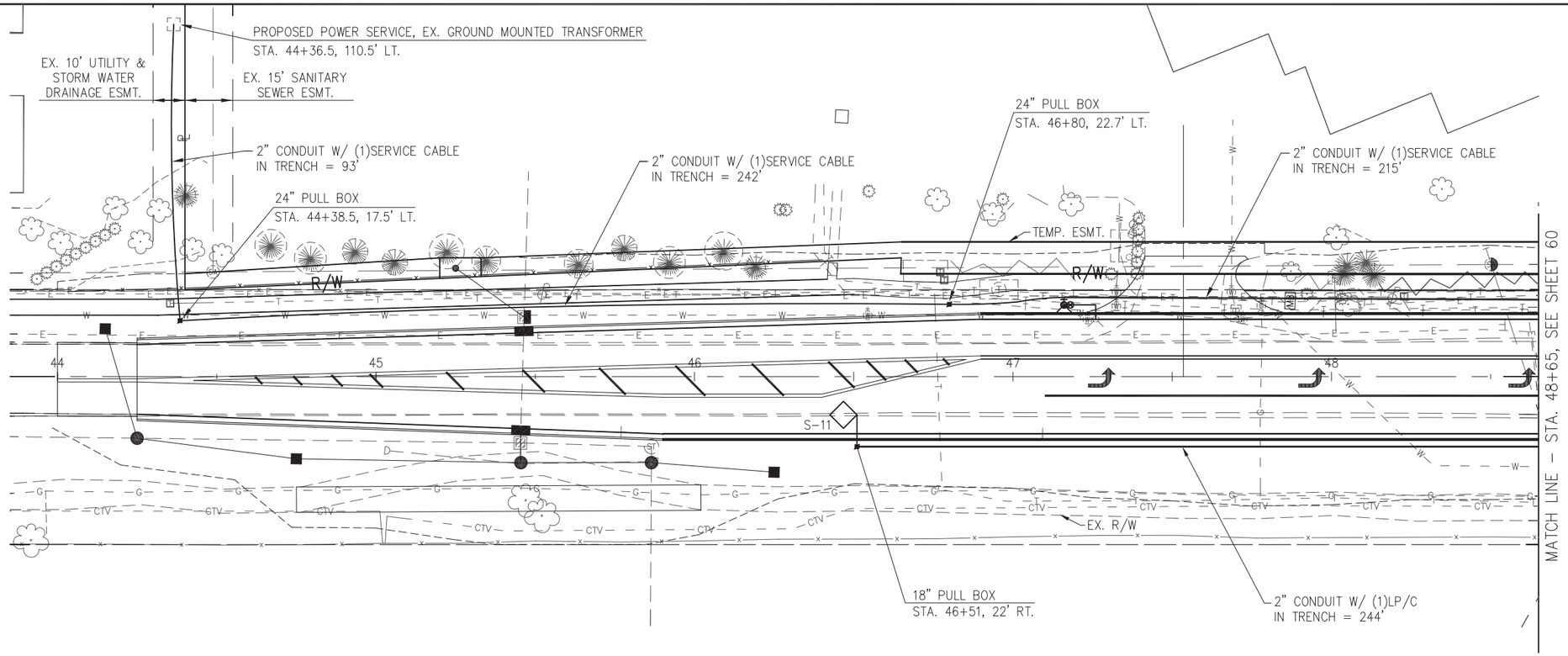

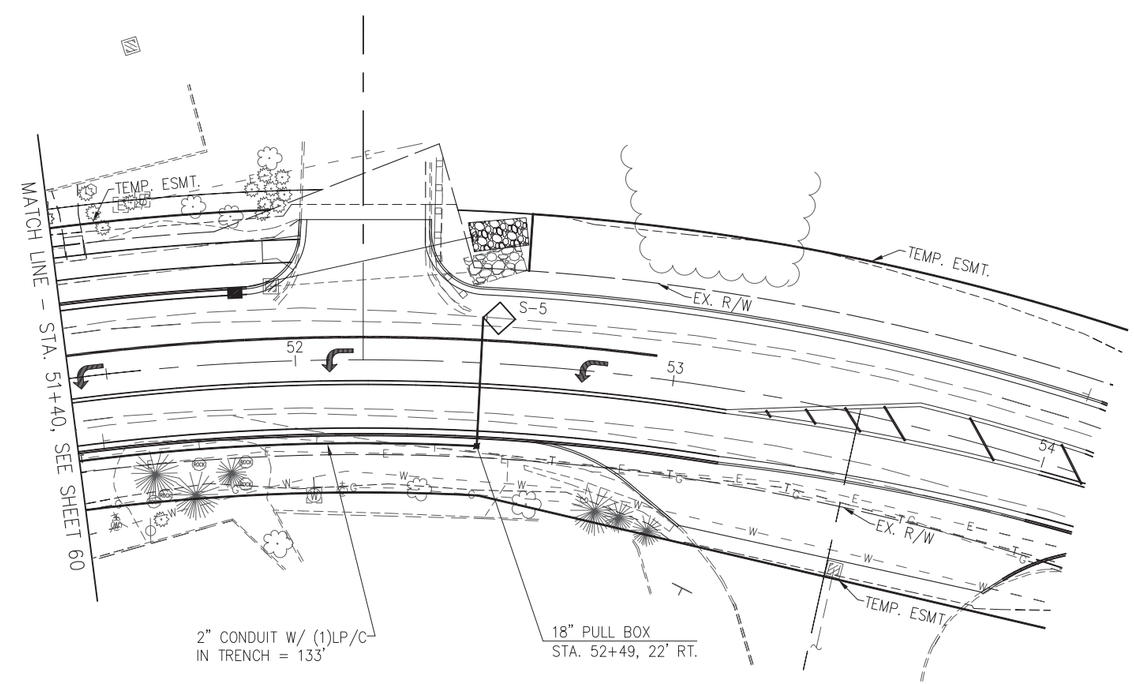

ITEM 632, REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN			
QUANTITY	REMOVED ITEM DESCRIPTION	DELIVERED TO ODOT D-6	DISPOSED OF BY PROJECT
1	CONTROLLER CABINET W/ ALL EQUIPMENT	X	
1	UPS CABINET W/ ALL EQUIPMENT	X	
8	VEHICULAR SIGNAL HEADS	X	
2	SIGNAL POLES (BOLTED)		X
LUMP	SIGNAL CONDUIT *		X
LUMP	SIGNAL PULL BOXES		X
LUMP	SIGNAL CABLE		X
LUMP	MESSENGER / TETHER WIRE		X
2	POLE FOUNDATION		X
1	CONTROLLER FOUNDATION		X

* = CONDUIT SHALL BE REMOVED WHERE CONFLICTS EXIST WITH PROPOSED IMPROVEMENTS

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED LAM
CHECKED SDS

TRAFFIC SIGNAL PLAN

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

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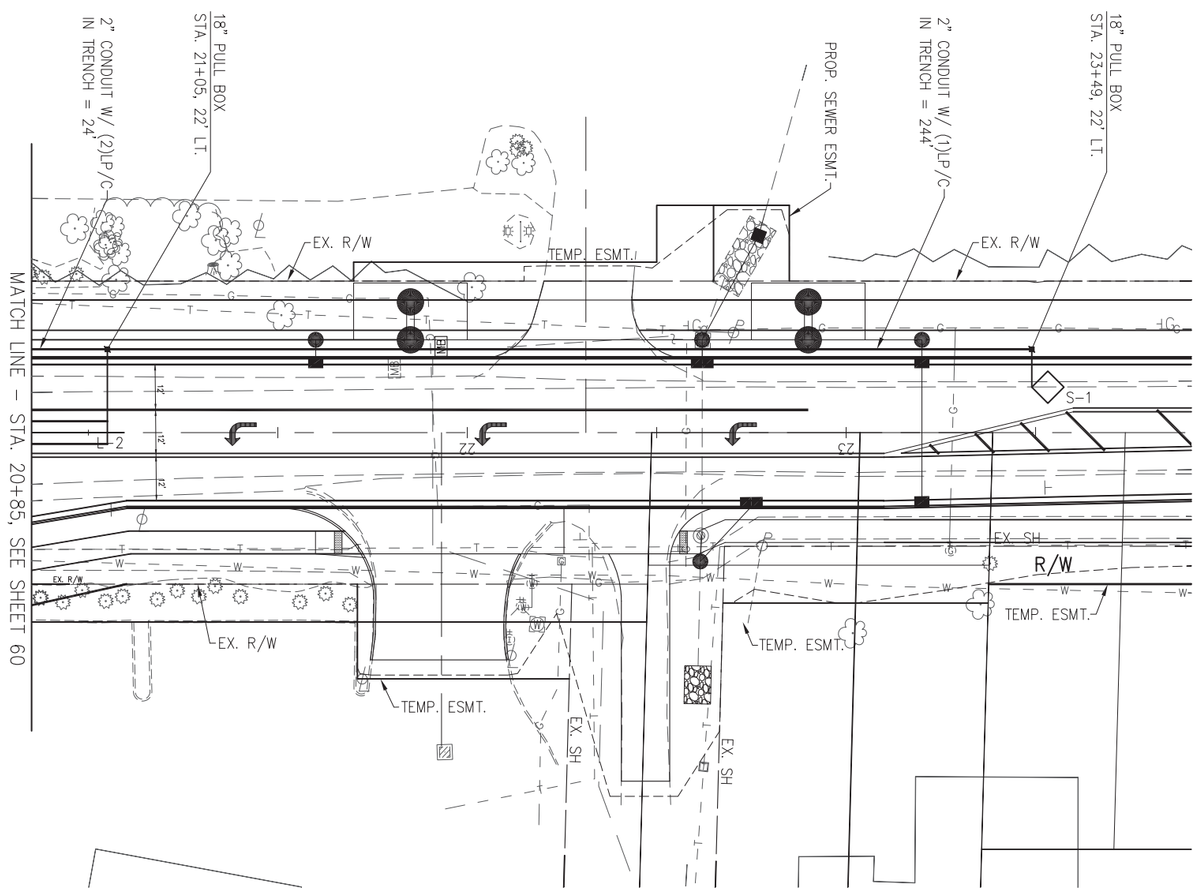
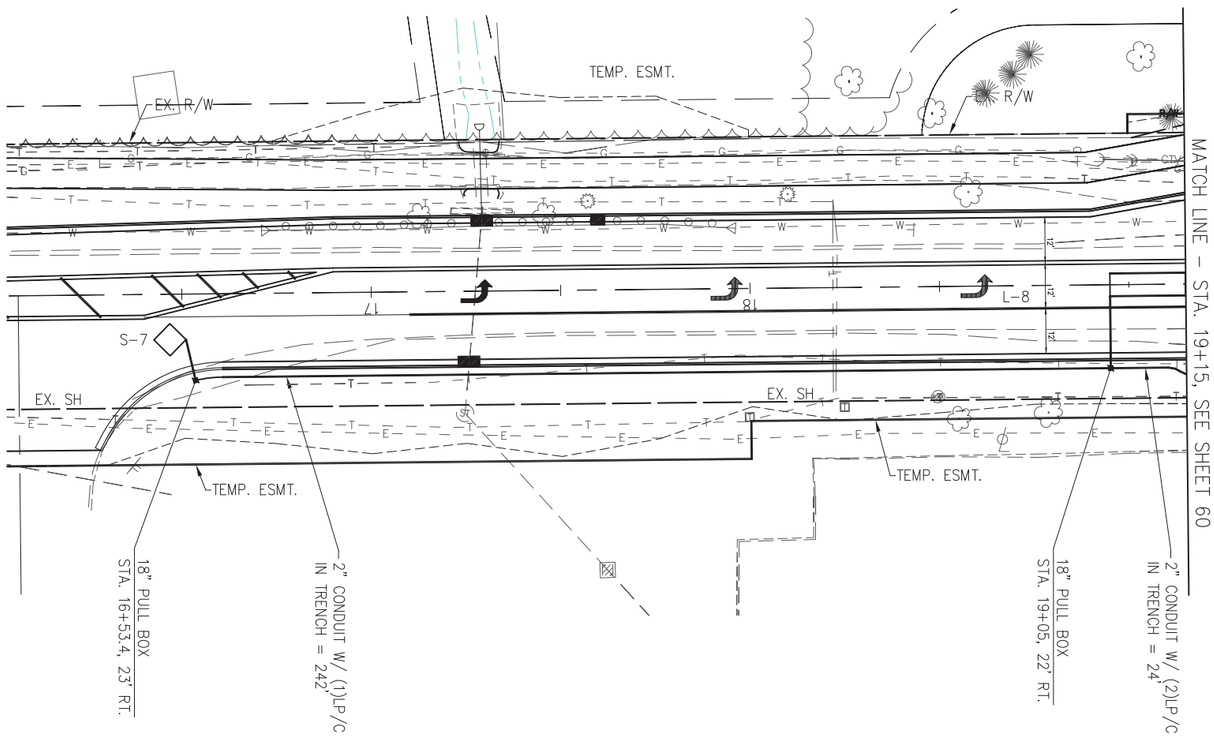
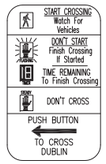


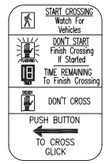


62 / 76	DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS	TRAFFIC SIGNAL PLAN	CALCULATED LAM / CHECKED SDS	0 10 20 40 HORIZONTAL SCALE IN FEET

