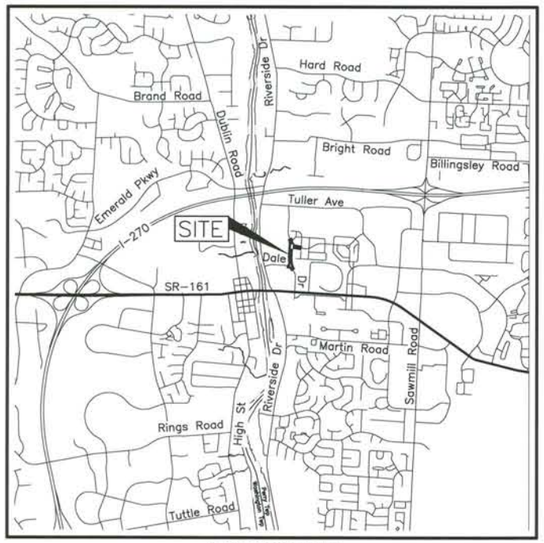

LOCATION MAP

Latitude: N40°06'10" *Longitude: W83°06'25"*

Scale: 1" = 1/2 Mile

0 1/2 1 1 1/2 2

N

Portion To Be Improved
Interstate Highway
State & Federal Routes
County & Township Roads
Other Roads

VERTICAL DATUM

The Vertical Datum is based on the elevation established by the Franklin County Engineering Department, at monument FRANK 73, being 801.706 feet in elevation. The elevation was transferred from said Franklin County Engineering Department monuments using static GPS procedures (03Geoid) and differential leveling to the site. Monument N45, being 826.994 feet in elevation, and monument A5, being 850.413 feet in elevation were used as vertical checks. The said monuments being source bench marks with elevations that are based on the North American Vertical Datum of 1988.

HORIZONTAL DATUM

The coordinates shown on this map are based on the Ohio State Plane Coordinate System, South Zone, NAD 83 (1986). Said coordinates originated from a field traverse which was tied (referenced) to said coordinate system by GPS observations of Franklin County Engineering Department monuments FRANK 73, and FRANK 74. The grid to ground scale factor (1.00001917996982) was applied at the location of point #273.

PREPARED BY:

EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 888.775.3648
emht.com

ENGINEERS SEAL:

STATE OF OHIO
MICHAEL ROBERT BREHM
E-72766
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: [signature]
DATE: 7-02-2014

CITY OF DUBLIN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

CIP# 14-015

INDEX OF SHEETS:

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General Notes	*4–6*
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Storm Water Pollution Prevention Plan	*22–24*
General Summary	*25*
Plan and Profile – Dale–Tuller Connector	*26–28*
Cross Sections – Dale–Tuller Connector	*29–36*
Storm Sewer Outlet Ditch Plan and Profile	*37*
Plan and Profile – Tuller Ridge Drive	*38*
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Grading Detail	*41*
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STANDARD CONSTRUCTION DRAWINGS

CITY OF DUBLIN		CITY OF COLUMBUS				ODOT						SUPPLEMENTAL SPECIFICATIONS	
												ODOT	
PD–02	09/18/06	1441	12/01/13	AA–S169	12/06/13	BP–3.1	04/20/12	MT–110.10	07/19/13	800	04/18/14
PD–03	09/18/06	2000	06/01/14								
				L–1003	05/14/13	DM–1.1	01/18/13	TC–41.20	10/18/13		
RD–02	09/18/06	AA–S102	12/06/13	L–6306	05/14/13	DM–1.2	01/18/13	TC–42.20	10/18/13		
RD–05	09/18/06	AA–S106	07/09/12	L–6309A	05/14/13	DM–4.2	07/20/12	TC–52.10	10/18/13		
RD–06	09/18/06	AA–S107	07/09/12	L–6309E	05/14/13			TC–52.20	01/17/14		
RD–10	09/18/06	AA–S111	12/06/13	L–6310	05/14/13	HL–30.11	01/17/14	TC–71.10	01/17/14	CITY OF COLUMBUS	
		AA–S112	12/06/13							1100	05/01/14
SA–01	09/18/06			L–6311	05/14/13	MT–95.30	07/19/13	TC–82.10	10/18/13		
SA–02	09/18/06	AA–S115	12/06/13	L–6312	05/14/13	MT–95.31	07/19/13				
		AA–S119	07/09/12	L–6316A	05/14/13	MT–95.32	07/19/13				
ST–03	09/18/06	AA–S133A	12/06/13	L–6637A	05/16/13	MT–95.60	07/19/13				
ST–05	09/18/06	AA–S133B	12/06/13	L–6640	05/16/13	MT–95.61	07/19/13				
		AA–S136	10/30/12							SPECIAL PROVISIONS	
WA–01	09/18/06					MT–97.10	07/19/13				
		AA–S139	12/06/13			MT–99.20	07/19/13			City of Dublin	
		AA–S141	12/06/13			MT–101.60	07/19/13			General Conditions,	
		AA–S151	07/09/12			MT–101.90	07/19/13			Division 100	
		AA–S168	07/09/12			MT–105.10	07/19/13				

City of Dublin

PROJECT DESCRIPTION

This project includes construction of a new asphalt roadway, storm sewer, water main, traffic control devices, electrical duct bank, and telecommunications duct bank.

SPECIFICATIONS

City of Columbus and Ohio Department of Transportation Construction and Material Specifications, current editions, and any supplements thereto (hereafter referred to as Standard Specifications), shall govern all construction items unless otherwise noted.

CITY OF DUBLIN APPROVALS

Signatures on this plan signify only concurrence with the general purpose and general location of the project. All technical details remain the responsibility of the Engineer preparing the plan.

City Engineer, City of Dublin, Ohio

CITY OF COLUMBUS

Approval on the part of the City of Columbus is given pursuant to the provisions of the water service agreement made between the City of Dublin and the City of Columbus, Ohio, on April 13, 1993 and all subsequent amendments thereof.

Administrator, Division of Water

Director, Division of Public Utilities

OHIO Utilities Protection SERVICE
811 or 1-800-362-2764 Call Before You Dig

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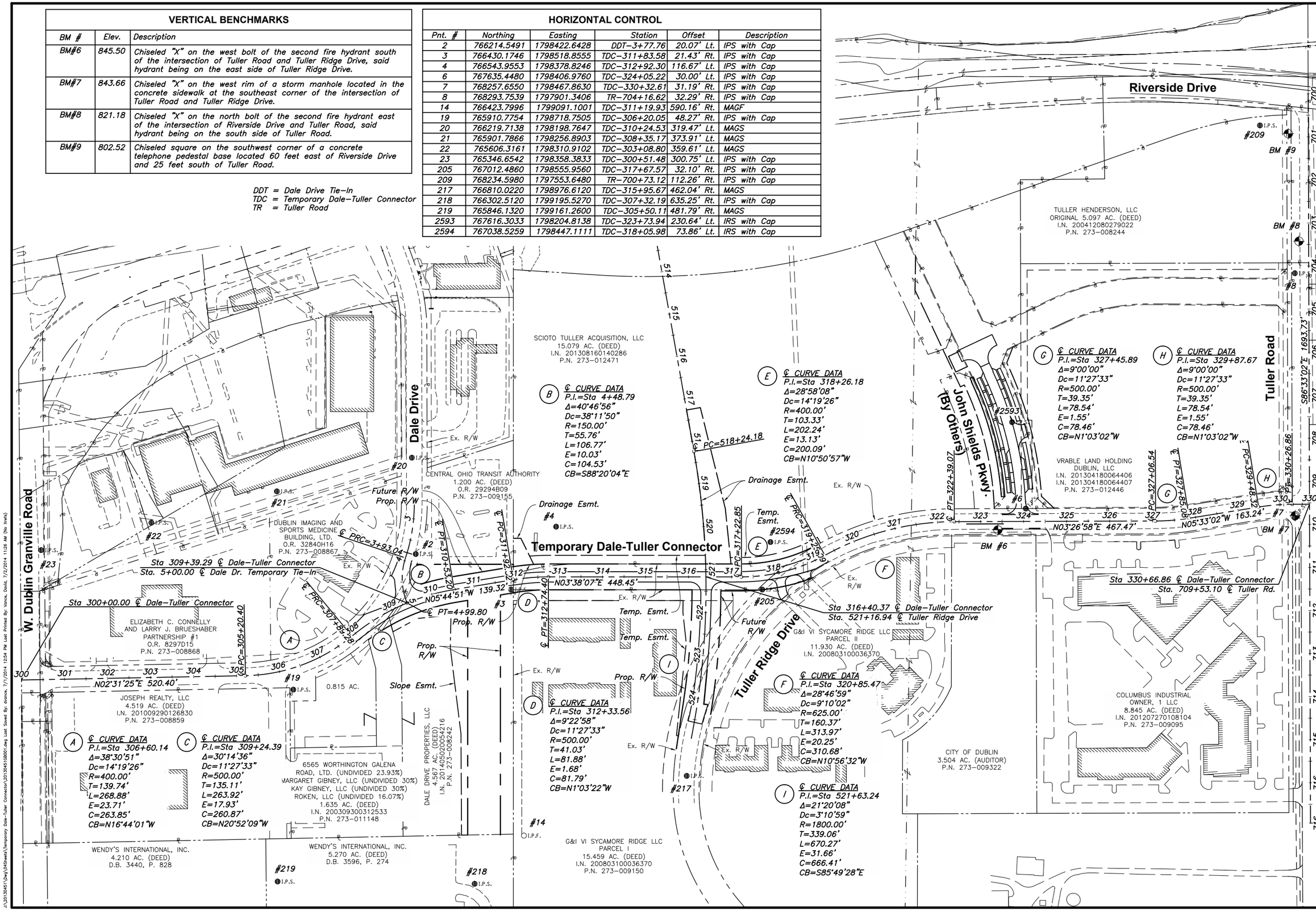
VERTICAL BENCHMARKS

BM #	Elev.	Description
BM#6	845.50	Chiseled "X" on the west bolt of the second fire hydrant south of the intersection of Tuller Road and Tuller Ridge Drive, said hydrant being on the east side of Tuller Ridge Drive.
BM#7	843.66	Chiseled "X" on the west rim of a storm manhole located in the concrete sidewalk at the southeast corner of the intersection of Tuller Road and Tuller Ridge Drive.
BM#8	821.18	Chiseled "X" on the north bolt of the second fire hydrant east of the intersection of Riverside Drive and Tuller Road, said hydrant being on the south side of Tuller Road.
BM#9	802.52	Chiseled square on the southwest corner of a concrete telephone pedestal base located 60 feet east of Riverside Drive and 25 feet south of Tuller Road.

DDT = Dale Drive Tie–In
TDC = Temporary Dale–Tuller Connector
TR = Tuller Road

HORIZONTAL CONTROL

Pnt. #	Northing	Easting	Station	Offset	Description
2	766214.5491	1798422.6428	DDT–3+77.76	20.07' Lt.	IPS with Cap
3	766430.1746	1798518.8555	TDC–311+83.58	21.43' Rt.	IPS with Cap
4	766543.9553	1798378.8246	TDC–312+92.30	116.67' Lt.	IPS with Cap
6	767635.4480	1798406.9760	TDC–324+05.22	30.00' Lt.	IPS with Cap
7	768257.6550	1798467.8630	TDC–330+32.61	31.19' Rt.	IPS with Cap
8	768293.7539	1797901.3406	TR–704+16.62	32.29' Rt.	IPS with Cap
14	766423.7996	1799091.1001	TDC–311+19.93	590.16' Rt.	MAGF
19	765910.7754	1798718.7505	TDC–306+20.05	48.27' Rt.	IPS with Cap
20	766219.7138	1798198.7647	TDC–310+24.53	319.47' Lt.	MAGS
21	765901.7866	1798256.8903	TDC–308+35.17	373.91' Lt.	MAGS
22	765606.3161	1798310.9102	TDC–303+08.80	359.61' Lt.	MAGS
23	765346.6542	1798358.3833	TDC–300+51.48	300.75' Lt.	IPS with Cap
205	767012.4860	1798555.9560	TDC–317+67.57	32.10' Rt.	IPS with Cap
209	768234.5980	1797553.6480	TR–700+73.12	112.26' Rt.	IPS with Cap
217	766810.0220	1798976.6120	TDC–315+95.67	462.04' Rt.	MAGS
218	766302.5120	1799195.5270	TDC–307+32.19	635.25' Rt.	IPS with Cap
219	765846.1320	1799161.2600	TDC–305+50.11	481.79' Rt.	MAGS
2593	767616.3033	1798204.8138	TDC–323+73.94	230.64' Lt.	IRS with Cap
2594	767038.5259	1798447.1111	TDC–318+05.98	73.86' Lt.	IRS with Cap



CALCULATED EAM
CHECKED MRB

SCHEMATIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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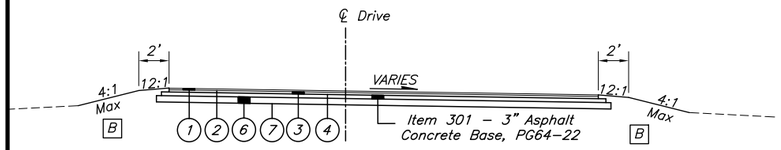
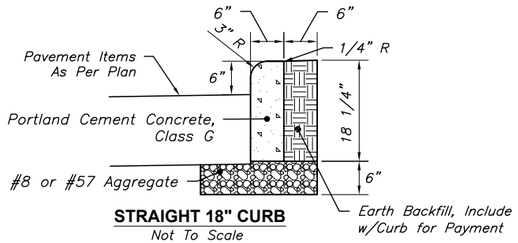


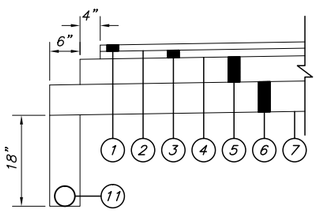
ASPHALT DRIVEWAY



STRAIGHT 18" CURB

Not To Scale

For details not shown, see Columbus SCD 2000



SHOULDER STEP DETAIL & TYPICAL PAVEMENT COMPOSITION

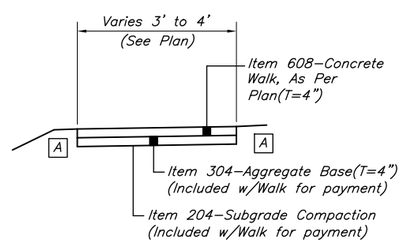
Not to scale

A See Cross Sections for Grading Details

B See Drive Details for Grading Details

C Ditch width varies at Vegetated Biofilters. See cross sections and storm water pollution prevention plan for locations.