PEDESTRIAN PUSH BUTTON SIGNS



R10-3i (DUBLIN)
MOUNTED ABOVE
PUSHBUTTON



R10-3i (GLICK)
MOUNTED ABOVE
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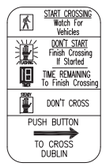

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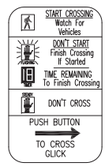
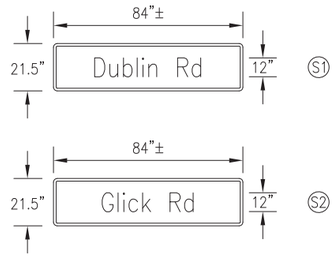
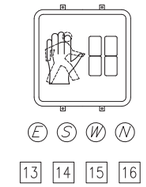


R10-3i (GLICK)
MOUNTED ABOVE
PUSHBUTTON

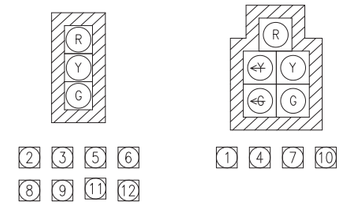
EDGE LIT INTERNALLY ILLUMINATED LED STREET NAME SIGN



SIGNAL INDICATIONS

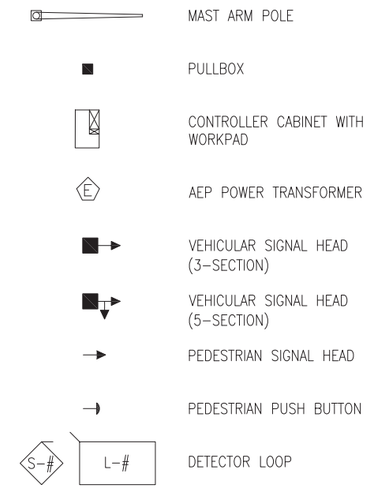


PEDESTRIAN SIGNAL
LED TYPE

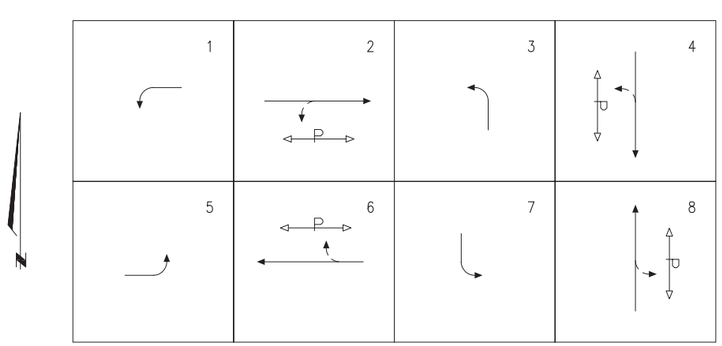


ALL LENSES SHALL BE 12" LED TYPE

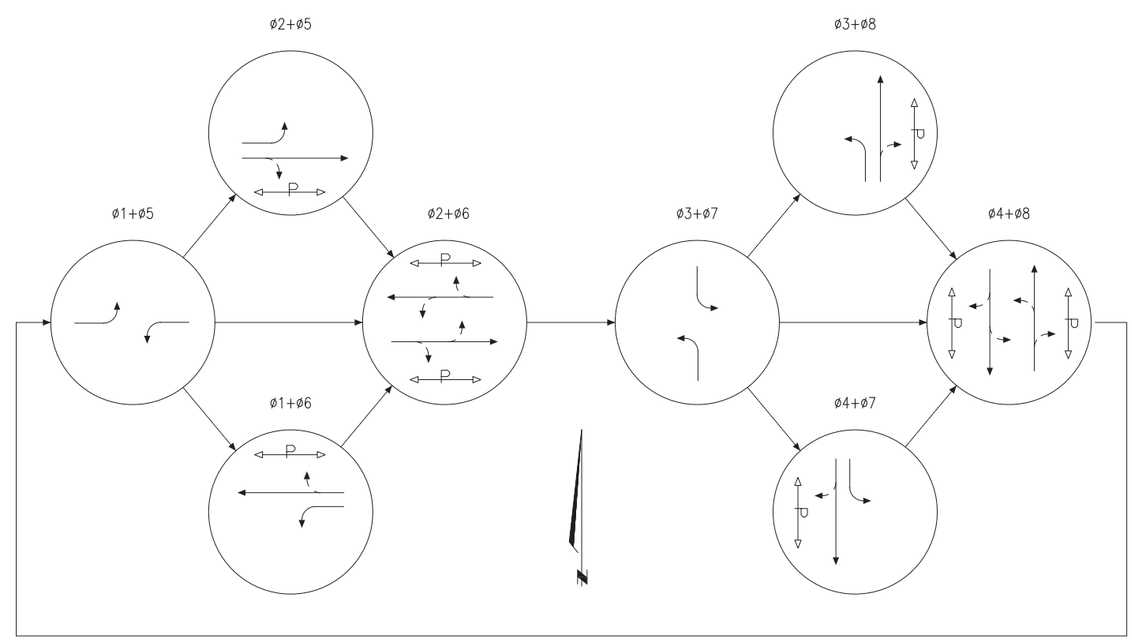
SIGNAL PLAN LEGEND



NEMA PHASING



SIGNAL PHASING



CALCULATED AWH
CHECKED KJG

TRAFFIC SIGNAL DETAILS

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05\I_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Signal Plan.dwg Layout: Signal Details (1)
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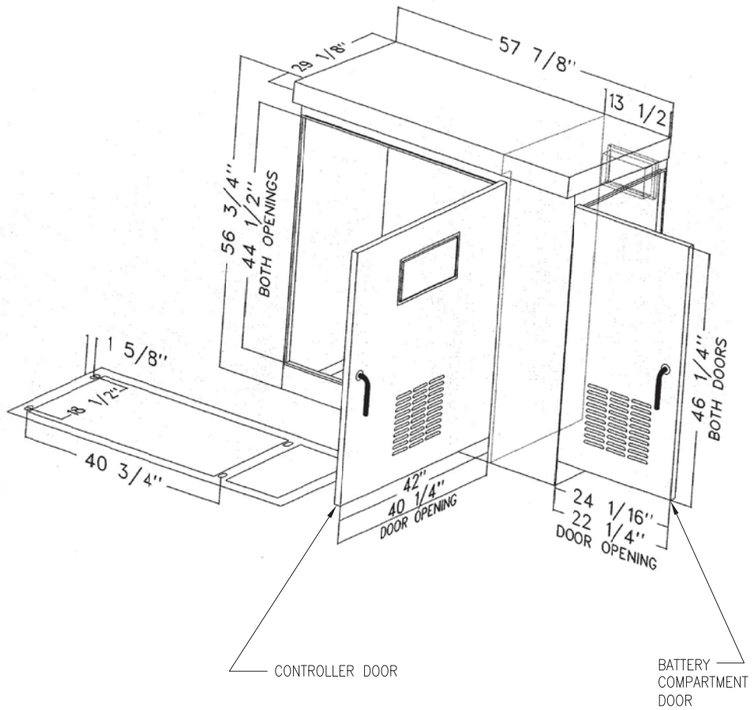
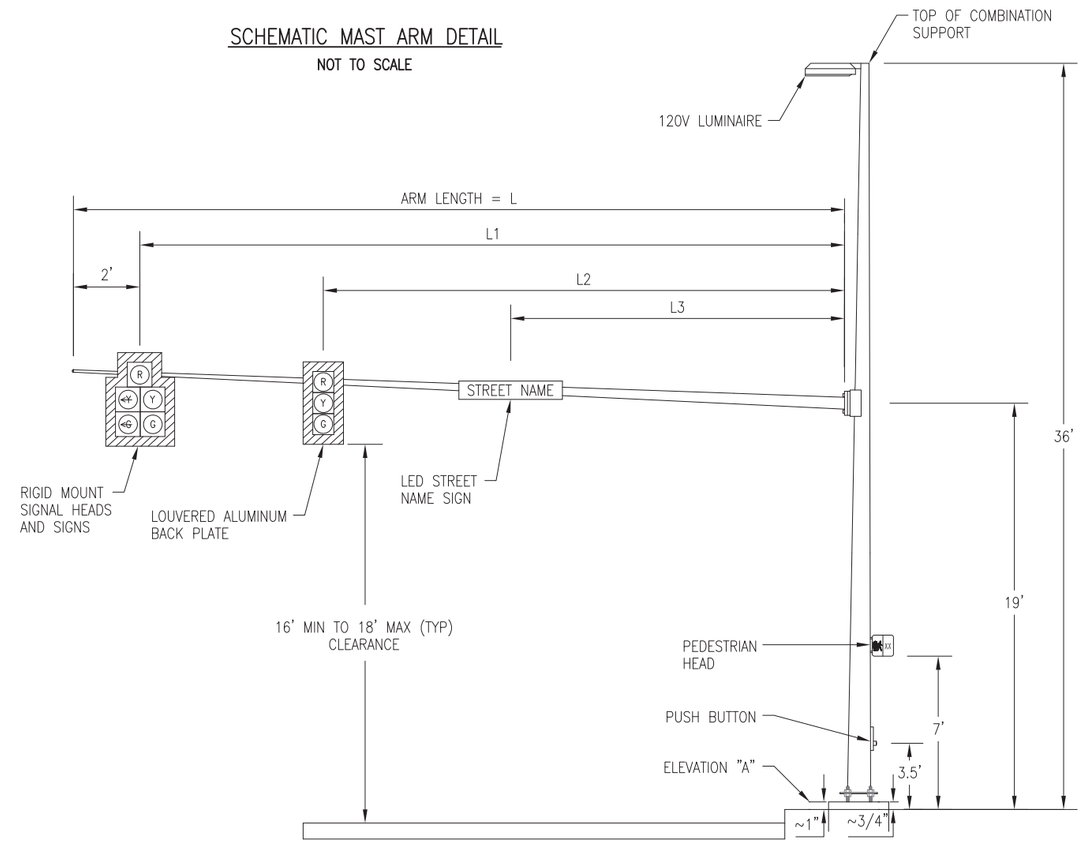
P-58UPS CABINET



SCHEMATIC MAST ARM DETAIL

NOT TO SCALE



P-58UPS CABINET DETAILS

NOTES:

1. THE CABINET SHALL BE CONSTRUCTED TO INCLUDE ALL THE DESIGN FEATURES OF THE SIEMENS/EAGLE SIZE P-UPS CABINET, CATALOG NUMBER ELS1014, WITH THE FOLLOWING EXCEPTIONS.

   A. THE CONTROLLER DOOR SHALL HAVE THE HINGES ON THE LEFT SIDE OF THE DOOR OPENING. THE DOOR WILL OPEN TO THE LEFT. **ISOMETRIC DRAWING ABOVE DOES NOT SHOW HINGES CORRECTLY.**

   B. THE BATTERY COMPARTMENT DOOR SHALL HAVE THE HINGES ON THE RIGHT SIDE OF THE DOOR OPENING. THE DOOR WILL OPEN TO THE RIGHT. **ISOMETRIC DRAWING ABOVE DOES NOT SHOW HINGES CORRECTLY.**

2. THE CABINET SHALL INCLUDE THE GENERATOR POWER PANEL PER THE DETAILS ON SHEET 67.

CONDUITS BETWEEN PULL BOX (STA 48+90, 32.5' RT) AND FOUNDATION FOR GROUND MOUNTED SIGNAL CONTROLLER CABINET (STA 48+88, 33.6' RT) WITH UPS SYSTEM SHALL INCLUDE SCH 40 PVC CONDUIT ELLS (90° SWEEP) AS FOLLOWS:

SIZE	PURPOSE
2"	POWER CABLE
2"	LIGHTING CIRCUITS (4)LC
4"	LOOP CABLES (19)LP/C
4"	SIGNAL CABLES (12)5C, (8)7C
4"	SPARE

PER STANDARD, 3/4" CONDUIT WILL BE PROVIDED FOR GROUND CABLE. ALL ABOVE CONDUITS ARE TO BE TERMINATED INSIDE THE CONTROLLER COMPARTMENT OF THE CABINET.

MAST ARM ORIENTATION NOTES

NOTES:

1. ALL POLES SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER. SHOP DRAWINGS AND COMPUTATIONS SHALL BE SUBMITTED TO THE DUBLIN CITY ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
2. ELEVATION "A" IS SHOWN FOR COMPUTATIONAL PURPOSES ONLY. THE ACTUAL ELEVATION OF EACH FOUNDATION SHALL BE IN ACCORDANCE WITH THE DETAIL GIVEN ON THE SIGNAL PLAN SHEETS.
3. PEDESTRIAN SIGNAL HEAD IS ATTACHED WITH TWO-PIECE HINGED BRACKET, AS PER TC-85.10.
4. AUXILIARY SIGNAL HEAD IS ATTACHED WITH 1 ½" BLIND HALF COUPLINGS, AS PER TC-85.10.

CALCULATED LAM
CHECKED SDS

TRAFFIC SIGNAL DETAILS

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Signal Plan.dwg Layout: Signal Details 2
Date: Apr 10, 2014 Time: 11:22 am Twist: -1.57079633

TRAFFIC SIGNAL QUANTITIES

ITEM	DESCRIPTION	TOTAL	UNIT
625*	CONNECTOR KIT, TYPE II	4	EACH
625*	CONNECTOR KIT, TYPE III	8	EACH
625*	NO. 10 AWG POLE AND BRACKET CABLE	312	LF
625*	CONDUIT, 2", 725.05	2372	LF
625*	CONDUIT, 3", 725.05	1195	LF
625*	CONDUIT, 6", 725.05, AS PER PLAN	630	LF
625*	TRENCH, AS PER PLAN	2137	LF
625*	PULL BOX, 725.08, 18", AS PER PLAN	7	EACH
625*	PULL BOX, 725.08, 24", AS PER PLAN	4	EACH
625*	PULL BOX, 725.08, 36", AS PER PLAN	8	EACH
625*	GROUND ROD, AS PER PLAN	9	EACH
625*	PLASTIC CAUTION TAPE, AS PER PLAN	2137	LF
625*	LUMINAIRE, MISC. 80 WATT LED, TYPE II MEDIUM, AS PER PLAN	4	EACH
632*	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, AS PER PLAN	8	EACH
632*	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, AS PER PLAN	4	EACH
632*	PEDESTRIAN SIGNAL HEAD, (LED), (COUNTDOWN), TYPE D2, AS PER PLAN	8	EACH
632*	COVERING OF VEHICULAR SIGNAL HEAD	12	EACH
632*	COVERING OF PEDESTRIAN SIGNAL HEAD	8	EACH
632*	DETECTOR LOOP, AS PER PLAN	12	EACH
632*	SIGNAL CABLE, 3 CONDUCTOR, NO. 10 AWG	927	LF
632*	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	2725	LF
632*	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	2052	LF
632*	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	4	EACH
632	PEDESTAL FOUNDATION	4	EACH
632*	LOOP DETECTOR LEAD-IN CABLE, 2 CONDUCTOR, NO. 14 AWG	5333	LF
632*	POWER CABLE, 3 CONDUCTOR, NO. 10 AWG	295	LF
632*	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	737	LF
632*	POWER SERVICE, AS PER PLAN	1	EACH
632*	COMBINATION SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, WITH MAST ARMS, 27', AS PER PLAN	1	EACH
632*	COMBINATION SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, WITH MAST ARMS, 30', AS PER PLAN	2	EACH
632*	COMBINATION SIGNAL SUPPORT, TYPE TC-81.21, DESIGN 4, WITH MAST ARMS, 31', AS PER PLAN	1	EACH
632*	PEDESTRIAN PEDESTAL, 18', AS PER PLAN	4	EACH
632*	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	1	EACH
633*	CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN	1	EACH
633*	CABINET FOUNDATION, AS PER PLAN	1	EACH
633*	CONTROLLER WORK PAD, AS PER PLAN	1	EACH
633*	CONTROLLER ITEM, MISC.: PEDESTRIAN SIGNAL SYSTEM	1	EACH
SPECIAL*	SLIM INTERNALLY ILLUMINATED LED STREET NAME SIGN, SINGLE FACED	4	EACH
SPECIAL*	IN CABINET SERIAL COMMUNICATION LINK	1	EACH

* DENOTES OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (2013 EDITION). ALL OTHER ITEMS REFERENCE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

FIELD WIRING HOOK-UP CHART

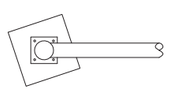
SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
2, 6 (NB)	R	ø8 R	R
	Y	ø8 Y	
	G	ø8 G	
1 (NBLT)	R	ø8 R	R
	Y	ø8 Y	
	G	ø8 G	
	~~Y~~	ø3 Y	
	~~G~~	ø3 G	
5, 9 (EB)	R	ø2 R	R
	Y	ø2 Y	
	G	ø2 G	
4 (EBLT)	R	ø2 R	R
	Y	ø2 Y	
	G	ø2 G	
	~~Y~~	ø5 Y	
	~~G~~	ø5 G	
8, 12 (SB)	R	ø4 R	R
	Y	ø4 Y	
	G	ø4 G	
7 (SBLT)	R	ø4 R	R
	Y	ø4 Y	
	G	ø4 G	
	~~Y~~	ø7 Y	
	~~G~~	ø7 G	
3, 11 (WB)	R	ø6 R	R
	Y	ø6 Y	
	G	ø6 G	
10 (WBLT)	R	ø6 R	R
	Y	ø6 Y	
	G	ø6 G	
	~~Y~~	ø1 Y	
	~~G~~	ø1 G	
NN (NORTH)	W	OLD G (ø6)	OUT
	DW	OLD R (ø6)	
EE (EAST)	W	OLA G (ø8)	OUT
	DW	OLA R (ø8)	
SS (SOUTH)	W	OLB G (ø2)	OUT
	DW	OLB R (ø2)	
WW (WEST)	W	OLC G (ø4)	OUT
	DW	OLC R (ø4)	
OLA = LS 9		OLC = LS 11	
OLB = LS 10		OLD = LS 12	

PLAN 1/1/1 — SIGNAL TIMING IN SECONDS – ALL DAY

TIMING INTERVAL	ø1 WBLT	ø2 EB	ø3 NBLT	ø4 SB	ø5 EBLT	ø6 WB	ø7 SBLT	ø8 NB
MINIMUM INITIAL GREEN	7.0	15.0	7.0	10.0	7.0	15.0	7.0	10.0
MAXIMUM GREEN	10.0	40.0	12.0	38.0	10.0	40.0	12.0	38.0
VEHICLE EXTENSION	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
YELLOW CLEARANCE	3.0	3.6	3.6	3.6	3.6	3.0	3.6	3.6
ALL RED	2.9	1.9	1.9	1.8	2.0	2.8	2.0	1.9
WALK	–	7.0	–	7.0	–	7.0	–	7.0
FLASH "DON'T WALK"	–	14.0	–	13.0	–	14.0	–	14.0
PEDESTRIAN RECALL	–	OFF	–	OFF	–	OFF	–	OFF
VEHICLE RECALL	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
MEMORY	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK
CYCLE LENGTH = 100 SECONDS								

SIGNAL SUPPORT DATA

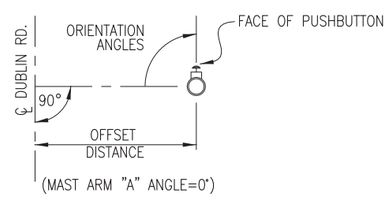
SUPPORT I.D.	POLE (AS PER PLAN)	FOUNDATION STATION	FOUNDATION OFFSET	ELEVATION A (FT)	POLE DESIGN NO.	POLE HEIGHT (FT.)	L (FT)	L1 (FT)	L2 (FT)	L3 (FT)	MAST ARM A ANGLE	ORIENTATION ANGLES (DEG.) FROM MAST ARM 'A': PEDESTRIAN SIGNAL BRACKET	PEDESTRIAN PUSH BUTTON	HANDHOLE	LUMINAIRE	AUXILIARY SIGNAL BRACKET	DISCONNECT SWITCH
A	COMBINATION SUPPORT	49+42.8	34.5' LT.	891.3	4	36	27	25	15	5	90°	265°	250°	180°	315°	–	–
B	PEDESTRIAN PEDESTAL	20+58.0	29.2' LT.	889.7	–	18	–	–	–	–	0°	100°	125°	–	–	275°	–
C	COMBINATION SUPPORT	20+54.4	34.6' RT.	889.2	4	36	31	29	19	9	0°	265°	245°	180°	315°	–	–
D	PEDESTRIAN PEDESTAL	50+57.3	28.5' LT.	887.5	–	18	–	–	–	–	0°	0°	200°	–	–	195°	–
E	COMBINATION SUPPORT	50+65.1	33.0' RT.	886.5	4	36	30	28	18	8	89°	270°	260°	180°	315°	–	–
F	PEDESTRIAN PEDESTAL	19+49.8	33.8' RT.	887.8	–	18	–	–	–	–	0°	85°	305°	–	–	280°	–
G	COMBINATION SUPPORT	19+42.3	34.6' LT.	888.1	4	36	30	28	18	8	0°	260°	255°	180°	315°	–	80°
H	PEDESTRIAN PEDESTAL	49+50.5	36.1' RT.	890.4	–	18	–	–	–	–	0°	355°	220°	–	–	185°	–



BOLT CIRCLE ORIENTATION NOTE

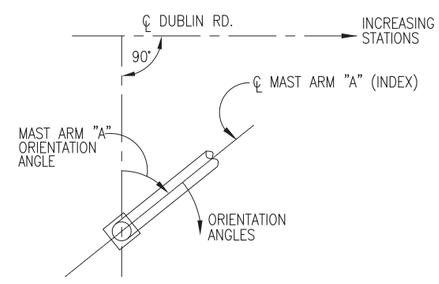
NOT TO SCALE

BOLT CIRCLE SHALL PROPERLY ALIGN TO BE PARALLEL/PERPENDICULAR ABOUT THE PERIMETER OF THE BASE PLATE. BOLTS SHALL BE ORIENTED SUCH THAT (2) BOLTS ARE ALWAYS FULLY IN TENSION AND (2) BOLTS ARE ALWAYS FULLY IN COMPRESSION. THE SQUARE CONCRETE FOUNDATION CAP **DOES NOT** HAVE TO BE ALIGNED WITH THE BASE PLATE.



PEDESTRIAN PEDESTAL

NOT TO SCALE

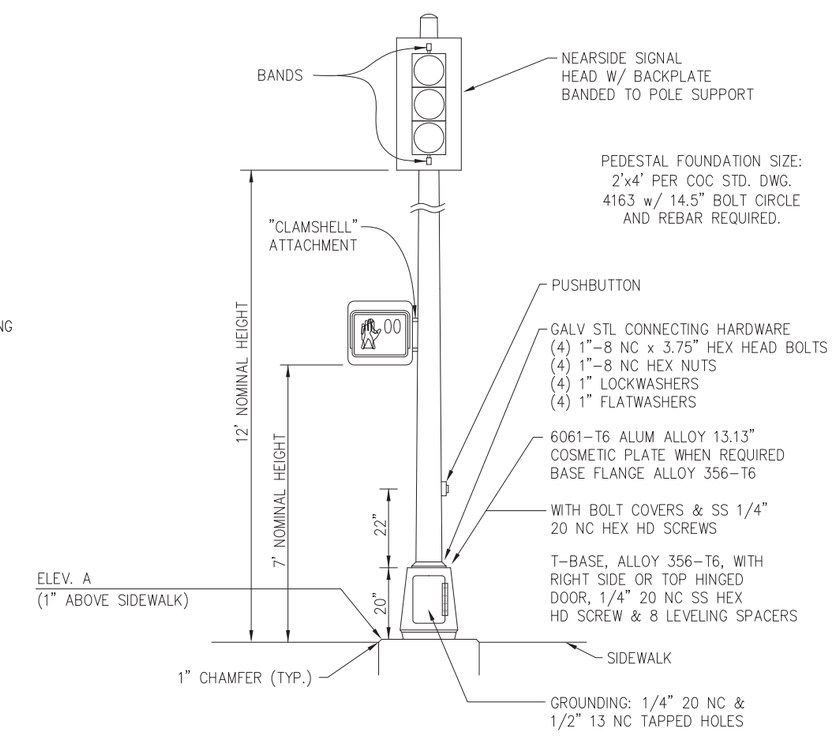


NOTES:

1. ALL ANGLES ARE MEASURED CLOCKWISE
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM "A".

MAST ARM ORIENTATION SCHEMATIC

NOT TO SCALE



SCHEMATIC OF 18' PEDESTAL SUPPORT

NOT TO SCALE

CALCULATED LAM
CHECKED SDS

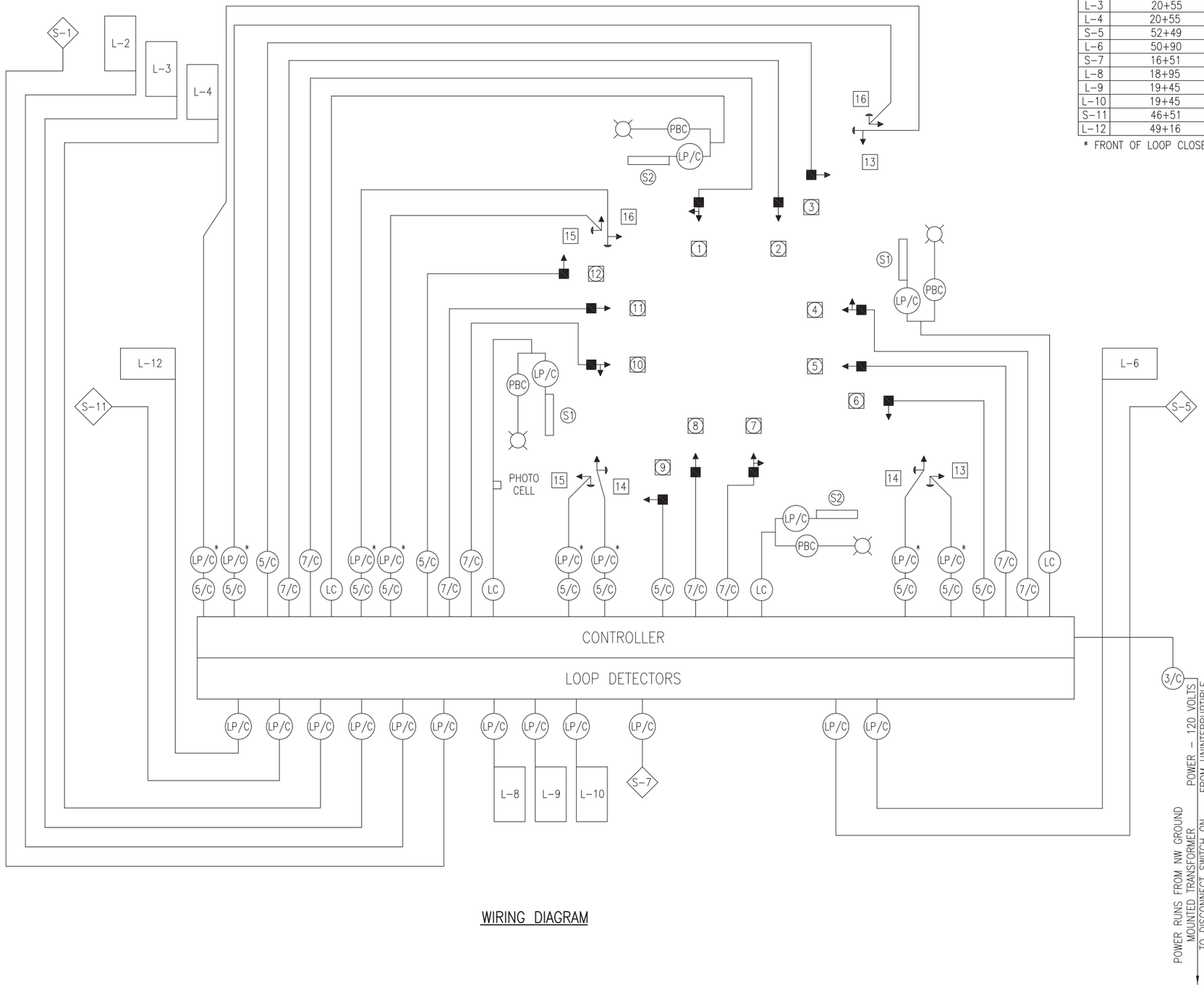
TRAFFIC SIGNAL DETAILS

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Signal Plan.dwg Layout: Signal Details 3
Date: May 14, 2014 Time: 1:24 pm Twist: -1.57079633

DETECTOR DATA									
LOOP	DETECTOR LOCATION STATION *	℄	SIZE	NO. OF TURNS	ASSOC. PHASE	DETECTOR AMP.	DETECTOR CHAN.	AMP. MODE	DELAY (SEC.)
S-1	23+49	DUBLIN	6x6	3	ø4	1	1	PULSE	0
L-2	20+90	DUBLIN	6x20	3	ø7	1	2	PRESENCE	0
L-3	20+55	DUBLIN	6x24	3	ø4	1	3	PRESENCE	5
L-4	20+55	DUBLIN	6x25	3	ø4	1	4	PRESENCE	0
S-5	52+49	GLICK	6x6	3	ø6	2	1	PULSE	0
L-6	50+90	GLICK	6x20	3	ø1	2	2	PRESENCE	0
S-7	16+51	DUBLIN	6x6	3	ø8	2	3	PULSE	0
L-8	18+95	DUBLIN	6x20	3	ø8	2	4	PRESENCE	0
L-9	19+45	DUBLIN	6x25	3	ø3	3	1	PRESENCE	0
L-10	19+45	DUBLIN	6x24	3	ø8	3	2	PRESENCE	5
S-11	46+51	GLICK	6x6	3	ø2	3	3	PULSE	0
L-12	49+16	GLICK	6x20	3	ø5	3	4	PRESENCE	0

* FRONT OF LOOP CLOSEST TO INTERSECTION



WIRING DIAGRAM

WIRING DIAGRAM LEGEND

- LP/C — 2/C LOOP DETECTOR LEAD-IN CABLE
- 3/C — 3/C #6 AWG. (SERVICE WIRES)
- 5/C — 5/C # 14 AWG.
- 7/C — 7/C # 14 AWG.
- 9/C — 9/C #14 AWG.
- LC — 3/C #10 AWG. (SHOWN WITH PHOTO CELL IN CIRCUIT)
- PBC — POLE AND BRACKET CABLES, THREE 1/C #10 AWG.
- PROPOSED VEHICULAR SIGNAL HEAD
- PROPOSED VEHICULAR 4 OR 5-SECTION SIGNAL HEAD
- PROPOSED PEDESTRIAN SIGNAL HEAD
- PROPOSED PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD I.D. NUMBER
- S-# / L-# — DETECTOR LOOP I.D. NUMBER
- S# — LED STREET NAME SIGN I.D. NUMBER
- LUMINAIRE FIXTURE

* LP/C - PUSHBUTTON
5/C - PED HEADS

CALCULATED LAM
CHECKED SDS

TRAFFIC SIGNAL DETAILS

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Signal Plan.dwg Layout: Signal Details 4
Date: Apr 10, 2014 Time: 11:22 am Twist: -1.57079633

MATERIAL SPECIFICATIONS FOR GENERATOR POWER PANEL EQUIPMENT

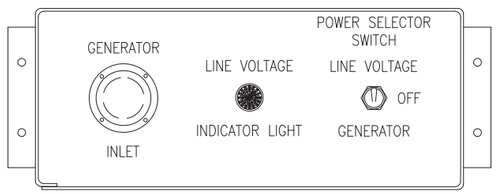
GENERATOR POWER PANEL ENCLOSURE --- THIS ITEM CAN BE FABRICATED TO MEET THE ATTACHED SPECIFICATIONS.

GENERATOR INLET --- THE INLET SHALL BE 30 AMP, 125/250V, LOCKING, FOUR (4) WIRE GROUNDING AND MEET THE NEMA CONFIGURATION NUMBER L14-30-P 30A 125/250V SPECIFICATION. THE INLET SHALL BE A HUBBELL CATALOG #2715.

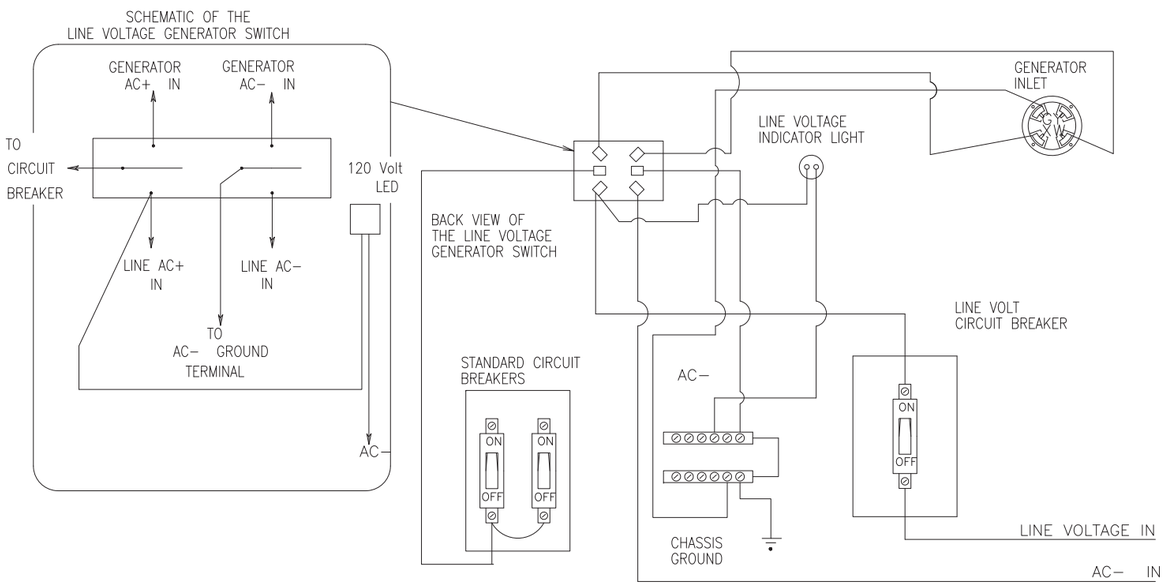
LINE VOLTAGE GENERATOR SWITCH --- THE SWITCH SHALL BE 30 AMP, 125/250V AC, TWO (2) POLE, THREE (3) POSITION. MUST BE TESTED UNDER 30 AMP LOAD FOR 5 DAYS PRIOR TO CABINET INSTALLATION. (ON, OFF, ON, HUBBELL 1388.) MUST BE SWITCHED ON AND OFF 60 TIMES.

LINE VOLTAGE INDICATOR LIGHT --- THE INDICATOR LIGHT SHALL BE 125V AC LIGHT EMITTING DIODE WITH A RED LENS.

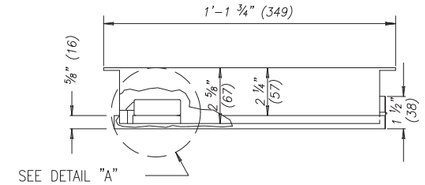
LINE VOLTAGE CIRCUIT BREAKER --- THE CIRCUIT BREAKER SHALL BE SINGLE POLE SINGLE THROW AND A MINIMUM OF 30 AMPS. THE AMPERAGE SHALL BE INCREASED TO ACCOMODATE GREATER LOADS, IF NECESSARY. THE GAUGE OF THE POWER CABLE SHALL BE OF PROPER SIZE PER THE N.E.C.



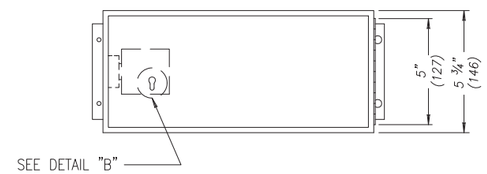
FRONT VIEW OF GENERATOR POWER PANEL



ELECTRICAL HOOKUP DETAIL FOR THE GENERATOR POWER PANEL



TOP VIEW



FRONT VIEW CLOSED DOOR

GENERATOR POWER PANEL ENCLOSURE

NOTES:

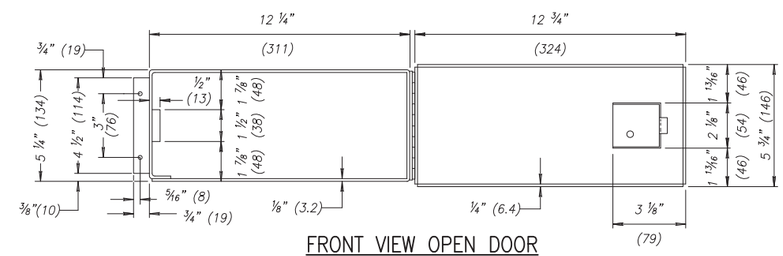
THE ENCLOSURE SHALL BE CONSTRUCTED OF 0.125" THICK ALUMINUM.

THE LOCK SHALL BE THE STANDARD POLICE DOOR TYPE, KEYED WITH TEH STANDARD FLASHER DOOR SKELETON KEY.

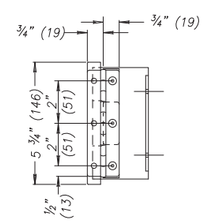
THE DOOR SHALL BE SEALED WITH A FOAM RUBBER GASKET TO PREVENT MOISTURE FORM ENTERING THE ENCLOSURE.

THE ENCLOSURE SHALL BE MOUNTED ONTO THE OUTSIDE OF THE CONTROLLER CABINET WITH NON-ACCESSIBLE BOLTS AND SEALED WITH A HIGH QUALITY SILICON CAULK AT ALL SURFACES TOUCHING THE CABINET.

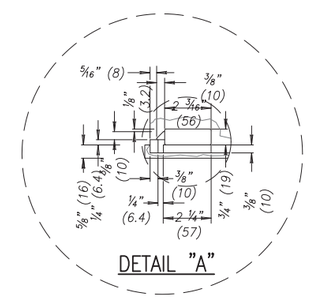
THE HINGE SHALL BE OF STAINLESS STEEL OR EQUIVALENT CORROSIVE-RESISTANT MATERIAL.