D Cross slope varies on Dale–Tuller Connector at Tuller Ridge Drive. See Intersection Detail – Sheet 42

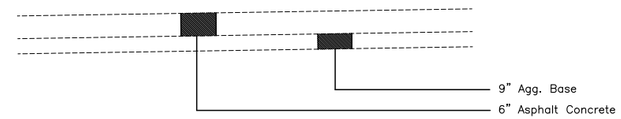


CONCRETE WALK, AS PER PLAN

Applies: Dale–Tuller Connector – Sta. 308+00.00 to Sta. 309+75.51 (Rt.)
Dale Drive Temporary Tie–In – Sta. 4+17.60 to Sta. 4+79.75 (Lt.)

LEGEND

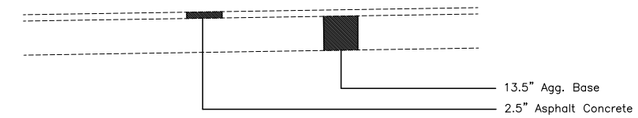
1. Item 448 – 1.25" Asphalt Concrete Surface Course (Medium Traffic), PG64–22
2. Item 407 – NTSS–1HM Trackless Tack Coat for Intermediate Course (0.06 Gal/SY)
3. Item 448 – 1.50" Asphalt Concrete Intermediate Course (Medium Traffic), PG64–22
4. Item 407 – NTSS–1HM Trackless Tack Coat (0.08 Gal/SY)
5. Item 301 – 5" Asphalt Concrete Base
6. Item 304 – 6" Aggregate Base
7. Item 204 – Subgrade Compaction and Proof Rolling
8. Item 653 – 4" Topsoil, Furnished and Placed
9. Item 659 – Seeding & Mulching, As Per Plan
10. Item 609 – Straight 18" Curb (See Detail Above)
11. Item 605 – 4" Pipe Underdrain (Included with Walk for Pavment)
12. Item 254 – 1.25" Pavement Planing, Asphalt Concrete
13. Item 448 – Variable Thickness Asphalt Concrete Intermediate Course (Medium Traffic), PG64–22
14. Item 670 – Ditch Erosion Protection Mat, As Per Plan



EXISTING PAVEMENT BUILD-UP

Tuller Ridge Drive & Tuller Road
(Based on Record Plans)
Not to Scale

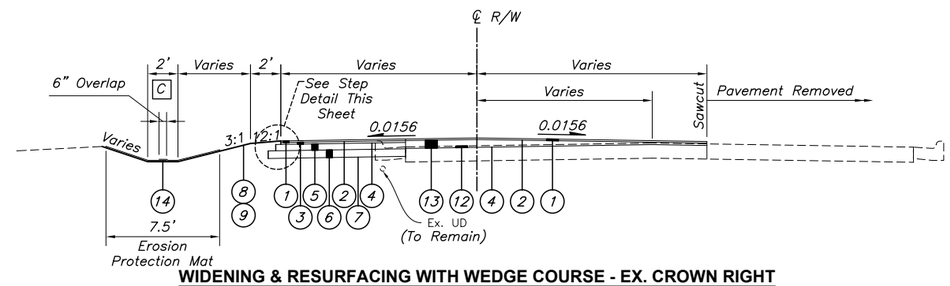
Note: At Sta. 319+40± sample pavement cores revealed the pavement build–up to be 11" of asphalt concrete and 7" of aggregate base. At Sta. 524+80± sample pavement cores revealed the pavement build–up to be 8" of asphalt concrete and 8" of aggregate base.



EXISTING PAVEMENT BUILD-UP

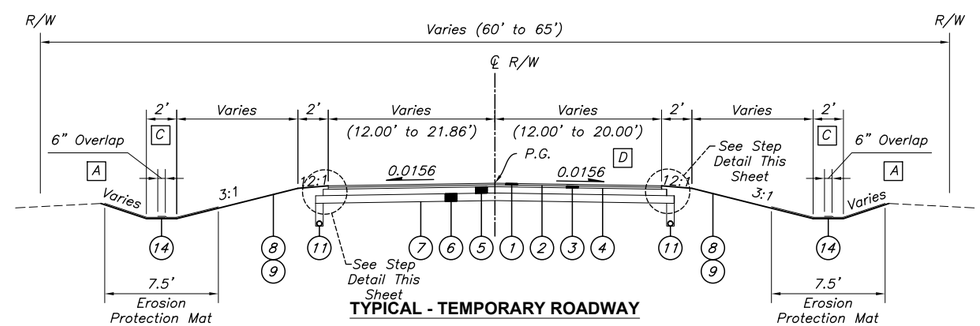
Dale Drive
(Based on Record Plans)
Not to Scale

Note: At Sta. 307+90± sample pavement cores revealed the pavement build–up to be 7" of asphalt concrete and 7" of aggregate base.



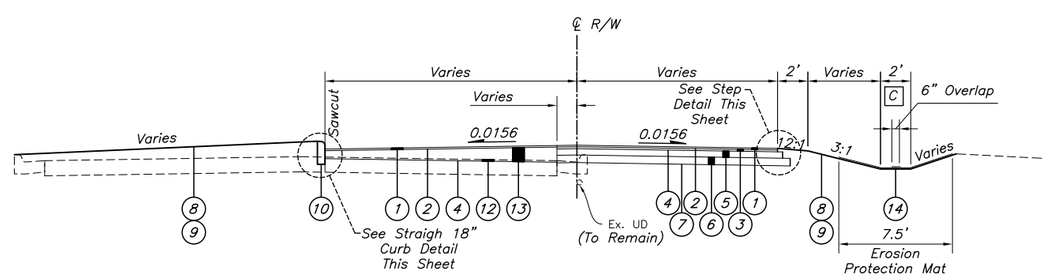
WIDENING & RESURFACING WITH WEDGE COURSE - EX. CROWN RIGHT

Dale–Tuller Connector – Sta. 318+36.94 to Sta. 319+25.09
Dale Drive Temporary Tie–In – Sta. 3+80.39 to Sta. 4+77.03



TYPICAL - TEMPORARY ROADWAY

Dale–Tuller Connector – Sta. 309+90.38 to Sta. 316+03.51
Dale–Tuller Connector – Sta. 316+03.51 to Sta. 316+77.51 (See Intersection Detail Sheet 42)
Dale–Tuller Connector – Sta. 316+77.51 to Sta. 318+36.94
Tuller Ridge Drive Extension – Sta. 521+53.71 to Sta. 523+71.74



WIDENING & RESURFACING WITH WEDGE COURSE - EX. CROWN LEFT

Dale–Tuller Connector – Sta. 307+89.28 to Sta. 308+94.99
Dale–Tuller Connector – Sta. 308+94.99 to Sta. 309+90.38 (See Intersection Detail Sheet 43)
Tuller Ridge Drive Extension – Sta. 523+71.74 to Sta. 524+56.25

CALCULATED JAG
CHECKED MRB

TYPICAL SECTIONS

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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CITY OF DUBLIN STANDARD GENERAL NOTES

GENERAL

City of Columbus and Ohio Department of Transportation Construction and Material Specifications, current editions, and any supplements thereto (hereafter referred to as Standard Specifications), shall govern all construction items unless otherwise noted. If a conflict between specifications is found, the more strict specification will apply as decided by the City Engineer. Item Numbers listed refer to City of Columbus Item Numbers unless otherwise noted.

The City Engineer will not be responsible for means, methods, procedures, techniques, or sequences of construction that are not specified herein. The City Engineer will not be responsible for safety on the work site, or for failure by the Contractor to perform work according to contract documents.

The Contractor shall notify the City of Dublin Division of Engineering in writing at least 14 days prior to beginning construction.

The Contractor shall be solely responsible for complying with all federal, state, and local safety requirements including the Occupational Safety and Health Act of 1970. The Contractor shall exercise precaution always for the protection of persons (including employees) and property. It shall also be the sole responsibility of the Contractor to initiate. maintain, and supervise all safety requirements, precautions and programs in connection with the work, including the requirements for confined spaces per 29 CFR 1910.146.

Following completion of construction, a proof survey shall be provided by the Contractor to the Division of Engineering that documents "as-built" elevations, dimensions, slopes, and alignments of all public utilities (sanitary, storm, water) completed as part of this project. The proof survey shall be prepared, signed, and submitted 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.

The Contractor shall restrict construction activity to public right-of-way and areas defined as permanent and/or temporary construction easements, unless otherwise authorized by the City Engineer.

The Contractor shall carefully preserve benchmarks, property corners, reference points, stakes, and other survey reference monuments or markers. In cases of willful or careless destruction, the Contractor shall be responsible for restorations. Resetting of markers shall be performed by an Ohio Professional Surveyor as approved by the City Engineer.

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

The Contractor shall restore all disturbed areas to equal or better condition than existed before construction. Drainage ditches or watercourses that are disturbed by construction shall be restored to the grades and cross-sections that existed before construction.

Tracking or spilling mud, dirt, or debris upon streets, residential or commercial drives, sidewalks, or bike paths is prohibited according to Section 97.38 of the Dublin Code of Ordinances. Any such occurrence shall be cleaned up immediately by the Contractor at no cost to the City. If the Contractor fails to remove said mud, dirt, debris, or spillage, the City reserves the right to remove these materials and clean affected areas, the cost of which shall be the responsibility of the Contractor.

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

All signs, landscaping, structures, or other appurtenances within right-of-way disturbed or damaged during construction shall be replaced or repaired to the satisfaction of the City Engineer. The cost of this work shall be the responsibility of the Contractor.

All field tile broken or encountered during excavation shall be replaced or repaired and connected to the public storm sewer system as directed by the City Engineer. The cost of this work shall be the responsibility of the Contractor.

All precast concrete products shall be inspected at the location of manufacture. Approved precast concrete products will be stamped or have such identification noting the inspection has been conducted by the City of Columbus. Precast concrete products without proof of inspections shall not be approved for installation.

Unless indicated otherwise on the plan details, backfill within a 1:1 influence line of existing structures (houses, garages, etc.) or public infrastructure (pavement, curbs, sidewalks, bike paths, etc.) shall be compacted granular backfill according to Item 912 of the Standard Specifications or Flowable CDF, Type III according to Item 636.

Item 911 of the Standard Specifications shall be used elsewhere.

The Contractor shall submit a copy of the approved construction drawings and list of proposed precast concrete product manufacturers to the City of Columbus Construction Inspections Division before commencing construction.

Send the information to the following address:

Construction Inspection Division
City of Columbus
1800 East 17th Avenue
Columbus, Ohio 43219

Send a copy of the transmittal letter to the following address:

Division of Engineering
City of Dublin
5800 Shier Rings Road
Dublin, Ohio 43016

All trenches within public right-of-way shall be backfilled according to the approved construction drawings or securely plated during nonworking hours. Trenches outside these areas shall be backfilled or shall be protected by approved temporary fencing or barricades during nonworking hours. Clean up shall follow closely behind the trenching operation.

All trees within the construction area not specifically designated for removal shall be preserved, whether shown or not shown on the approved construction drawings. Trees to be preserved shall be protected with high visibility fencing placed a minimum 15 feet from the tree trunk. Trees 6-inches or greater at DBH (Diameter Breast Height) must be protected with fencing placed at the critical root zone, or 15 feet, whichever is greater. Trees not indicated on the approved construction drawings for removal may not be removed without prior approval of the Division of Engineering.

Conduit must be directionally bored across streets instead of open cut, unless specifically approved by the City Engineer. Use of pneumatic air ram devices is not permitted. Permits to construct in the right-of-way of existing streets must be obtained from the City of Dublin Division of Engineering before commencing construction. Should open cutting of existing pavement be permitted, Controlled Density Backfill (Type III) shall be used in place of compacted granular backfill, according to Item 636 of the Standard Specifications.

The Contractor shall be responsible for the condition of trenches within the right-of-way and public easements for a period of one year from the final acceptance of the work, and shall make any necessary repairs at no cost to the City.

Pavements shall be cut in neat, straight lines the full depth of the existing pavement, or as required by the City Engineer. Pavement replacement shall be conducted according to City of Columbus Standard Drawing 1441 Dr. A and applicable City of Dublin standard drawings. The replacement of driveways, handicapped ramps, sidewalks, bike paths, parking lot pavement, etc. shall be provided according to the approved construction drawings and City of Dublin standard construction drawings.

Tree trimming within the construction zone is to be completed by a certified Arborist. At the completion of the project, the Arborist is to return and trim any broken branches as needed.

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

All inlets shall be channelized.

Park areas shall be fine-graded and seeded with the following mixture:

Improved Kentucky Bluegrass: 40% of weight (2 varieties in equal parts)
Improved Perennial Rye: 60% of weight (2 varieties in equal parts)
Germination Rate: 85%
Application Rate: 7 lbs per 1000 sq ft or as directed by the Division of Parks and Recreation, City of Dublin, Ohio.

Traffic control and other regulatory signs shall be Type S with a square post anchor base installation and meet all requirements of ODOT TC-41.20 and applicable City of Dublin specifications.

Street signs shall meet all City of Dublin specifications with lettering colored in white displayed over a brown background. Sign tubing shall be brown in color and conform with the Type S, square post anchor base installation requirements of ODOT TC-41.20.

UTILITIES

The following utilities are known to be located within the limits of this project:

For water, sanitary sewers, storm sewer, street lighting, traffic signals:

City of Dublin
Division of Engineering
5800 Shier Rings Road
Dublin, OH 43016
Office: (614) 410-4600

For water,
City of Columbus
Division of Water
910 Dublin Road
Columbus, OH 43215
Office: (614) 645-7788

Columbia Gas of Ohio
Rob Caldwell
1600 Dublin Rd
Columbus, OH 43215
Office: (614) 481-1057
Cell:

AEP
Attn: Paul Paxton
850 Tech Center Drive
Gahanna, OH 43230
Phone: 614-883-6831

AT&T
Attn: Gary VanAlmsick
111 N. 4th Street
Columbus, OH 43215
Phone: (614) 223-7276
Fax: (614) 223-5579

AT&T Transmission Teleport
Attn: Anita Nuckols
8372 E. Broad St.
Reynoldsburg, OH 43068
Phone: (614) 868-2347
Cell: (614) 302-4908

Time Warner Communications
Attn: Ray Maurer
3760 Interchange Road
Columbus, OH 43204
Phone: (614) 481-5262
Fax: (614) 255-6428
Cell: (614) 348-2979

Time Warner Telecom
Attn: Mark Blackburn
250 W. Old Wilson Bridge Rd., Suite 130
Worthington, OH 43085
Phone: (614) 255-2148

XO Communication
Attn: Jeremy Johnson
10 W. Broad St., Suite 300
Columbus, OH 43215
Phone: (614) 416-1473
Fax: (614) 416-9269
Cell: (614) 512-7886

Fibertech Networks
Attn: James Highsmith
140 Allens Creek Road
Rochester, NY 14618
Phone: (585) 697-5145
Fax: (585) 242-9807
Cell: (585) 303-8554

Level 3 Communications
Attn: Jaramie Myers
226 N. 5th St., Suite 100
Columbus, OH 43215
Fax: (720) 567-1042
Cell: (614) 286-7393

DubLink
Attn: Brian Smith c/o Team Fishel
1366 Dublin Road
Columbus, OH 43215
Phone: (614) 921-8634
Fax: (614) 347-4351

The Contractor shall give notice of intent to construct to Ohio Utilities Protection Service (telephone number 800-362-2764), Producer's Underground Protection Service (telephone number 614-587-0486), and to owners of underground utilities that are not members of a registered underground protection service. Notice shall be given at least 2 working days before start of construction.