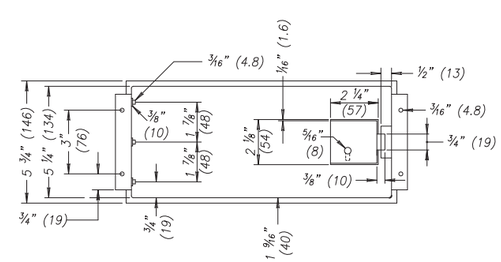
FRONT VIEW OPEN DOOR



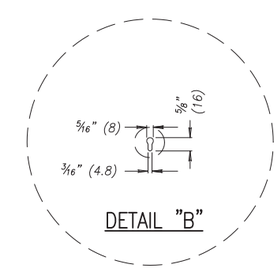
RIGHT SIDE VIEW
CLOSED DOOR



DETAIL "A"



BACK VIEW CLOSED DOOR



DETAIL "B"

CALCULATED AWH
CHECKED SDS

GENERATOR POWER PANEL DETAIL

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: \\AKRN05_Drive\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\Roadway\Generator Power Panel Detail.dwg Layout: Layout1
Date: Mar 31, 2014 Time: 5:20 pm Twist: -1.57079633

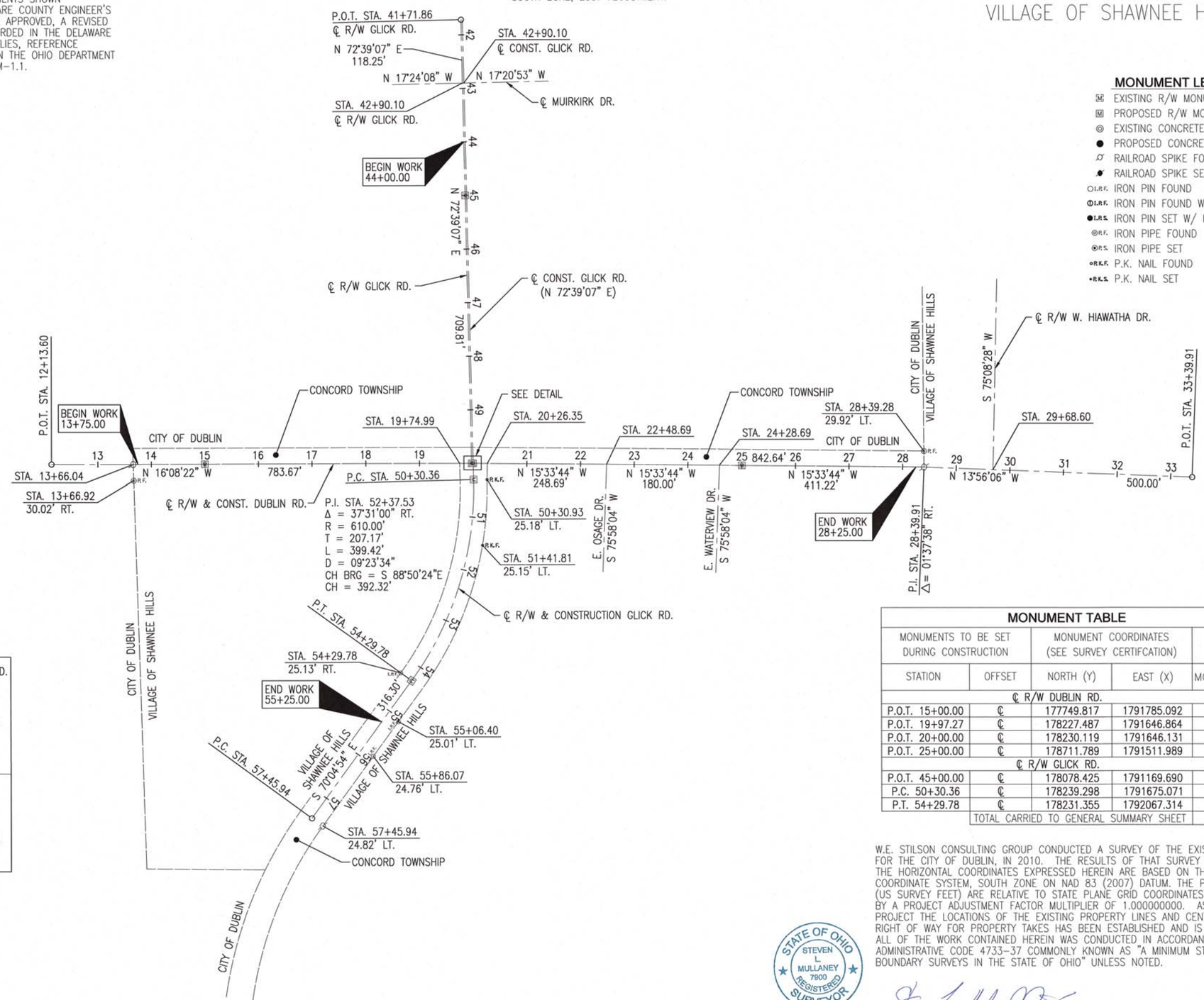
SETTING OF ALL MONUMENTS SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE MONUMENT ASSEMBLIES AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. THE IRON PIN AND CAP (WHEN REQUIRED) ARE TO BE INSTALLED BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN IN THIS TABLE, REQUIRE PRIOR APPROVAL FROM THE DELAWARE COUNTY ENGINEER'S OFFICE. IN THE EVENT THAT CHANGES OR ALTERATIONS ARE APPROVED, A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE DELAWARE COUNTY RECORDS. SPECIFICATIONS FOR MONUMENT ASSEMBLIES, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON THE OHIO DEPARTMENT OF TRANSPORTATION'S STANDARD CONSTRUCTION DRAWING RM-1.1.

BASIS FOR BEARINGS:

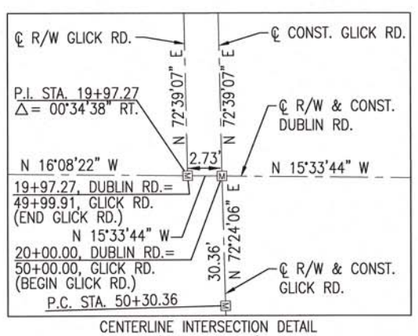
BEARINGS ARE BASED ON THE BEARING BETWEEN DELAWARE COUNTY ENGINEER'S MONUMENTS "97-006" & "97-142" BEING NORTH 72 DEGREES 52 MINUTES 25 SECONDS EAST, AS MEASURED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, 2007 ADJUSTMENT.

DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545, CITY OF DUBLIN, VILLAGE OF SHAWNEE HILLS



MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- EXISTING CONCRETE MONUMENT
- PROPOSED CONCRETE MONUMENT
- RAILROAD SPIKE FOUND
- RAILROAD SPIKE SET
- I.R.F. IRON PIN FOUND
- I.R.F. IRON PIN FOUND W/ ID CAP
- I.R.S. IRON PIN SET W/ ID CAP
- R.F. IRON PIPE FOUND
- R.S. IRON PIPE SET
- R.K.F. P.K. NAIL FOUND
- R.K.S. P.K. NAIL SET



CENTERLINE INTERSECTION DETAIL
(NOT TO SCALE)

MONUMENT TABLE

MONUMENTS TO BE SET DURING CONSTRUCTION		MONUMENT COORDINATES (SEE SURVEY CERTIFCATION)		
STATION	OFFSET	NORTH (Y)	EAST (X)	MON. ASSY.
℄ R/W DUBLIN RD.				
P.O.T. 15+00.00	℄	177749.817	1791785.092	1
P.O.T. 19+97.27	℄	178227.487	1791646.864	1
P.O.T. 20+00.00	℄	178230.119	1791646.131	1
P.O.T. 25+00.00	℄	178711.789	1791511.989	1
℄ R/W GLICK RD.				
P.O.T. 45+00.00	℄	178078.425	1791169.690	1
P.C. 50+30.36	℄	178239.298	1791675.071	1
P.T. 54+29.78	℄	178231.355	1792067.314	1
TOTAL CARRIED TO GENERAL SUMMARY SHEET				7

W.E. STILSON CONSULTING GROUP CONDUCTED A SURVEY OF THE EXISTING CONDITIONS FOR THE CITY OF DUBLIN, IN 2010. THE RESULTS OF THAT SURVEY ARE CONTAINED HEREIN. THE HORIZONTAL COORDINATES EXPRESSED HEREIN ARE BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE ON NAD 83 (2007) DATUM. THE PROJECT COORDINATES (US SURVEY FEET) ARE RELATIVE TO STATE PLANE GRID COORDINATES (US SURVEY FEET) BY A PROJECT ADJUSTMENT FACTOR MULTIPLIER OF 1.000000000. AS A PART OF THIS PROJECT THE LOCATIONS OF THE EXISTING PROPERTY LINES AND CENTERLINE OF EXISTING RIGHT OF WAY FOR PROPERTY TAKES HAS BEEN ESTABLISHED AND IS CONTAINED HEREIN. ALL OF THE WORK CONTAINED HEREIN WAS CONDUCTED IN ACCORDANCE WITH OHIO ADMINISTRATIVE CODE 4733-37 COMMONLY KNOWN AS "A MINIMUM STANDARDS FOR BOUNDARY SURVEYS IN THE STATE OF OHIO" UNLESS NOTED.

STATE OF OHIO
STEVEN L. MULLANEY
7900
REGISTERED
SURVEYOR

STEVEN L. MULLANEY, PROFESSIONAL LAND SURVEYOR NO. 7900 — 4/1/2014 DATE

RECEIVED _____ ,20 ___
RECORDED _____ ,20 ___
BOOK _____ PAGE _____
DELAWARE COUNTY RECORDER

N

HORIZONTAL SCALE IN FEET 0 50 100 200

R/W DESIGNER NLC
R/W REVIEWER SLM

CENTERLINE PLAT

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\ROW\sheets\10917RC001.dwg Layout: CENTERLINE PLAT
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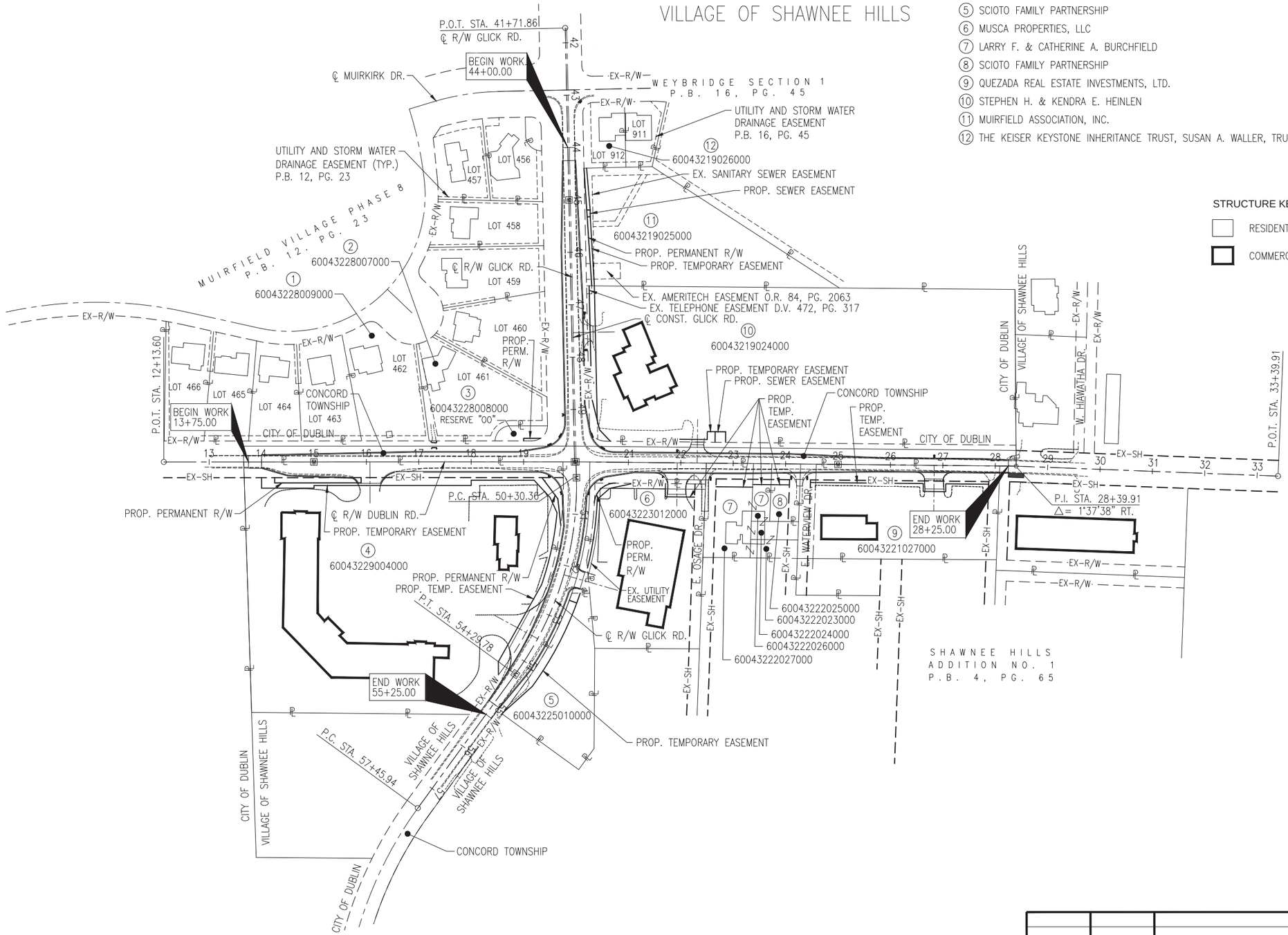
DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545, CITY OF DUBLIN, VILLAGE OF SHAWNEE HILLS

1. JAMES M. & MELINDA K. ROLAND
2. RAHIM G. & JOANN E. HAGHIGHI, RGH MANAGEMENT TRUST, RAHIM G. HAGHIGHI, TRUSTEE
3. MUIRFIELD ASSOCIATION, INC.
4. MARY J. WILLISTON, TRUSTEE OF THE MARY J. WILLISTON TRUST
5. SCIOTO FAMILY PARTNERSHIP
6. MUSCA PROPERTIES, LLC
7. LARRY F. & CATHERINE A. BURCHFIELD
8. SCIOTO FAMILY PARTNERSHIP
9. QUEZADA REAL ESTATE INVESTMENTS, LTD.
10. STEPHEN H. & KENDRA E. HEINLEN
11. MUIRFIELD ASSOCIATION, INC.
12. THE KEISER KEYSTONE INHERITANCE TRUST, SUSAN A. WALLER, TRUSTEE