The identity and locations of existing underground utilities in the construction area have been shown on the approved construction drawings as accurately as provided by the owner of the underground utility. The City of Dublin and the City Engineer assumes no responsibility for the accuracy or depths of underground facilities shown on the approved construction drawings. If damage is caused, the Contractor shall be responsible for repair of the same and for any resulting contingent damage.

Location, support, protection and restoration of all existing utilities and appurtenances, whether shown or not shown on the approved construction drawings, shall be the responsibility of the Contractor.

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

Public street lighting may be in the vicinity of this project. Contact the City of Dublin, Division of Engineering at 410-4637, two days prior to beginning work.

TRAFFIC CONTROL

Traffic control shall be furnished, erected, maintained, and removed by the Contractor according to Ohio Manual of Uniform Traffic Control Devices (OMUTCD), current edition.

All traffic lanes of public roadways shall be fully open to traffic from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM unless authorized differently by the City Engineer. At all other hours the Contractor shall maintain minimum one-lane two-way traffic. Uniformed, off-duty police officers shall replace flagmen designated by the OMUTCD, and shall be present whenever one-lane, two-way traffic control is in effect. Police cruisers may be required as directed by the City Engineer.

If the City Engineer determines that the Contractor is not providing proper provisions for traffic control, the City Engineer shall assign uniformed, off-duty police officers to the project at no cost to the City.

Steady-burning, Type "C" lights shall be required on all barricades, drums, and similar traffic control devices in use at night.

Access from public roadways to all adjoining properties for existing residents or businesses shall be maintained throughout the duration of the project for mail, public water and sanitary sewer service, and emergency vehicles. The Contractor shall provide a traffic control plan detailing the proposed maintenance of traffic procedures. The traffic control plan must incorporate any traffic control details contained herein. The traffic control plan proposed by the Contractor must be approved by the City Engineer prior to construction.

EROSION AND SEDIMENT CONTROL

The Owner is responsible for submitting a Notice of Intent (NOI) to be reviewed and approved by the Ohio EPA. The NOI must be submitted to OEPA 45 days prior to the start of construction and may entitle coverage under the Ohio EPA General Permit for Stormwater Discharges associated with construction activity. A project location map must be submitted with the NOI. A sediment and erosion control plan must be submitted to the City Engineer for approval if a sediment and erosion control plan has not already been included with the approved construction drawings. This plan must be made available at the project site at all times. The design of erosion control systems shall follow the requirements of Ohio EPA, Item 207 of City of Columbus Construction and Material Specifications, and the City Engineer. An individual NPDES Stormwater Discharge Permit may be required. The Contractor shall be considered the permittee.

The Contractor shall provide sediment control at all points where storm water runoff leaves the project, including waterways, overland sheet flow, and storm sewers.

Accepted methods of providing erosion/sediment control include but are not limited to: sediment basins, silt filter fence, aggregate check dams, and temporary ground cover. Hay or straw bales are not permitted.

The Contractor shall provide adequate drainage of the work area at all times consistent with erosion control practices.

Disturbed areas that will remain unworked for 30 days or more shall be seeded or protected within seven calendar days of the disturbance. Other sediment controls that are installed shall be maintained until vegetative growth has been established. The Contractor shall be responsible for the removal of all temporary sediment devices at the conclusion of construction but not before growth of permanent ground cover.

CALCULATED EAM
CHECKED MRB

GENERAL NOTES

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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CITY OF DUBLIN STANDARD GENERAL NOTES CONTINUED

BLASTING
The Contractor must obtain a blasting permit from Washington Township Fire Department prior to blasting for rock excavation. The Contractor shall submit blasting reports upon completion of blasting to the City Engineer, the Owner, and the Owner's engineer. Top of rock elevations shall be shown on "as-built" construction drawings. All blasting shall be performed in accordance with ODOT Item 208.

WATER LINE
For City of Dublin Water Main Notes, SEE SHEET 47.

STORM SEWER
All storm water detention and retention areas and major flood routing swales shall be constructed to finish grade and hydro-seeded and hydro-mulched according to Items 203 and 659 of the Standard Specifications.

Where private storm sewers connect to public storm sewers, the last run of private storm sewer connecting to the public storm sewer shall be Reinforced Concrete Pipe conforming to ASTM Designation C76, Wall B, Class IV for pipe diameters 12 inches to 15 inches, Class III for 18 inches to 24 inch pipes, and 27 inches and larger pipe shall be Class II, unless otherwise shown on the approved construction drawings. Inspection is required by the City of Dublin's Division of Engineering.

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

All storm sewers shall be Reinforced Concrete Pipe conforming to ASTM Designation C76, Wall B, Class IV for pipe diameters 12 inches to 15 inches, Class III for 18 inches to 24 inch pipes, and 27 inches and larger pipe shall be Class II, unless otherwise shown on the approved construction drawings.

Headwalls and endwalls shall be required at all storm sewer inlets or outlets to and from stormwater management facilities. Natural stone and/or brick approved by the City Engineer shall be provided on all visible headwalls and/or endwalls surfaces.

Storm inlets or catch basins shall be channelized and have bicycle safe grates. Manhole lids shall include City of Dublin logo and all curb inlet and catch basin grates shall indluce engraved lettering: "DUMP NO WASTE; DRAINS TO RIVER."

Storm sewer outlets greater than 18 inches in diameter accessible from stormwater management facilities or watercourses shall be provided with safety grates, as approved by the City Engineer.

USE OF FIRE HYDRANTS
The Contractor shall make proper arrangements with the Dublin Service Department and the Columbus Division of Water for the use of fire hydrants when used for work performed under this contract and provide the city of Dublin a copy of the Hydrant Usage Permit obtained from the City of Columbus. The Contractor shall also send a copies of permits obtained from Dublin and Columbus to the Washington and/or Perry Township Fire Department. Permits shall be kept at the construction site at all times.

Before the final estimate is paid, the Contractor shall submit a letter from the City of Columbus Division of Water to the City Engineer stating that the Contractor has returned the Siamese Valve to the City of Columbus and has paid all costs arising from the use of the fire hydrants.

PROJECT-SPECIFIC GENERAL NOTES

ELEVATION DATUM
Elevations are based on North American Vertical Datum of 1988 (NAVD 88).

COORDINATION WITH UTILITIES
The Contractor is advised that some utility facilities may not be clear of the construction area during the time of construction. These utility facilities may remain in place or be relocated within the construction limits. The Contractor shall not wait on the relocations to be completed, but instead shall cooperate with the utilities including their contractors, and work around the existing facilities. Sections 105.07 and 107.16 of the Ohio Department of Transportation Construction and Material Specifications and 105.08 of CMSC apply and will require that the Contractor cooperate with all utilities located within the limits of this construction project and take responsibility for the protection of the utility property and services. No separate payment shall be made for the Contractor to coordinate with Utility Companies.

The Contractor shall exercise caution when working in the proximity of existing and/or relocated utility facilities. Costs to expose conduit shall be included in the items of work affected. The Contractor is reminded to keep their OUPS ticket updated according to industry practices.

ABANDONED UTILITIES:
The Contractor shall be responsible for the removal and disposal of any abandoned utility facility that may conflict with any facility or construction activity proposed in these plans, including the installation of proposed conduit, underdrain, storm sewer, structure, waterline, sanitary sewer line, subgrade stabilization, foundations, etc. The Contractor is advised to verify that a utility facility has been abandoned before proceeding with removing it. If it is determined that the utility facility is active and in conflict, then the Contractor shall notify the Engineer prior to proceeding with any affected proposed work.

The cost of the operations necessary to remove and dispose of conflicting abandoned utilities shall be included with the price of the affected item for payment. No separate payment shall be made.

ROUNDING
The rounding at slope breakpoints shown on the typical sections applies to all cross-sections even though otherwise shown.

WORK LIMITS
The work limits shown on these plans are for physical construction only. Provide the installation and operation of all work zone traffic control and work zone traffic control devices required by these plans whether inside or outside these work limits.

SANITARY FACILITIES
The Contractor shall furnish and maintain sanitary convenience facilities for the workmen and inspectors for the duration of the work. Costs for these facilities shall be included in the unit price bid for the various roadway items.

CONTINGENCY QUANTITIES
The Contractor shall not order materials or perform work shown, labeled, or listed as 'contingency' or referenced by plan note to be used 'as directed by the Engineer,' unless authorized by the Engineer, or a representative of the City of Columbus, Division of Design and Construction.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES
Where plans provide for a proposed 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 both as to 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 or results in a change in the plan conduit slope, the 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 the proposed conduit will intersect an existing sewer or underground utility if constructed as shown on the plan, the Engineer shall be notified before starting construction of any portion of the proposed conduit which would be affected by the interference with an existing facility.

Payment for all the operations described above shall be included in the contract price for the pertinent 603 conduit Item.

PLACING FEATHERED AREAS
Items, such as wearing course removal or asphalt cement coating, that are necessary to construction butt joint or taper edge type feathered areas per ODOT Standard Construction Drawing BP-3.1 are to be considered incidental to construction and are to be included with associated pavement items for payment.

REMOVAL AND REPLACEMENT OF SOFT OR UNSUITABLE MATERIAL
Areas requiring over excavation or undercut, as determined by the Engineer, shall be excavated in accordance with CMSC Item 204 Excavation of Subgrade. The over excavated or undercut areas are to be filled as directed by the Engineer in a controlled manner in accordance with CMSC 204.07 and as follows.

Prior to placement of any new fill or pavement construction, areas of over excavation or undercut are to be replaced with fill comprised of Item 204 Granular Material, Type B; or with properly compacted new fill meeting the requirements of Item 204 Embankment; or with excavations scarified to permit drying and recompacted to the appropriate design unit weight and sufficient moisture content to meet Item 203 compaction requirements, at the discretion of the Engineer.

The Contractor may propose an alternate means of stabilizing the subgrade provided that the recommendation is made by a qualified geotechnical professional and that the material used in the over excavated area can be tested to verify compaction and moisture content.

The following estimated contingency quantities are carried to the General Summary for use as directed by the Engineer for removal and replacement of soft or unsuitable materials as described above:

Item 204 – Excavation of Subgrade	600 Cu. Yd.
Item 204 – Granular Material, Type B	600 Cu. Yd.
Item 204 – Geotextile Fabric, Type D	1,100 Sq. Yd.

SEEDING & MULCHING
The following quantities are provided to promote growth and care of permanent seeded areas:

Item 653, Topsoil, Furnished and Placed	1,320 Cu. Yd.
Item 659, Seeding and Mulching, As Per Plan	11,860 Sq. Yd.
Item 659, Repair Seeding and Mulching, As Per Plan	600 Sq. Yd
Item 659, Commercial Fertilizer	1.07 Ton
Item 659, Water	65 M. Gal.

Seeding and Mulching shall be applied to all areas of exposed soil between the right-of-way lines, and within the construction limits for areas outside the right-of-way lines covered by work agreement or temporary easement. Quantity calculations are based on these limits.

Payment under this Item shall be limited to final permanent installations. Temporary installations shall be in accordance with Dublin 107.12. However, the same material and size limitations as for permanent installations shall apply.

ITEM 203 – EXCAVATION, AS PER PLAN
ITEM 203 – EMBANKMENT, AS PER PLAN
This work shall conform to CMSC Item 203 and the requirements herein. The excavation of asphalt pavement, asphalt curb, brick materials, topsoil or unsuitable materials not otherwise itemized on this project are included within Item 203, Excavation, As Per Plan quantities for payment. Excess materials meeting the requirements of CMSC Item 203 Embankment, as verified by the City shall be stockpiled at the location shown on Sheet 24 for future use by the City. Excess materials not meeting requirements of Item 203 Embankment, including topsoil and debris, shall be removed from the site and disposed of by the Contractor unless otherwise directed by the City. The Contractor may temporarily stockpile topsoil meeting the requirements of Item 653 on site for work of this contract at the Contractor's expense.

The Contractor shall work with the City as necessary to determine the quality of material being stockpiled prior to delivering to the stockpile area identified on Sheet 24. For bidding purposes, the Contractor shall assume that the Item 203 – Embankment stockpile will not exceed 10,000 cubic yards. The Contractor shall include as part of their base bid, removing any excavated material in excess of this quantity offsite. If the Contractor utilizes the stockpile area for material not in compliance with Item 203, the Contractor will be required to remove the unapproved material from the stockpile area at their own expense.

All soil stockpiles, including trench excavation stockpiles, shall be protected from erosion by perimeter control devices such as straw bale dikes or silt fences. These perimeter control devices shall be maintained by the Contractor throughout the life of the project. Excavated materials shall not be stored on existing public roadway pavements. This includes excess or unusable excavated soil.

No extra compensation will be paid for any excavation required in rock or shale. The Contractor shall examine the soils report prior to bidding to determine if any rock or shale excavation will be required and adjust the unit price bid for this item accordingly.

CALCULATED EAM
CHECKED MRB

GENERAL NOTES

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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PROJECT–SPECIFIC GENERAL NOTES (CONTINUED)

ITEM 204 – PROOF ROLLING

The following quantity is provided in the general summary to address locations requiring proof rolling.

Item 204 – Proof Rolling 4 Hour.

ITEM 407 – NTSS –1HM TRACKLESS TACK COAT

Description: This work consists of preparing and treating a paved surface with a specialized anionic trackless asphalt emulsion. Meet all requirements of Item 407 Tack Coat Specification in the CMSC except as noted below.