N

HORIZONTAL SCALE IN FEET 0 50 100 200

R/W DESIGNER NLC
R/W REVIEWER SLM

PROPERTY MAP

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

REV. BY	DATE	DESCRIPTION
N.L.C.	4/22/14	10–WD, 10–T2

DATE COMPLETED: 2/24/2014

2 / 9

69 / 76

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\ROW\sheets\10917RM001.dwg Layout: PROPERTY MAP
Date: Apr 22, 2014 Time: 9:41 am Twist: –1.5707963

TOTAL NUMBER OF:

12 OWNERSHIPS
19 PARCELS

0 TOTAL TAKES
0 OWNERSHIPS W/STRUCTURES INVOLVED

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES

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

R/W DESIGNER NLC
R/W REVIEWER SLM

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD	AUDITOR'S 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	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1	JAMES M. & MELINDA K. ROLAND	4	O.R. 355, PG. 1516	60043228009000	0.636	0.000	0.000	0.000	0.000	NO			CITY	NO TAKE FROM THIS PARCEL		
2	RAHIM G. & JOANN E. HAGHIGHI, RGH MANAGEMENT	4	O.R. 1112, PG. 59	60043228007000	0.745	0.000	0.000	0.000	0.000					NO TAKE FROM THIS PARCEL		
	TRUST, RAHIM G. HAGHIGHI, TRUSTEE	4														
3-WD	MUIRFIELD ASSOCIATION, INC.	5	P.B. 12, PG. 23	60043228008000	0.060	0.000	0.003	0.000	0.003		0.057			* SIGN(TO BE RELOCATED)		
4-WDV	MARY J. WILLISTON, TRUSTEE OF THE MARY J.	4-5, 8-9	O.R. 738, PG. 2445	60043229004000	6.053	0.419	0.472	0.419	0.053			5.581		* STONE SIGN (SAVE), SIGN, STONE WALL, IN THE NAME OF THE		
	WILLISTON TRUST													VILLAGE OF SHAWNEE HILLS		
4-T		4-5, 8-9					0.259	0.000	0.259					FOR GRADING AND DRIVE CONSTRUCTION		
5-WDV	SCIOTO FAMILY PARTNERSHIP, AN OHIO GENERAL	8-9	D.V. 555, PG. 572	60043225010000	0.739	0.000	0.006	0.000	0.006		0.733			IN THE NAME OF THE VILLAGE OF SHAWNEE HILLS		
5-T	PARTNERSHIP	9					0.074	0.000	0.074					FOR GRADING		
6-WDV	MUSCA PROPERTIES, LLC, AN OHIO LIMITED	5	O.R. 399, PG. 62	60043223012000	1.543	0.000	0.007	0.000	0.007		1.536			SIGN, IN THE NAME OF THE VILLAGE OF SHAWNEE HILLS		
	LIABILITY COMPANY															
6-T1		5, 8					0.027	0.000	0.027					FOR GRADING		
6-T2		5					0.032	0.000	0.032					FOR GRADING AND DRIVE CONSTRUCTION		
	TOTAL						0.059	0.000	0.059							
7-T	LARRY F. & CATHERINE A. BURCHFIELD	5	O.R. 222, PG. 1736	60043222026000	0.087	0.025	0.008	0.000	0.008					FOR GRADING		
			D.V. 624, PG. 692	60043222027000	0.373	0.131	0.024	0.000	0.024							
	TOTAL				0.460	0.156	0.032	0.000	0.032							
8-T	SCIOTO FAMILY PARTNERSHIP, AN OHIO GENERAL	5-6	O.R. 41, PG. 2515	60043222025000	0.139	0.075	0.008	0.000	0.008					FOR GRADING		
	PARTNERSHIP															
9-T	QUEZADA REAL ESTATE INVESTMENTS, LTD.	6	D.V. 655, PG. 1943	60043221027000	1.188	0.399	0.054	0.000	0.054					FOR GRADING AND DRIVE CONSTRUCTION		
10-WD	STEPHEN H. & KENDRA E. HEINLEN	5, 7-8	D.V. 538, PG. 110	60043219024000	5.560	0.000	0.052	0.000	0.052					SIGN		
10-S		5					0.009	0.000	0.009					TO CONSTRUCT AND MAINTAIN STORM SEWER STRUCTURE		
	TOTAL						0.061	0.000	0.061		5.499					
10-T1		5					0.016	0.000	0.016					FOR GRADING, TAKE 13' OF WOODEN RAIL BARRIER		
10-T2		5, 7-8					0.054	0.000	0.054					FOR GRADING AND DRIVE CONSTRUCTION		
	TOTAL						0.070	0.000	0.070							
11-WD	MUIRFIELD ASSOCIATION, INC.	7	D.B. 377, PG. 418	60043219025000	1.600	0.000	0.026	0.000	0.026							
11-S		7					0.002	0.000	0.002					TO CONSTRUCT AND MAINTAIN STORM SEWER STRUCTURE		
	TOTAL						0.028	0.000	0.028		1.572					
11-T1		7					0.011	0.000	0.011					FOR GRADING		
11-T2		7					0.016	0.000	0.016					FOR GRADING		
	TOTAL						0.027	0.000	0.027							
12	THE KEISER KEYSTONE INHERITANCE TRUST,	7	D.V. 1123, PG. 2568	60043219026000	0.227	0.000	0.000	0.000	0.000	NO			CITY	NO TAKE FROM THIS PARCEL		
	SUSAN A. WALLER, TRUSTEE															

LEGEND:
WD = WARRANTY DEED
WDV = WARRANTY DEED FOR LOCAL AUTHORITY
S = SEWER EASEMENT
T = TEMPORARY EASEMENT

NOTES:
1. ALL TEMPORARY PARCELS ARE TO BE OF 18 MONTHS DURATION.
2. UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

* DENOTES ENCROACHMENT

REV. BY	DATE	DESCRIPTION
N.L.C.	4/30/14	4-WDV, 4-T
N.L.C.	4/22/14	10-WD, 10-T2

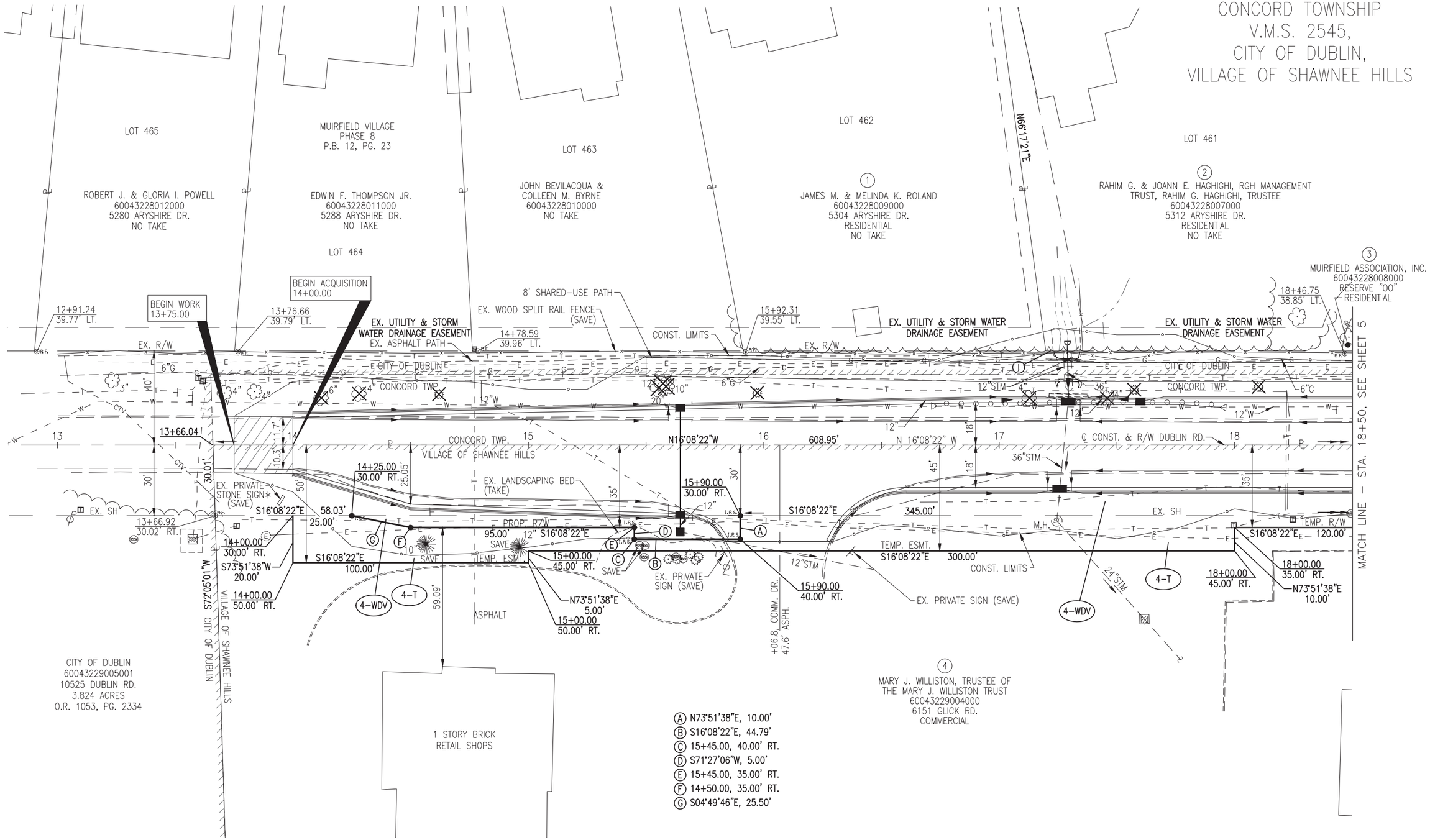
DATE COMPLETED: 2/24/2014
OWNERSHIP VERIFIED BY: NLC DATE: 2/24/2014

SUMMARY OF ADDITIONAL RIGHT OF WAY

DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\ROW\sheets\10917RS001.dwg Layout: SUMMARY
Date: Apr 30, 2014 Time: 3:55 pm Twist: -1.57079633

DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545,
CITY OF DUBLIN,
VILLAGE OF SHAWNEE HILLS



Ⓐ N73°51'38"E, 10.00'
Ⓑ S16°08'22"E, 44.79'
Ⓒ 15+45.00, 40.00' RT.
Ⓓ S71°27'06"W, 5.00'
Ⓔ 15+45.00, 35.00' RT.
Ⓕ 14+50.00, 35.00' RT.
Ⓖ S04°49'46"E, 25.50'

* DENOTES ENCROACHMENT

REV. BY	DATE	DESCRIPTION
N.L.C.	4/30/14	4-WDV, 4-T

DATE COMPLETED: 2/24/2014

HORIZONTAL SCALE IN FEET 0 10 20 40

R/W DESIGNER NLC
R/W REVIEWER SLM

RIGHT OF WAY DETAIL SHEET
DUBLIN RD. - STA. 13+00 TO STA. 18+50

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\ROW\sheets\10917RD001.dwg Layout: DUBLIN1
Date: Apr 30, 2014 Time: 3:40 pm Twist: -1.5707963.3

(A) STA. 20+00, DUBLIN RD. = STA. 50+00, GLICK RD. Δ = 00°15'01" LT., GLICK RD.
(B) 19+75.78, 31.02' RT.
(C) S67°35'06"W, 51.36'
(D) 51+22.00, 35.00' RT.
(E) S36°56'08"W, 50.67'
(F) 19+35.00, 30.00' RT.
(G) S49°16'59"W, 31.69'
(H) S73°51'38"W, 5.00'
(I) N16°08'22"W, 32.36'
(J) 19+15.77, 40.00' LT.
(K) S16°08'22"E, 15.77'
(L) S31°06'49"W, 44.98'
(M) N59°58'18"E, 63.78'(10-WD)
(N) N15°33'44"W, 39.54'
(O) S57°10'07"E, 31.85'
(P) 22+27.61, 40.00' RT.
(Q) 22+47.75, 35.00' RT.
(R) 22+67.89, 30.00' RT.
(S) N76°00'48"E, 10.00'
(T) N75°58'04"E, 5.00'
(U) 22+67.49, 45.00' RT.
(V) 23+72.87, 30.00' RT.
(W) S15°33'44"E, 35.02'
(X) S59°58'18"W, 45.55'(10-T2)
(Y) 20+65.00, 40.00' LT.
(Z) S15°33'44"E, 9.88'
(A1) 20+55.12, 40.00' LT.
(B1) 49+31.75, 30.00' LT.
(C1) S72°39'07"W, 267.13'
(D1) S74°26'16"W, 20.00'
(E1) S16°08'22"E, 22.28'
(F1) N72°24'06"E, 1.01'
(G1) S16°08'22"E, 40.76'
(H1) N15°33'44"W, 36.35'
(I1) N74°26'16"E, 40.00'
(J1) S74°26'16"W, 40.00'
(K1) N15°33'44"W, 35.02'

DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545,
CITY OF DUBLIN,
VILLAGE OF SHAWNEE HILLS

C1
Δ = 08°53'21" RT.
R = 585.00'
L = 90.76'
Ch Brg = N76°50'47"E
Ch = 90.67'

C2
Δ = 33°33'26" RT.
R = 30.00'
L = 17.57'
Ch Brg = S32°55'05"E
Ch = 17.32'

C9
Δ = 87°39'30" LT.
R = 40.00'
L = 61.20'
Ch Brg = S59°23'29"E
Ch = 55.40'

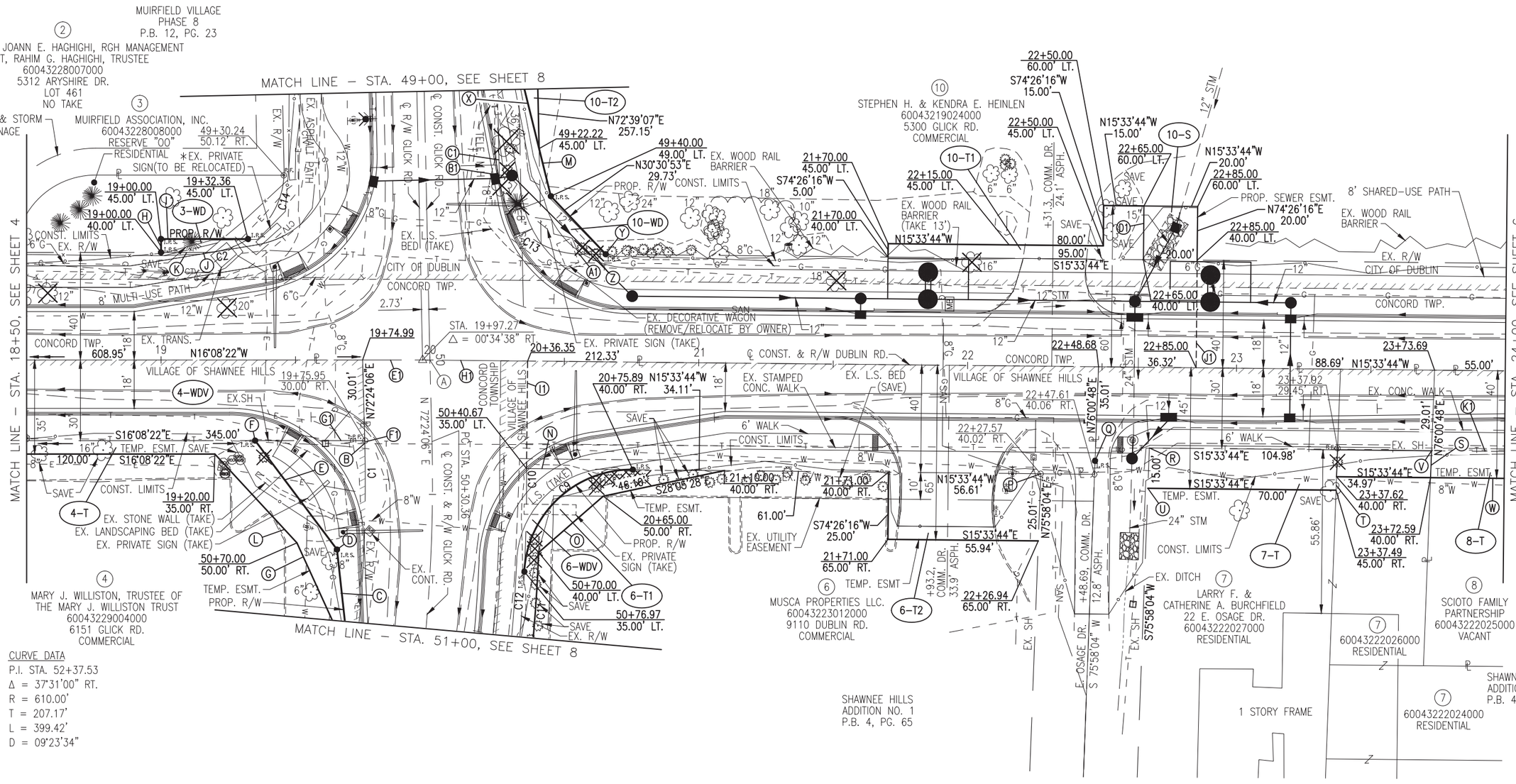
C10
Δ = 03°24'32" LT.
R = 645.00'
L = 38.38'
Ch Brg = S75°04'30"W
Ch = 38.37'

C11
Δ = 11°43'00" RT.
R = 650.00'
L = 132.92'
Ch Brg = N81°59'00"E
Ch = 132.69'

C12
Δ = 09°44'27" LT.
R = 645.00'
L = 109.66'
Ch Brg = S81°38'59"W
Ch = 109.53'

C13
Δ = 88°12'51" RT.
R = 30.00'
L = 46.19'
Ch Brg = S28°32'41"W
Ch = 41.76'

C14
Δ = 53°56'25" RT.
R = 30.00'
L = 28.24'
Ch Brg = S76°40'00"E
Ch = 27.21'



* DENOTES ENCROACHMENT

REV. BY	DATE	DESCRIPTION
N.L.C.	4/22/14	10–WD, 10–T2

DATE COMPLETED: 2/24/2014

HORIZONTAL SCALE IN FEET 0 10 20 40

R/W DESIGNER NLC
R/W REVIEWER SLM

RIGHT OF WAY DETAIL SHEET
DUBLIN RD. - STA. 18+50 TO STA. 24+00

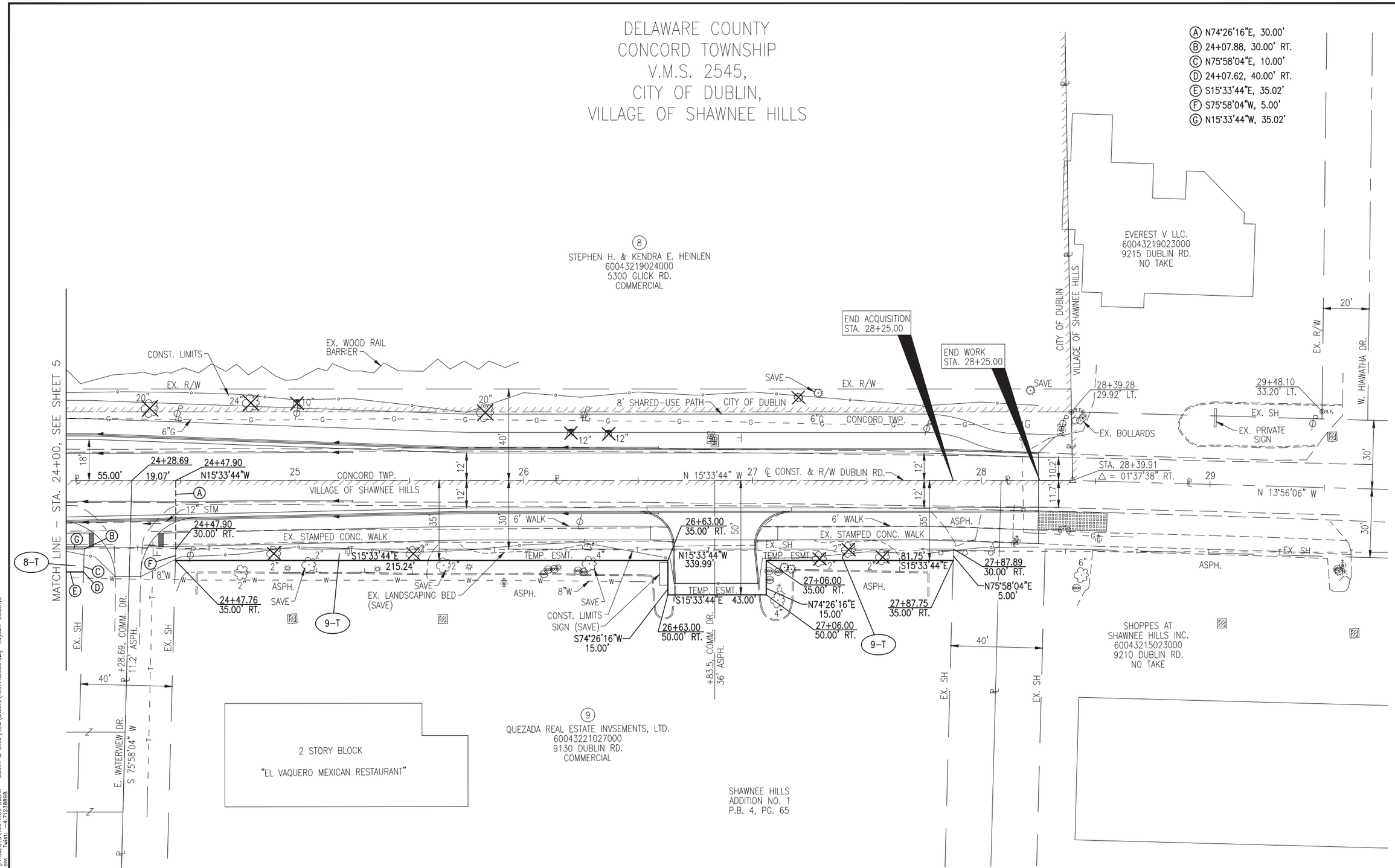
DUBLIN ROAD & GLICK ROAD INTERSECTION IMPROVEMENTS

5/9

72/76

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\ROW\sheets\10917R0002.dwg Layout: DUBLIN2
Date: May 01, 2014 Time: 10:05 am Twist: -1.57079633

DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545,
CITY OF DUBLIN,
VILLAGE OF SHAWNEE HILLS



REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 2/24/2014

HORIZONTAL SCALE IN FEET: 0 10 20 40

R/W DESIGNER: NLC
R/W REVIEWER: SLM

RIGHT OF WAY DETAIL SHEET
DUBLIN RD. - STA. 24+00 TO STA. 29+50

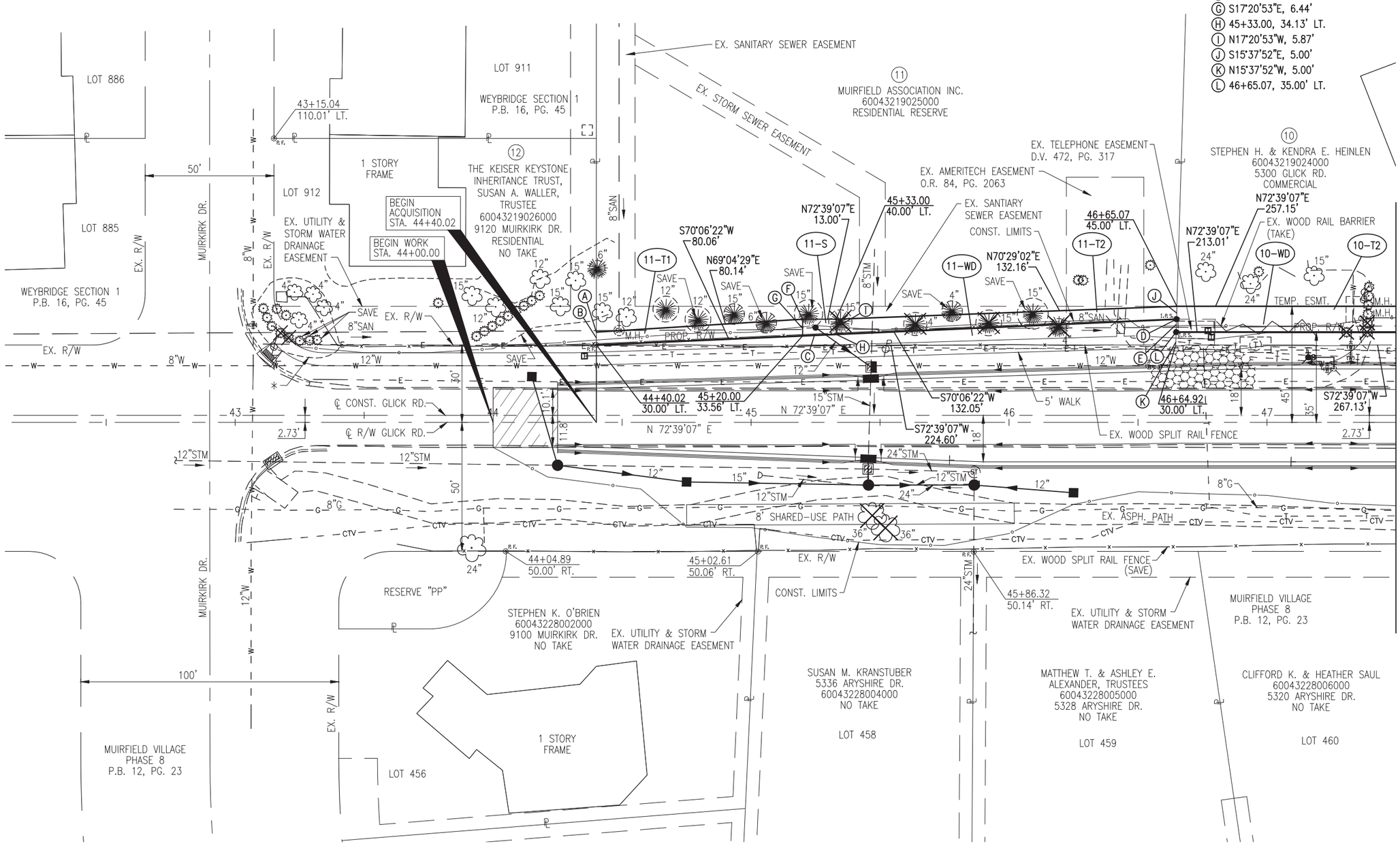
DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\ROW\sheets\10917R003.dwg Layout: DUBLIN3
Date: Apr 01, 2014 Time: 9:07 am Twist: -4.7123898

DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545,
CITY OF DUBLIN

* DENOTES ENCROACHMENT

(A) 44+40.02, 35.00' LT.
(B) S17°20'39"E, 5.00'
(C) S70°06'22"W, 13.01'
(D) 46+64.92, 40.00' LT.
(E) S15°37'52"E, 5.00'
(F) 45+20.00, 40.00' LT.
(G) S17°20'53"E, 6.44'
(H) 45+33.00, 34.13' LT.
(I) N17°20'53"W, 5.87'
(J) S15°37'52"E, 5.00'
(K) N15°37'52"W, 5.00'
(L) 46+65.07, 35.00' LT.