Material: Conform to the following typical physical properties:

PARAMETER	TEST METHOD	MIN.	MAX.
Saybolt Furol Viscosity, SFS @ 25°C	ASTM D88	15	100
Storage Stability, 24 HRS, %	ASTM D244	--	1
Storage Stability, 5 Days, %	ASTM D244	--	5
Residue by Distillation, %	ASTM D244	50	--
Oil Distillation, %	ASTM D244	--	1
Sieve Test, %	ASTM D244	--	0.3
TEST ON RESIDUE			
Penetration, @ 25°C	ASTM D5	--	20
Softening Point Range Deg.C	ASTM D36	65	--
Solubility, %	ASTM D2042	97.5	--
Original Binder DSR@82°C G*/SIN δ, 10 RAD/SEC	AASHTO T111	1	--

Note: Product should not contain filler such as clay, etc.

Supply certified test data to the Engineer showing the material supplied was tested for and meets the above properties.

Equipment: All requirements of 407.03 shall apply. See Manufacturer's Representative for correct distributor settings. Thoroughly clean all equipment if cationic emulsion was previously used.

Weather Limitations: Do not apply the asphalt material if the surface temperature is below the minimum placement temperature for the pavement course to be placed.

Preparation of Surface: All requirements of 407.04 shall apply.

Application of Asphalt Material: Uniformly apply the asphalt material with a distributor. If product is stored for an extended period of time prior to application, agitate or gently circulate the material.

All nozzles and spray patterns shall be identical to one another along the distributor spray bar. The angle of the nozzle should be placed at a 15 to 30 degree angle to the spray bar axis to maximize overlap or as recommended by the Nozzle Manufacturer. Contact the Manufacturer's representative for required spray nozzle size, and distributor and nozzle settings.

Apply at a rate of 0.04 to 0.08 gallons per square yard. Recommended application temperature is 160°f to 180°f. Do not exceed 180°f.

For irregular areas such as driveways and intersections, apply the asphalt material using a method the Engineer approves. Apply the tack coat in a manner that offers the least inconvenience to traffic and that allows one–way traffic without pickup or tracking. Only apply the tack coat to areas that will be covered by a pavement course during the same day.

The Engineer and Manufacturer's Representative will approve the quantity, rate of application, temperature, distributor settings and areas to be treated before application of tack coat. The Engineer will determine the actual application in gallons per square yard by a check on the project.

The application is considered satisfactory when the material is applied uniformly with no visible evidence of streaking or ridging.

Method of Measurement: As Per 407.08.

Basis of Payment: As Per 407.09. The City will pay for accepted quantities at the contract price as follows:

Item	Unit	Description
407	Gallon	NTSS – 1HM Trackless Tack Coat
407	Gallon	NTSS – 1HM Trackless Tack Coat for Intermediate Course

ITEM 659 – SEEDING AND MULCHING, AS PER PLAN
ITEM 659 – REPAIR 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 AOSA "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 90 percent pure seed, and not more than 0.5 percent weed seed.

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 grass seed at the rate indicated below with a spreader or seeding machine. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.

Turfgrass mixture: 7–9 lb. per 1,000 s.f.

Hydro–seeding. Not permitted.

Hydro–mulching. Apply slurry at a rate so that mulch component is deposited at not less than 1,500 lb. / acre dry weight.

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 2–3 inches.

ITEM 670 – DITCH EROSION PROTECTION MAT, AS PER PLAN

Ditch erosion protection shall be Aspen Excelsior (Green), Type G per 712.11 and DM–4.2.

The following quantities for Ditch Erosion Protection Mat are carried to the general summary:

Ditch Erosion Protection Mat, As Per Plan 2,350 Sq. Yd.

LEGEND

ABBREVIATIONS

EXISTING

WS ..... WATER SERVICE
SS ..... SANITARY SERVICE
GS ..... GAS SERVICE
RD ..... ROOF DRAIN
OHE ..... OVERHEAD ELECTRIC
OHT ..... OVERHEAD TELEPHONE
TEL ..... UNDERGROUND TELEPHONE
CATV ..... CABLE TELEVISION

PROPOSED

(DND) ..... DO NOT DISTURB
(TBA) ..... TO BE ABANDONED
(TBR) ..... TO BE REMOVED
(TBRL) ..... TO BE RELOCATED BY THIS PROJECT
(TBRO) ..... TO BE RELOCATED (BY OTHERS)
(APP) ..... AS PER PLAN
(ATG) ..... ADJUST TO GRADE
(RTG) ..... RECONSTRUCT TO GRADE

EXISTING CONDITIONS

CENTERLINE SURVEY
CENTERLINE EXIST. DRIVE
EDGE OF PAVEMENT
CURB
SHOULDER
DRIVEWAY
PARKING LOT
CONC. WALK
FENCE
GUARDRAIL
RIGHT OF WAY
PROPERTY LINE
PROPERTY LINE EXTENDED
LOT LINE (SAME OWNER BOTH SIDES)
RAILROAD RIGHT OF WAY
STORM
SANITARY
WATER
GAS
TELEPHONE (UNDERGROUND)
ELECTRIC
ELECTRIC (UNDERGROUND)
DITCH
CHAIN LINK/WIRE WOVEN FENCE
WOOD FENCE
CATV
CONC. WALL
ROCK
TREELINE
TREES
BUSHES
HEDGE/SHRUB
STUMP
CONC. PAD
WOOD POST
POST/BOLLARD
MAILBOX
FLAGPOLE
PARKING BLOCK
BUILDING

EXISTING UTILITY SYMBOLS

STM. MH
STM. MH (OPEN GRATE)
CURB & GUTTER INLET
CURB INLET
SAN. MH
CATCH BASIN
WATER VALVE
FIRE HYDRANT
GAS METER
GAS VALVE
LIGHT POLE
TELEPHONE POLE
TELEPHONE LIGHT POLE
TELEPHONE ELECTRIC LIGHT POLE
TELEPHONE ELECTRIC POLE
ELECTRIC POLE
LIGHT POLE
GUY ANCHOR
TEL. BOOTH
ELEC. PULLBOX
TEL. PEDESTAL
TEL. MH
LIGHTING CONTROLLER
SIGNAL POLE MOUNT
SIGNAL CONTROLLER
PEDESTRIAN PUSH BUTTON
SIGNS

EXISTING SURVEY SYMBOLS

I.P.F. IRON PIN FND./METAL BAR FND.
P.K.F. PK NAIL FND.
RIGHT–OF–WAY MON. FND.
I.P.F. IRON ROD FND./RR SPIKE FND.
BENCHMARK
I.P.S. IRON PIN SET/MAG NAIL SET/PK NAIL SET/RR SPIKE SET/TRAVERSE DRILL HOLE

PROPOSED LAYOUT

CENTERLINE CONSTRUCTION
CENTERLINE PROP. DRIVE
EDGE OF PAVEMENT
BACK OF CURB
FACE OF CURB
CONC. WALK/ASPH. BIKEPATH
RIGHT–OF–WAY
GUARDRAIL
CONSTRUCTION LIMITS
PROPERTY LINE
TEMPORARY EASEMENT
UTILITY EASEMENT
SLOPE EASEMENT
STORM EASEMENT
STORM
DUBLINK
AEP DUCT BANK
SANITARY
WATER MAIN
ELECTRICAL DUCT BANK
CENTERLINE OF DITCH
CHAIN LINK / WIRE WOVEN FENCE
WOOD FENCE

PROPOSED UTILITY SYMBOLS

STM. MH
CURB & GUTTER INLET
CURB INLET
SAN. MH
CATCH BASIN
WATER VALVE
FIRE HYDRANT
LIGHT POLE
TELEPHONE POLE
TELEPHONE LIGHT POLE
TELEPHONE ELECTRIC LIGHT POLE
TELEPHONE ELECTRIC POLE
ELECTRIC POLE
LIGHT POLE
GUY ANCHOR
ELEC. PULLBOX
TEL. PEDESTAL
TEL. VAULT
LIGHTING CONTROLLER
SIGNAL CONTROLLER
SIGNAL POLE MOUNT
PEDESTRIAN PUSH BUTTON
SIGNS

CALCULATED EAM
CHECKED MRB

GENERAL NOTES

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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ITEM 614 – MAINTAINING TRAFFIC, AS PER PLAN

GENERAL
All Traffic Control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the "Ohio Manual of Uniform Traffic Control Devices" (current edition), copies of which are available from the Ohio Department Of Transportation, office of Traffic Engineering, 1980 West Broad Street, Columbus, Ohio 43223.

The roadway shall not be opened to traffic until permanent traffic controls are in place, or until temporary traffic controls, approved by the engineer, are installed. the Contractor assumes all liability for the premature removal of temporary traffic controls.

The Contractor shall be responsible for the reinstallation and/or replacement of all permanent traffic control devices damaged or removed during the construction. Permanent traffic control that is no longer in conflict with temporary traffic control shall be replaced immediately. The Contractor shall assume all liability for missing, damaged and improperly placed traffic control devices.

The Contractor shall provide a 24 hour contact who will be responsible for maintenance of traffic for the duration of the project.

Construction operations shall not begin until all temporary traffic control devices are in place and approved by the Engineer and the City.

Maintenance of all traffic control devices including drums, signs, barricades, sign boards, detour signage, etc., shall be the Contractor's responsibility.

All trenches shall be backfilled or securely plated during all nighttime and non–working hours.

Drop off within the work zone shall conform to the requirements set forth on ODOT standard construction drawing mt–101.90

COTA
Prior to construction the Contractor shall contact the Senior Service Planner of the Central Ohio Transit Authority (COTA) at phone (614) 308–4373 or fax (614) 275–5933 to coordinate proper bus movements through or around the jobsite during the project. This will include, but not be limited to, the temporary relocation or removal of COTA signs and/or bus stop locations.

CONSTRUCTION INITIATION
The Contractor will notify the City of Dublin 14 days prior to the start of construction activities. the Contractor will immediately inform the City of Dublin of any and all delays and/or changes regarding the construction project. The City Engineer will provide clarification for any questions about the notification requirement.

The Contractor shall submit a closure schedule to the City of Dublin for approval prior to initiating any closure.

LOCAL ACCESS
Ingress and egress shall be maintained to all residential and commercial properties. Driveway closure may be necessary to enable work on or in front of a drive. The Contractor will be responsible for notifying owners, residents, or business operators in writing at least 48 hours but not more than 72 hours prior to closure. The Engineer shall be given a list of the persons that were given notices with the date of notice included. Closure is permitted only during work hours and access must be returned at the end of each working day. Properties with multiple drives may have one drive closed at a time, while work is performed in the area of the closed drive.

Individual drive closures shall be kept to the minimum time needed for construction activities. Every effort must be made to accommodate the owner's need for access.

PEDESTRIAN ACCESS
The Contractor shall be responsible for the protection and safe movement of pedestrians through, around, and away from the construction site.

The safety of pedestrian traffic shall be considered at all times in the provision of traffic control devices required by these plans and notes. It shall be the Contractor's responsibility to provide lights, signs, barricades, and other warnings to physically separate the pedestrian from hazards incidental to the construction operations such as open excavations, etc. at all time, the pedestrian mot shall be subject to the approval of the Engineer.

COVERING SIGNS
The Contractor shall cover all existing signs that conflict with maintenance of traffic signs. Covering of signs shall be in accordance with 614.05. costs for covering signs shall be included in item 614 – Maintaining Traffic, As Per Plan.

EXISTING TRAFFIC SIGN MAINTENANCE
Special care shall be taken to maintain existing street name signs and stop signs. If necessary, the Contractor shall relocate these signs out of the way of construction, but in conformance with OMUTCD.

SIGNS, BARRICADES, AND VERTICAL PANELS
All construction signs, barricades, vertical panels, and drums shall conform to OMUTCD and the latest revision of the ODOT Construction and Material Specifications.

All construction signage shall be installed and covered before construction begins. After construction sign installation, the Contractor shall notify the Engineer three working days before work begins and request an inspection of all signage.

Faces of construction signs and reflective sheeting on barricades shall be Type "H" (VIP). All orange construction signs shall be fluorescent orange. All sheeting will be tested for reflectivity per ODOT 730.192. Vertical panels and drum bands shall be reflectorized with Type "G" (high intensity) sheeting complying with the requirements of 730.19. All signs and barricades, vertical panels, and drums will be like new and in good condition in conformance with "Quality Guidelines for Temporary Traffic Control Devices and Features" published by ATSSA.

Maintenance of all Contractor supplied signs, barricades, vertical panels, and drums is the Contractor's responsibility. If the Contractor fails to correct deficiencies within four hours of notification, the City will correct or hire someone to correct the deficiencies. The Contractor will then be back charged per ODOT specification 614.04. In the case that back charging the Contractor is not applicable, the City will rescind and withhold all permits issued to the Contractor to work within City Right–Of–Way until the issue is settled.

These provisions shall not in any way relieve the Contractor of any of his legal responsibilities or liabilities for the safety of the public.

All barricades at closures shall have yellow Type "C" steady burn lights. All barrels in tapers shall have yellow Type "C" steady burn lights.

All advance signing shall be equipped with Type "A" flashing lights and (2) orange flags (24"x24"). Lights are not required on signs in place during daylight hours.

Cones are not approved for use at night.

Drums shall be placed as follows: 25' C/C on tangents, 10' C/C on tapers, and 8' C/C in radii.

PAYMENT
Payment for all materials and labor related to maintaining traffic shall be incidental to Item 614, Maintaining Traffic, As Per Plan.

MAINTENANCE OF TRAFFIC ESTIMATE OF QUANTITIES

ITEM NO.	QUANTITY	UNIT	ITEM DESCRIPTION
614	1	LUMP	MAINTAINING TRAFFIC, AS PER PLAN

TOTALS CARRIED TO GENERAL SUMMARY

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC NOTES

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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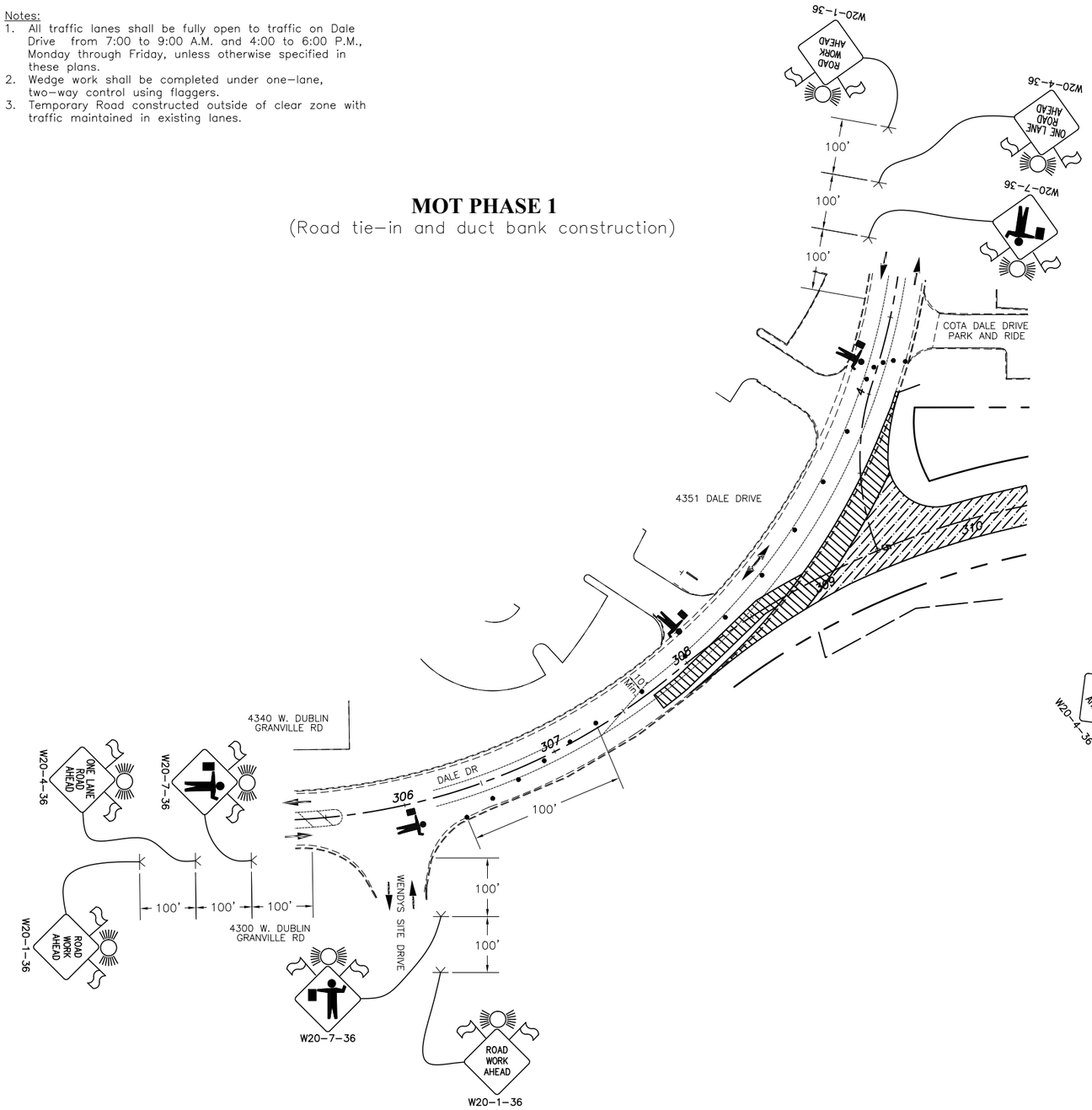
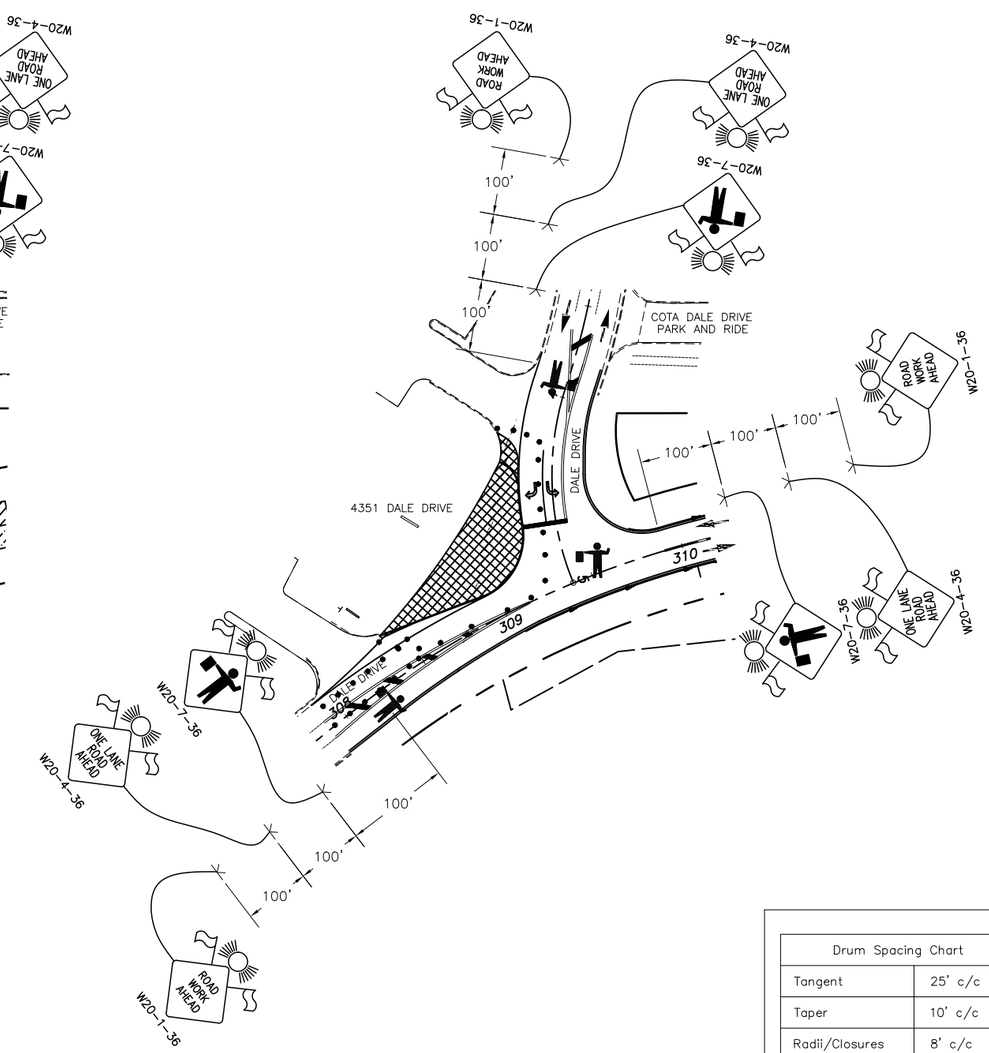
Notes:
1. All traffic lanes shall be fully open to traffic on Dale Drive from 7:00 to 9:00 A.M. and 4:00 to 6:00 P.M., Monday through Friday, unless otherwise specified in these plans.
2. Wedge work shall be completed under one-lane, two-way control using flaggers.
3. Temporary Road constructed outside of clear zone with traffic maintained in existing lanes.

MOT PHASE 1
(Road tie-in and duct bank construction)



MOT PHASE 1A
(Pavement Removal)



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

LEGEND

= Flagger
= Direction Of Travel
= Temporary Sign Support
= Type III Barricade
= 42" Channelizer Cone
= Orange Drum
= Work Zone
= Non-Impacted Work Zone (See Note 3)
= Pavement Removed

Metric: 1 inch = 40 feet

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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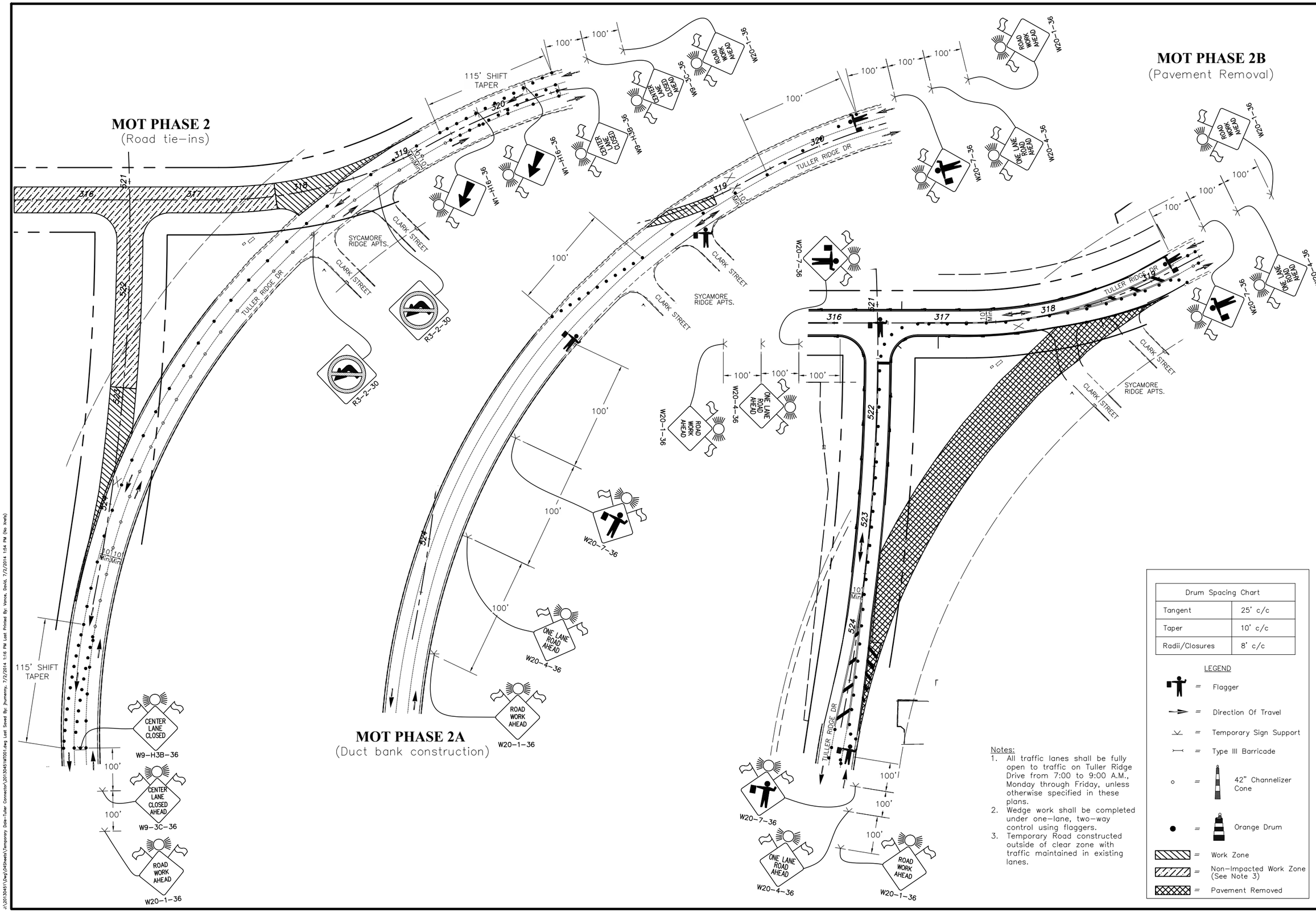

Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

LEGEND

- = Flagger
- = Direction Of Travel
- = Temporary Sign Support
- = Type III Barricade
- = 42" Channelizer Cone
- = Orange Drum
- = Work Zone
- = Non-Impacted Work Zone (See Note 3)
- = Pavement Removed

Notes:

1. All traffic lanes shall be fully open to traffic on Tuller Ridge Drive from 7:00 to 9:00 A.M., Monday through Friday, unless otherwise specified in these plans.
2. Wedge work shall be completed under one-lane, two-way control using flaggers.
3. Temporary Road constructed outside of clear zone with traffic maintained in existing lanes.

Horz. 1 inch = 40 feet

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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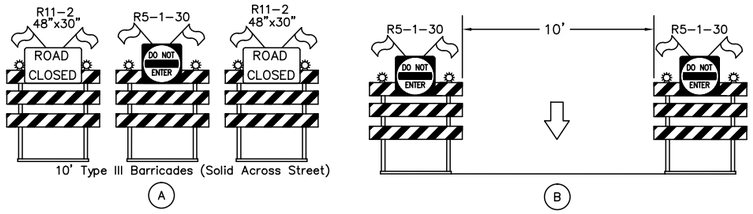
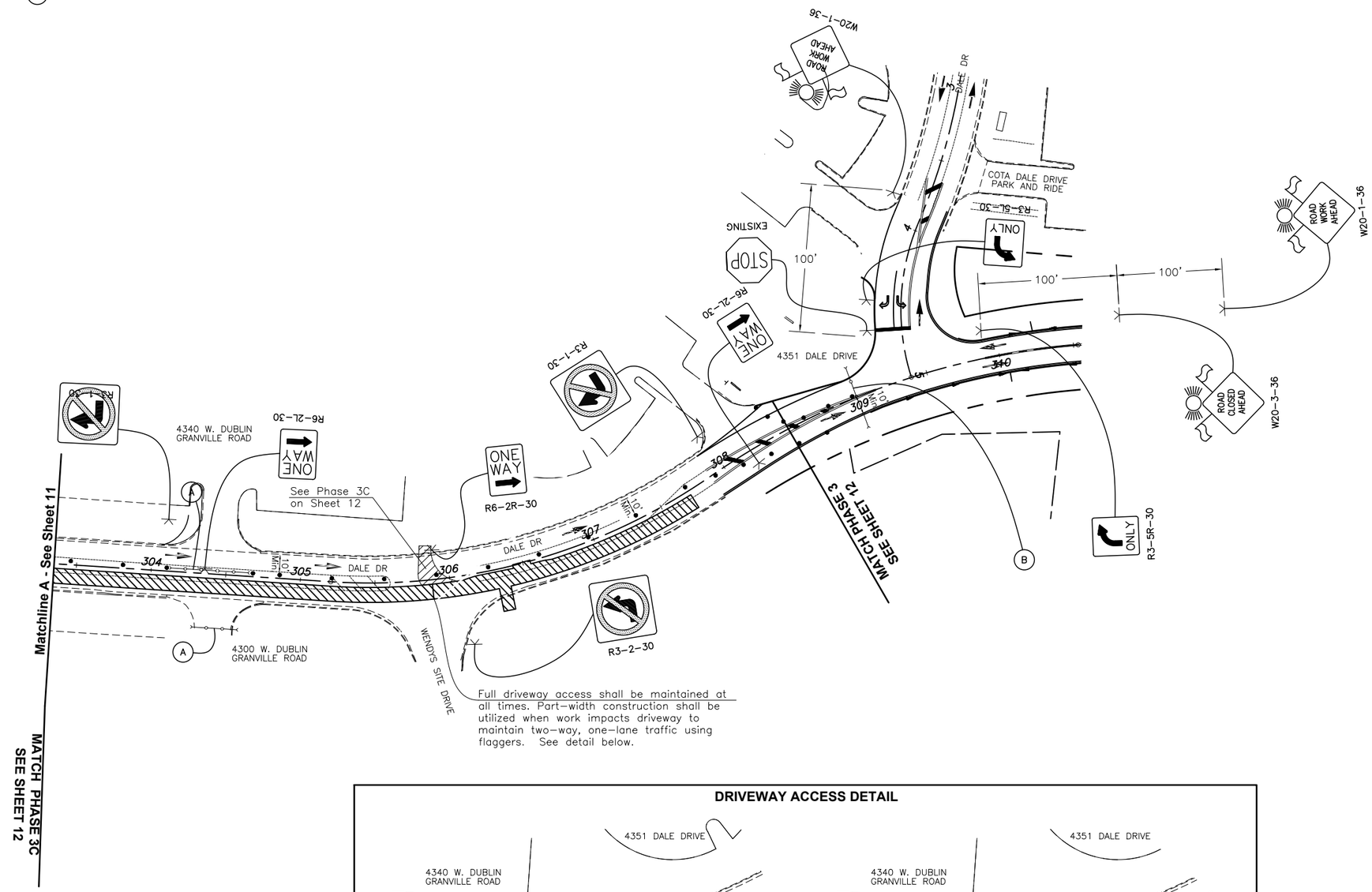


MOT PHASE 3

(Duct bank construction)

Notes:
1. Phase 3 shall be coordinated with COTA.
2. Phase 3 work shall not begin until Phase 1 and 2 have been completed and the temporary roadway is open to traffic.