REV. BY	DATE	DESCRIPTION
N.L.C.	4/22/14	10–WD, 10–T2

DATE COMPLETED: 2/24/2014

HORIZONTAL SCALE IN FEET 0 10 20 40

R/W DESIGNER NLC
R/W REVIEWER SLM

RIGHT OF WAY DETAIL SHEET
GLICK RD. - STA. 42+50 TO STA. 47+50

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\ROW\sheets\10917RD004.dwg Layout: GLICK1
Date: Apr 22, 2014 Time: 9:44 am Twist: -1.57079633

DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545,
CITY OF DUBLIN,
VILLAGE OF SHAWNEE HILLS

(A) STA. 20+00, DUBLIN RD. = STA. 50+00, GLICK RD.
Δ = 00°15'01" LT., GLICK RD.
(B) 51+25.00, 25.00' RT.
(C) 52+46.07, 25.00' LT.
(D) N15°47'41"W, 15.79'
(E) 51+94.74, 40.00' LT.
(F) S68°40'09"W, 15.75'
(G) 51+80.67, 35.00' LT.
(H) N02°39'48"E, 25.00'

C3
Δ = 28°27'39" RT.
R = 585.00'
L = 290.59'
Ch Brg = S84°23'43"E
Ch = 289.26'

C4
Δ = 14°05'21" LT.
R = 575.00'
L = 141.39'
Ch Brg = S85°59'15"W
Ch = 141.04'

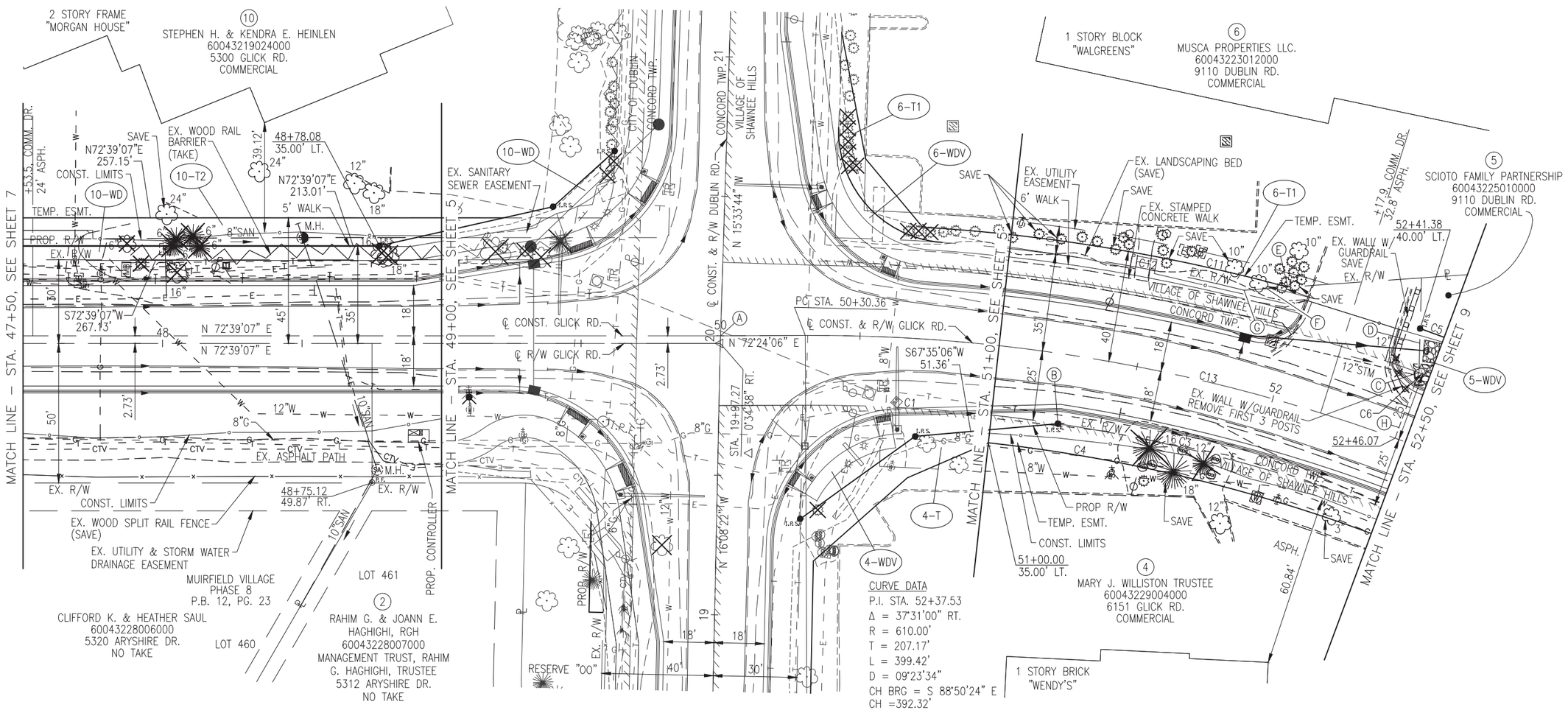
C5
Δ = 01°44'55" RT.
R = 650.00'
L = 19.84'
Ch Brg = S86°54'11"E
Ch = 19.84'

C6
Δ = 01°18'29" LT.
R = 635.00'
L = 14.50'
Ch Brg = N86°40'58"W
Ch = 14.50'

C11
Δ = 11°43'00" RT.
R = 650.00'
L = 132.92'
Ch Brg = N81°59'00"E
Ch = 132.69'

C12
Δ = 09°44'27" LT.
R = 645.00'
L = 109.66'
Ch Brg = S81°38'59"W
Ch = 109.53'

C13
Δ = 20°15'41" RT.
R = 610.00'
L = 215.71'
Ch Brg = N82°31'57"E
Ch = 214.59'



N.L.C.	4/22/14	10–WD, 10–T2
REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 2/24/2014

HORIZONTAL SCALE IN FEET 0 10 20 40

R/W DESIGNER NLC
R/W REVIEWER SLM

RIGHT OF WAY DETAIL SHEET
GLICK RD. - STA. 47+50 TO STA. 52+50

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin – Dublin & Glick\ROW\sheets\10917R0005.dwg Layout: GLICK2
Date: Apr 22, 2014 Time: 9:45 am Twist: -1.57079633

DELAWARE COUNTY
CONCORD TOWNSHIP
V.M.S. 2545, CITY OF DUBLIN,
VILLAGE OF SHAWNEE HILLS

C3
Δ = 28°27'39" RT.
R = 585.00'
L = 290.59'
Ch Brg = S84°23'43"E
Ch = 289.26'

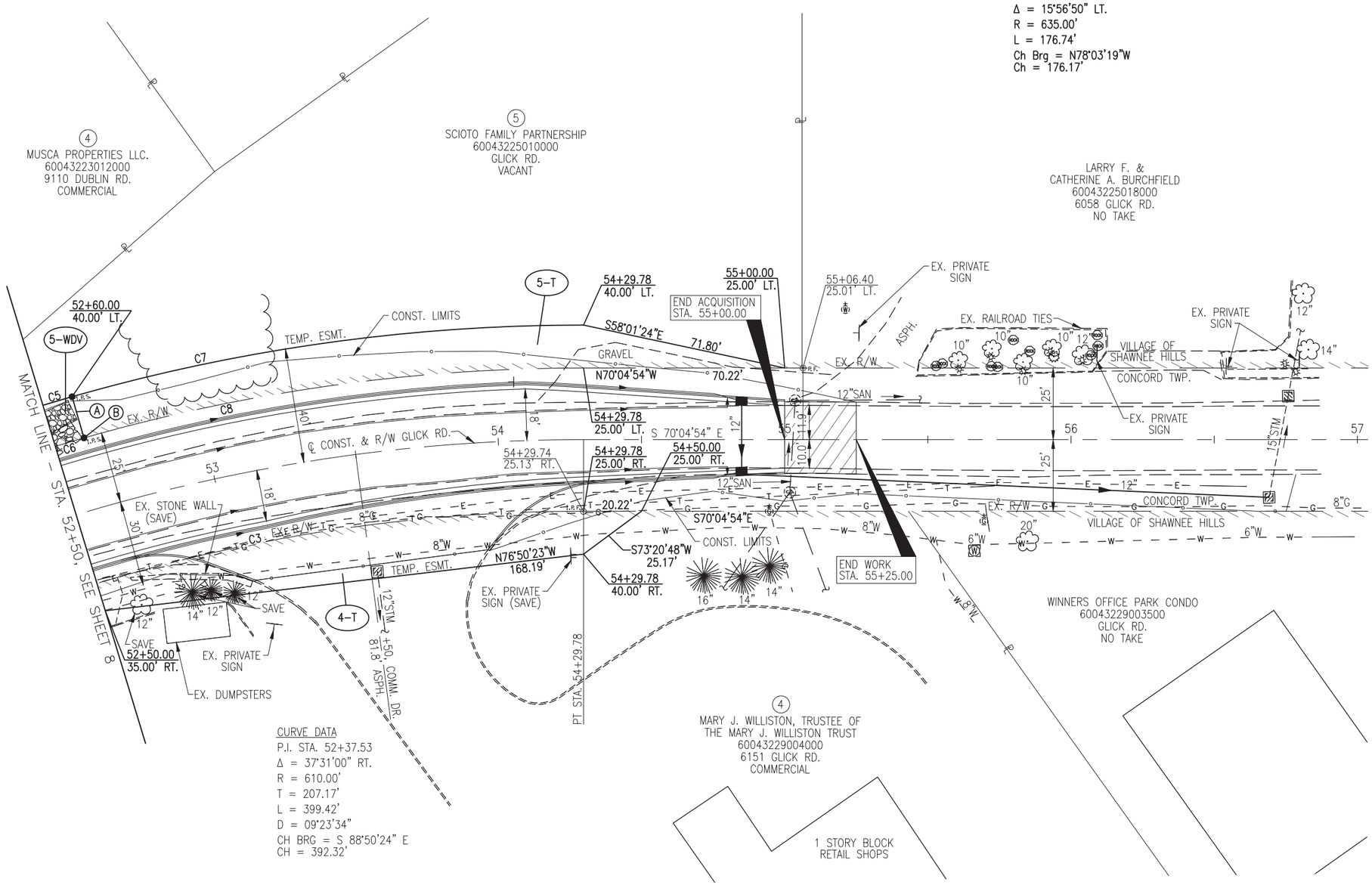
C5
Δ = 01°44'55" RT.
R = 650.00'
L = 19.84'
Ch Brg = S86°54'11"E
Ch = 19.84

C6
Δ = 01°18'29" LT.
R = 635.00'
L = 14.50'
Ch Brg = N86°40'58"W
Ch = 14.50'

C7
Δ = 15°56'50" RT.
R = 650.00'
L = 180.92'
Ch Brg = S78°03'19"E
Ch = 180.33'

C8
Δ = 15°56'50" LT.
R = 635.00'
L = 176.74'
Ch Brg = N78°03'19"W
Ch = 176.17'

(A) S03°58'17"W, 15.00'
(B) 52+60.00, 25.00' LT.



CURVE DATA
P.I. STA. 52+37.53
Δ = 37°31'00" RT.
R = 610.00'
T = 207.17'
L = 399.42'
D = 09°23'34"
CH BRG = S 88°50'24" E
CH = 392.32'

HORIZONTAL SCALE IN FEET 0 10 20 40

R/W DESIGNER NLC
R/W REVIEWER SLM

RIGHT OF WAY DETAIL SHEET
GLICK RD. - STA. 52+50 TO STA. 57+00

DUBLIN ROAD & GLICK ROAD
INTERSECTION IMPROVEMENTS

9 / 9

76
76

REV. BY	DATE	DESCRIPTION

DATE COMPLETED: 2/24/2014

Drawing File: I:\Cad\PRODUCTION\PROJECTS\10917.00 Dublin - Dublin & Glick\ROW\sheets\10917R0006.dwg Layout: GLICK3
Date: Apr 01, 2014 Time: 9:11 am Twist: -4.71238898