Full driveway access shall be maintained at all times. Part-width construction shall be utilized when work impacts driveway to maintain two-way, one-lane traffic using flaggers. See detail below.

Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

= Temporary Sign Support

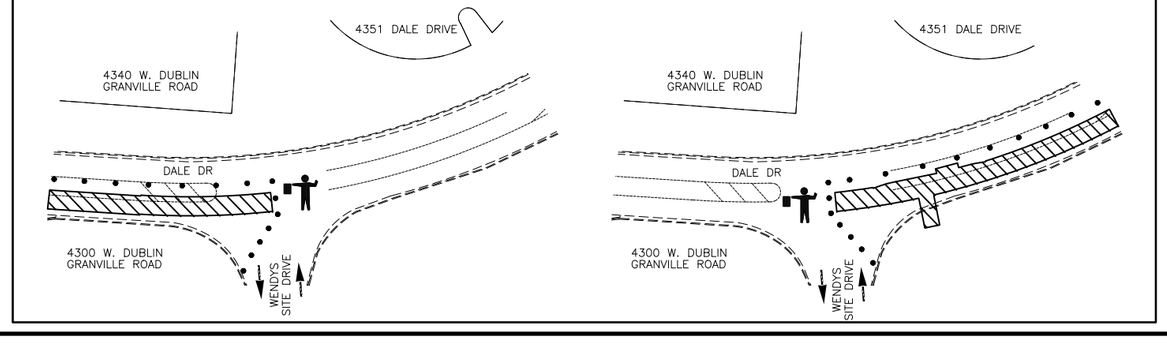
= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone

DRIVEWAY ACCESS DETAIL



CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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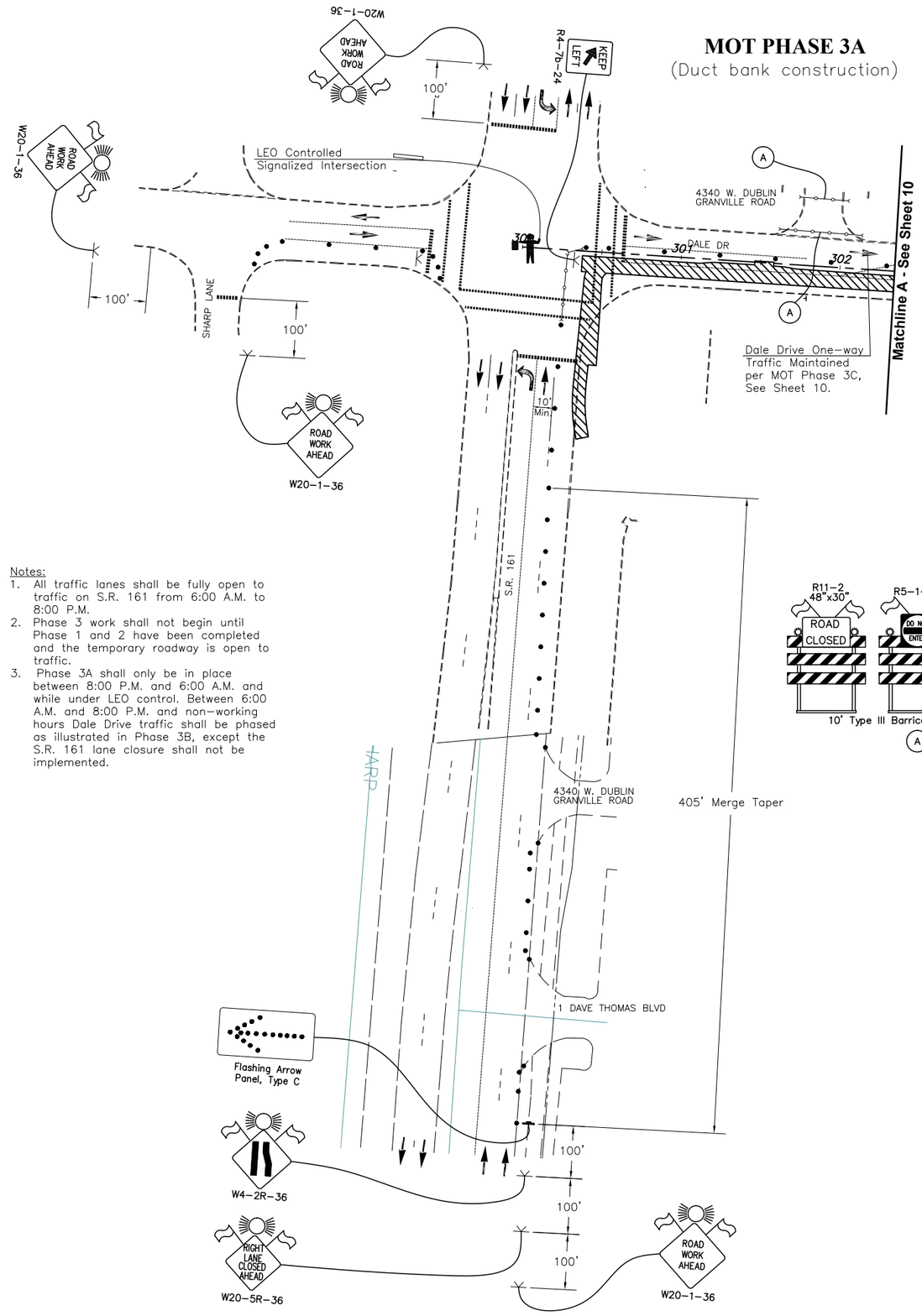
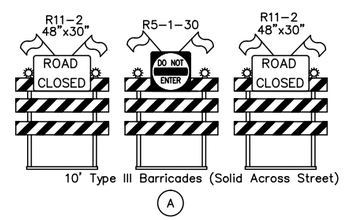
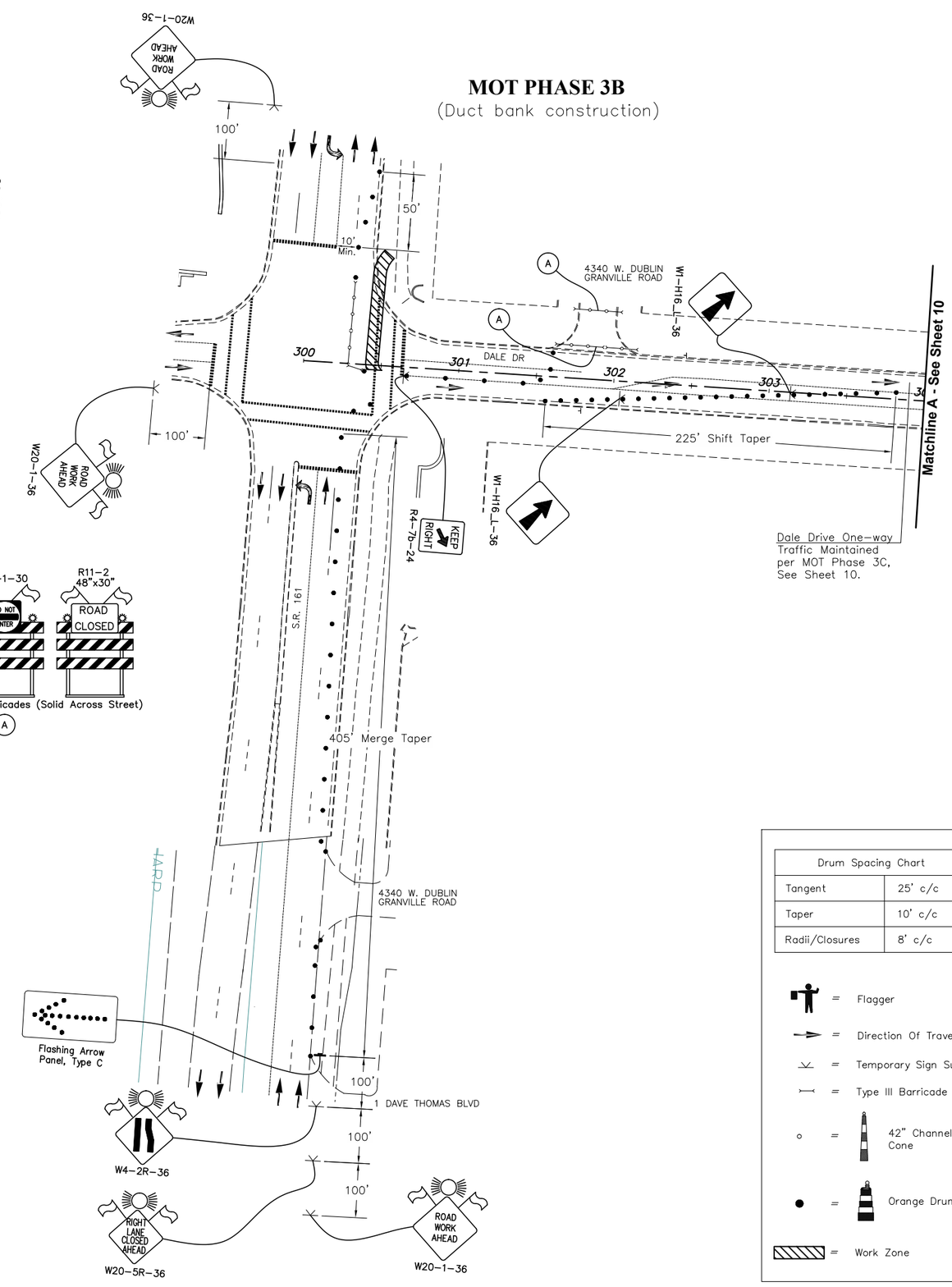
MOT PHASE 3A
(Duct bank construction)



Notes:
1. All traffic lanes shall be fully open to traffic on S.R. 161 from 6:00 A.M. to 8:00 P.M.
2. Phase 3 work shall not begin until Phase 1 and 2 have been completed and the temporary roadway is open to traffic.
3. Phase 3A shall only be in place between 8:00 P.M. and 6:00 A.M. and while under LEO control. Between 6:00 A.M. and 8:00 P.M. and non-working hours Dale Drive traffic shall be phased as illustrated in Phase 3B, except the S.R. 161 lane closure shall not be implemented.



MOT PHASE 3B
(Duct bank construction)



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger
= Direction Of Travel
= Temporary Sign Support
= Type III Barricade
= 42" Channelizer Cone
= Orange Drum
= Work Zone

Horz. 1 inch = 40 feet

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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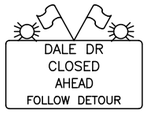


60"x48" BLK/ORG

1

48"x12" BLK/ORG

M4-9L-30

2

48"x12" BLK/ORG

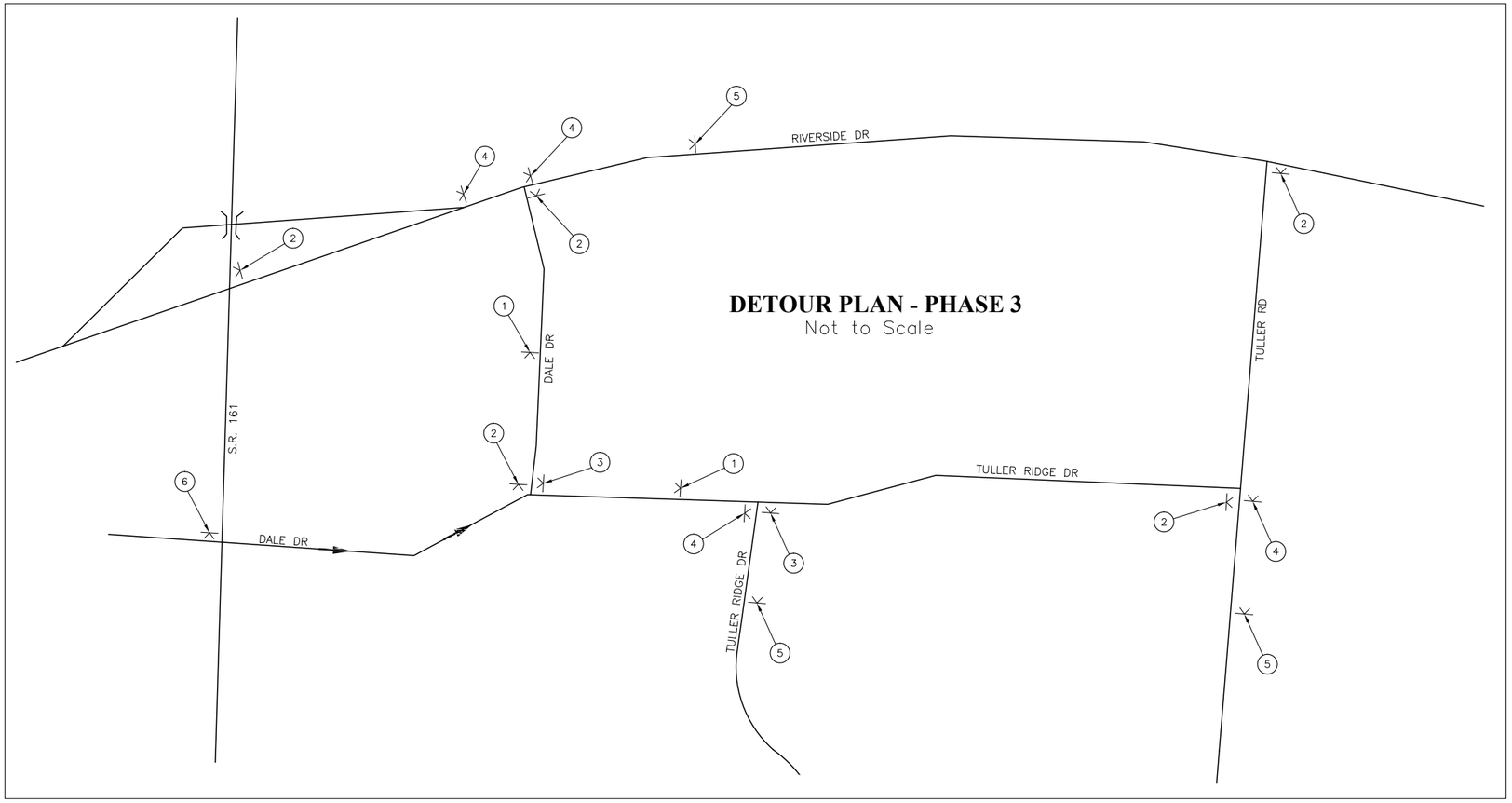
M4-9R-30

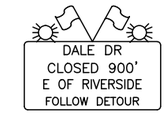
3

48"x12" BLK/ORG

M4-9C-30

4





60"x48" BLK/ORG

5

M4-8a-24

6

Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

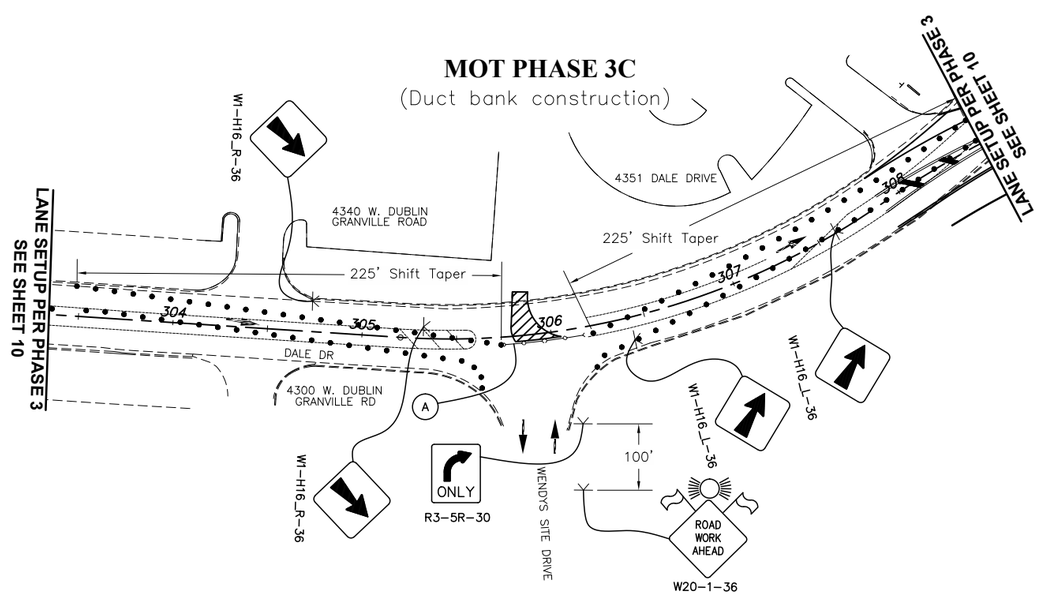
= Temporary Sign Support

= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone



CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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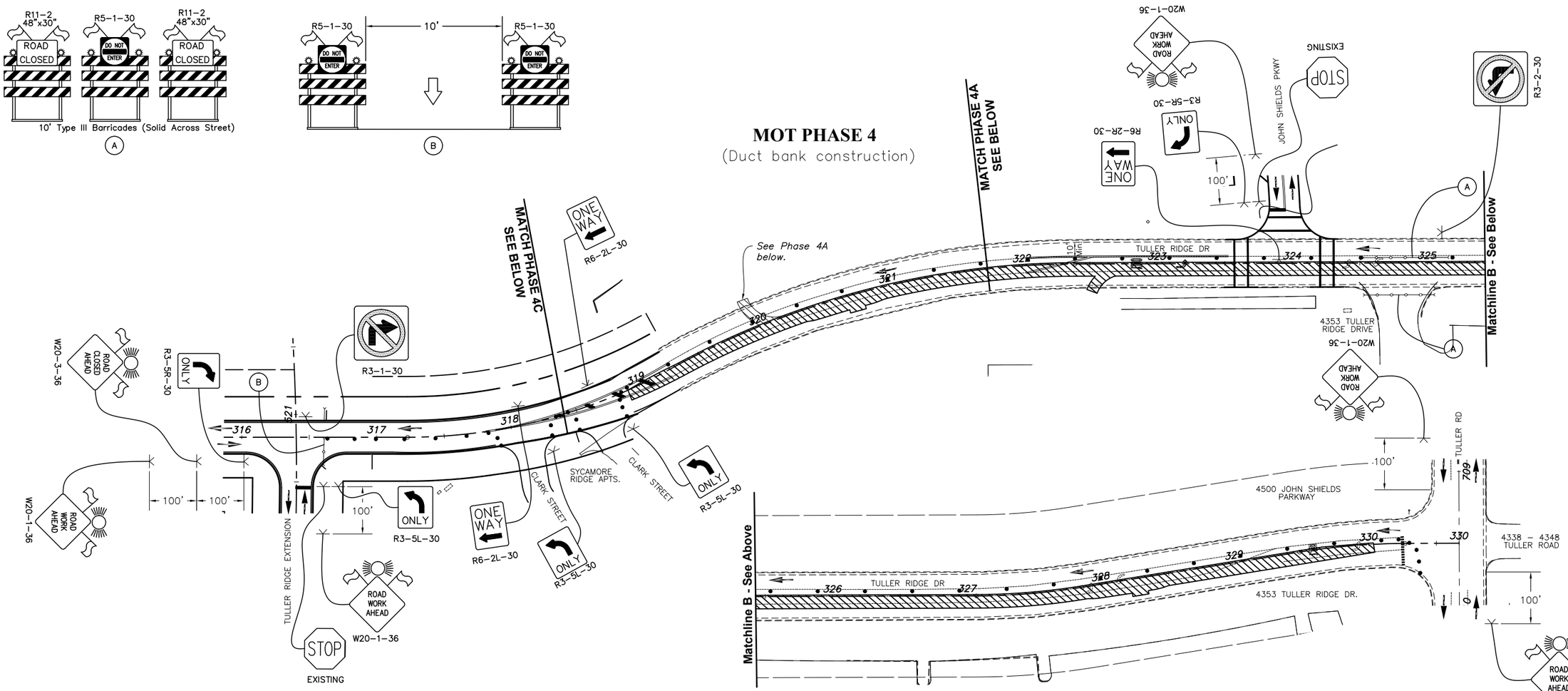
MOT PHASE 4

(Duct bank construction)

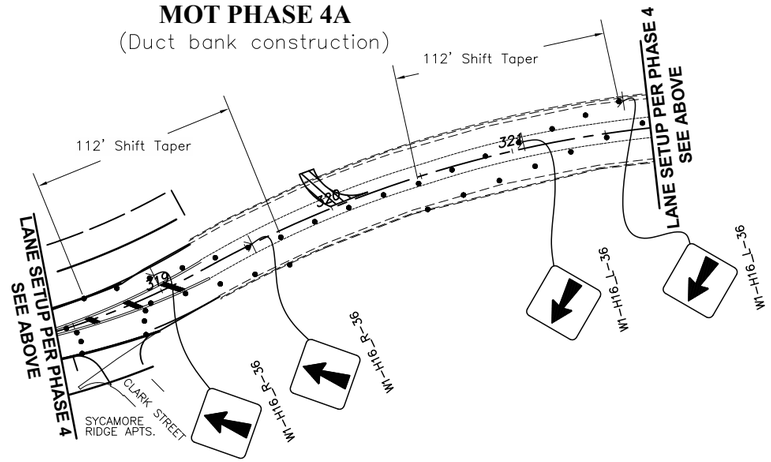


Notes:

1. Phase 4 work shall not begin until Phase 1 and 2 have been completed and the temporary roadway is open to traffic.

MOT PHASE 4A

(Duct bank construction)



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

= Temporary Sign Support

= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone

Horz. 1 inch = 40 feet

CALCULATED JMH

CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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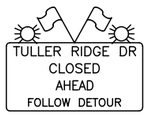


60"x48" BLK/ORG

1

48"x12" BLK/ORG

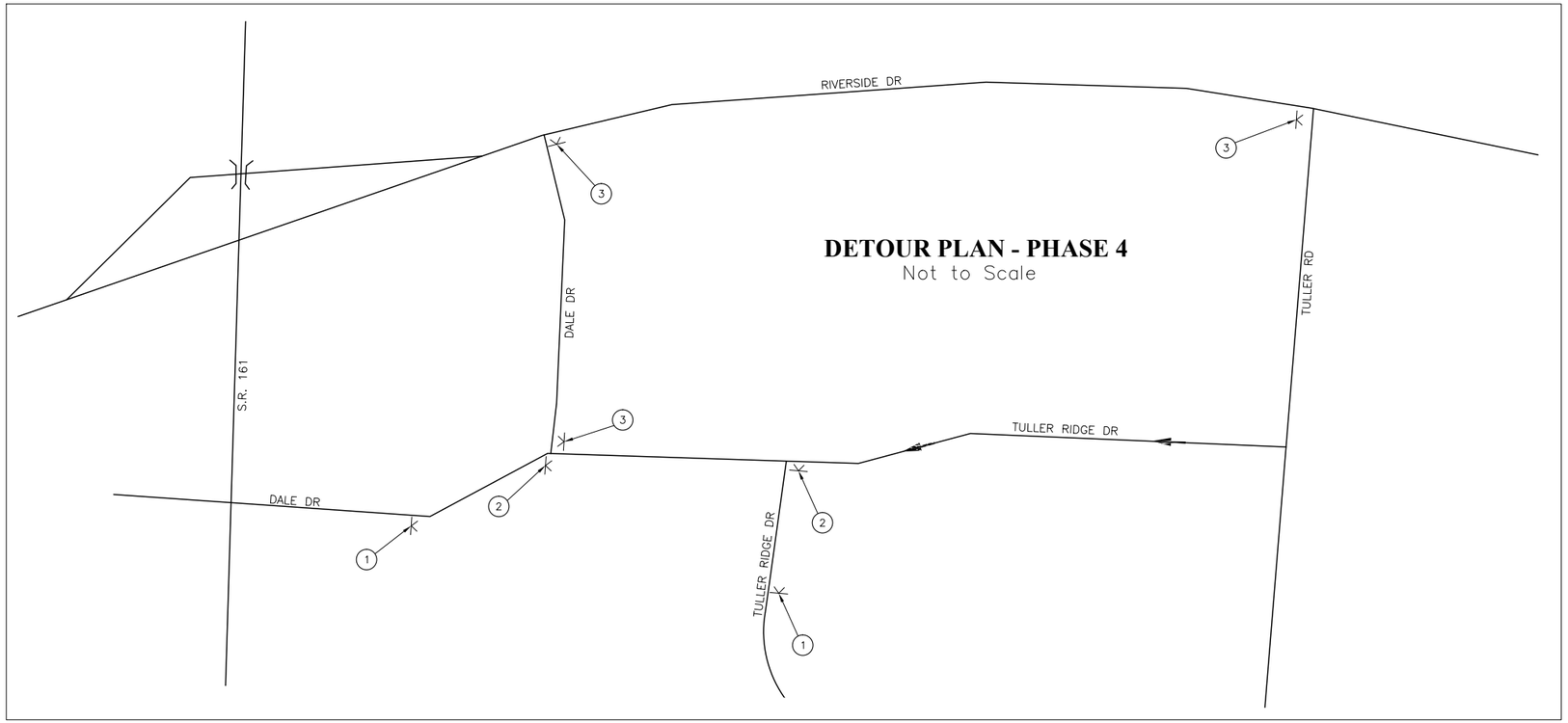
M4-9L-30

2

48"x12" BLK/ORG

M4-9R-30

3



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

= Temporary Sign Support

= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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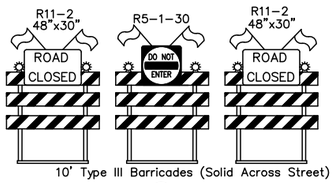


10' Type III Barricades (Solid Across Street)

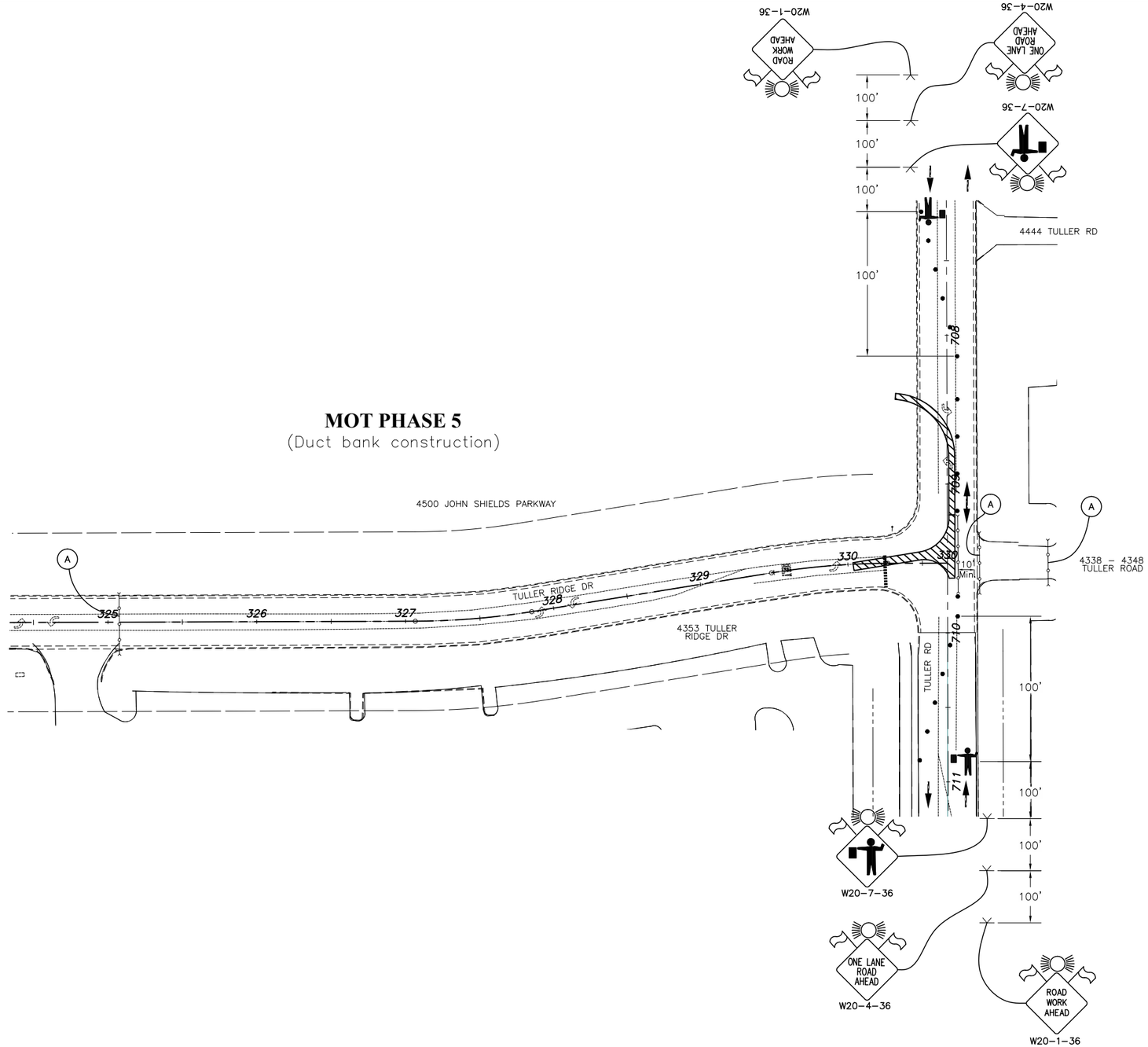
A

Notes:

1. Phase 5 work shall not begin until Phase 1 and 2 have been completed and the temporary roadway is open to traffic.
2. Closure of Tuller Ridge Drive for Phase 5 work shall be limited to weekends only.

MOT PHASE 5

(Duct bank construction)



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

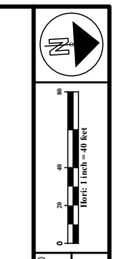
= Temporary Sign Support

= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone



CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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60"x48" BLK/ORG

1

48"x12" BLK/ORG

M4-9L-30

2

48"x12" BLK/ORG

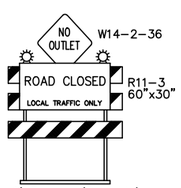
M4-9C-30

3

48"x12" BLK/ORG

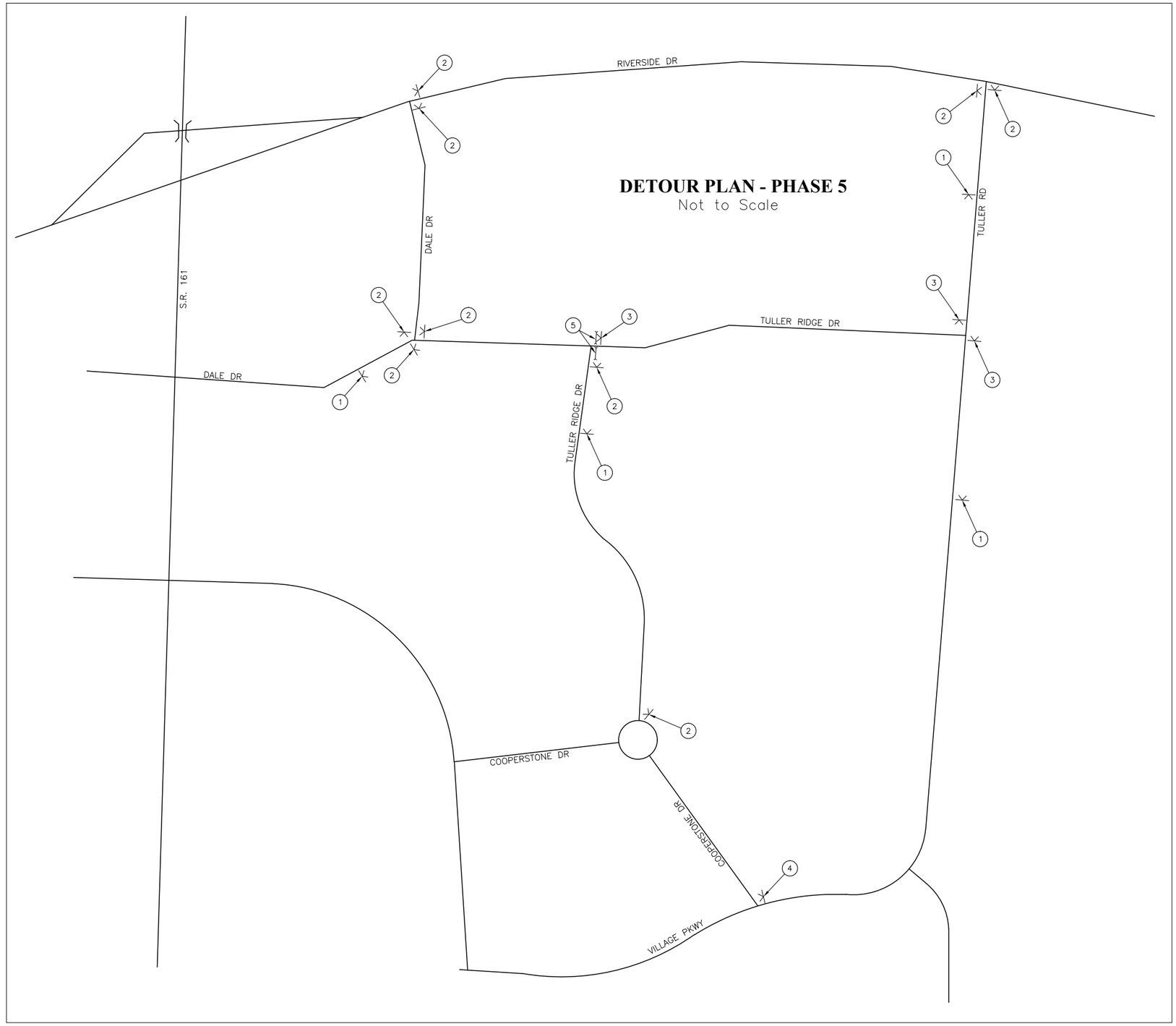
M4-9R-30

4



6' Type III (Portable)

5



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

= Temporary Sign Support

= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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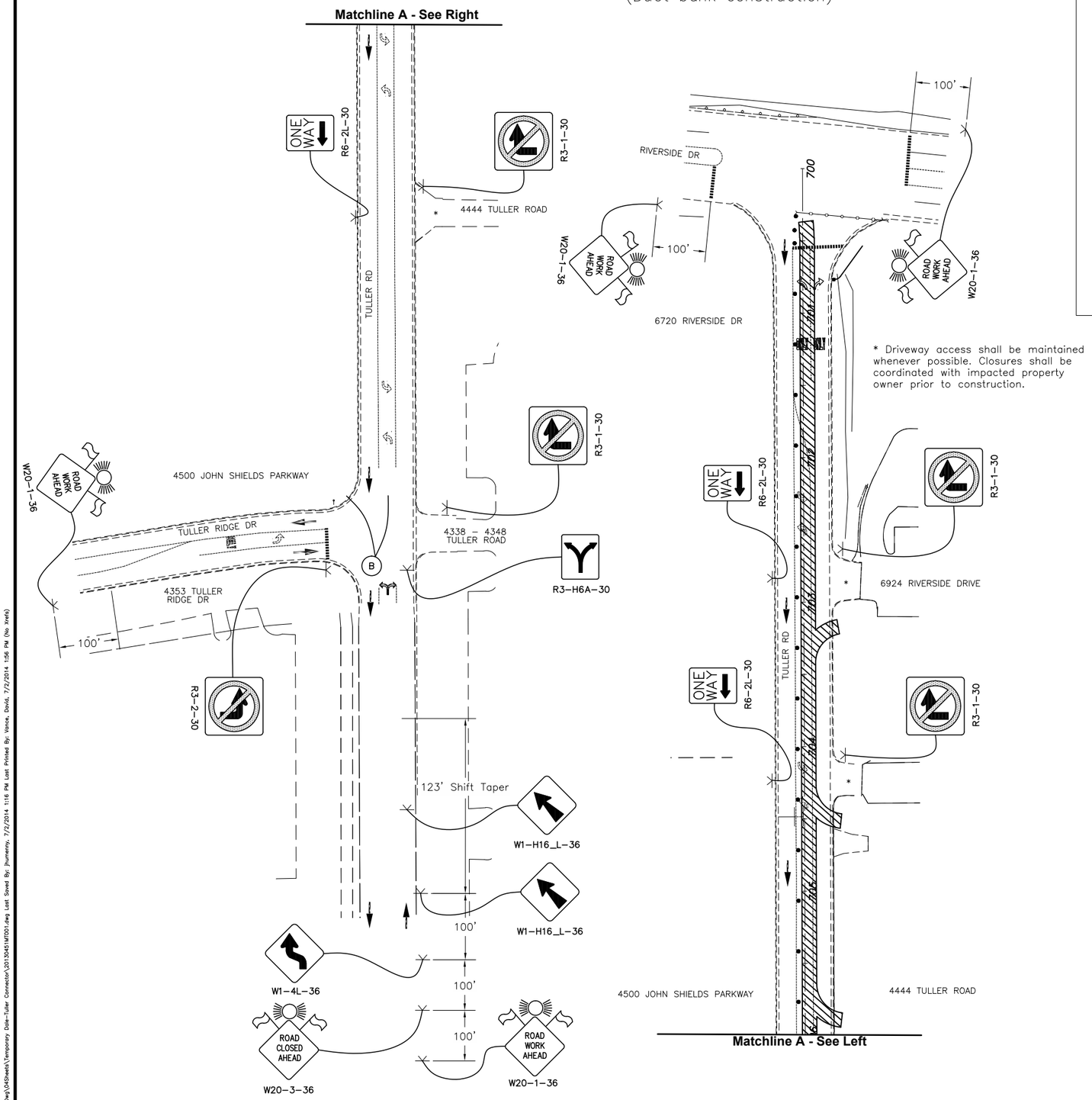
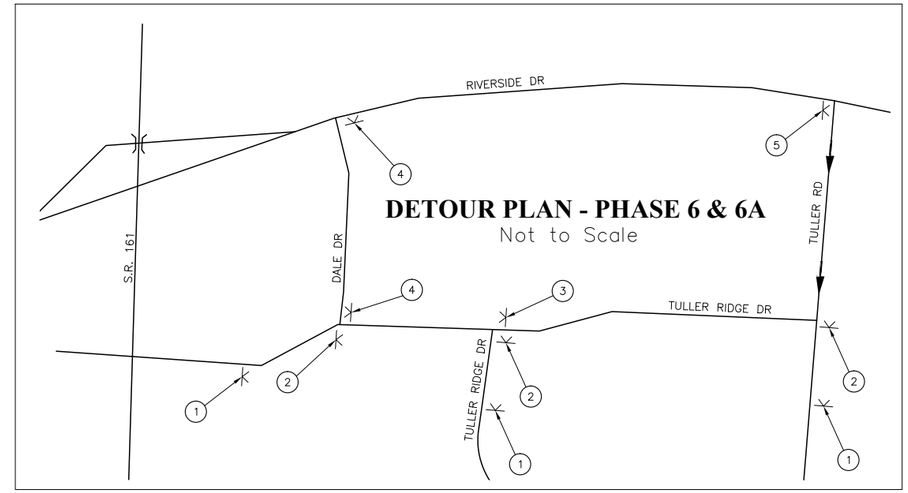
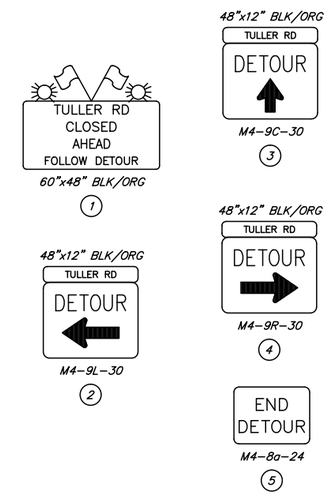
Notes:
1. Phase 6 work shall not begin until Phase 1 and 2 have been completed and the temporary roadway is open to traffic.

MOT PHASE 6
(Duct bank construction)







Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger
= Direction Of Travel
= Temporary Sign Support
= Type III Barricade
= 42" Channelizer Cone
= Orange Drum
= Work Zone

Horz. 1 inch = 40 feet

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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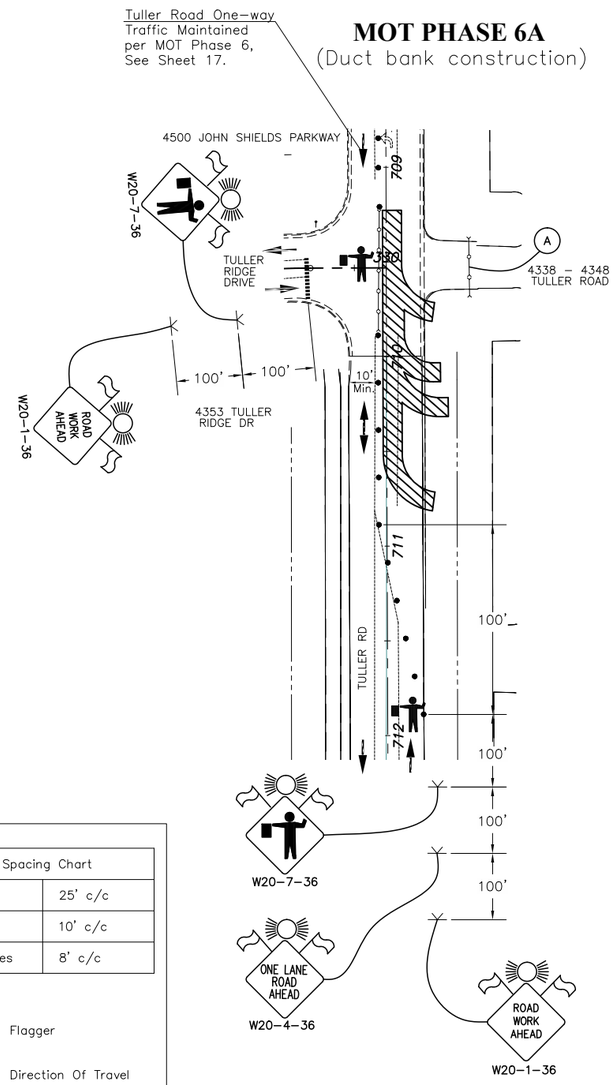
MOT PHASE 6A
(Duct bank construction)



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

= Temporary Sign Support

= Type III Barricade

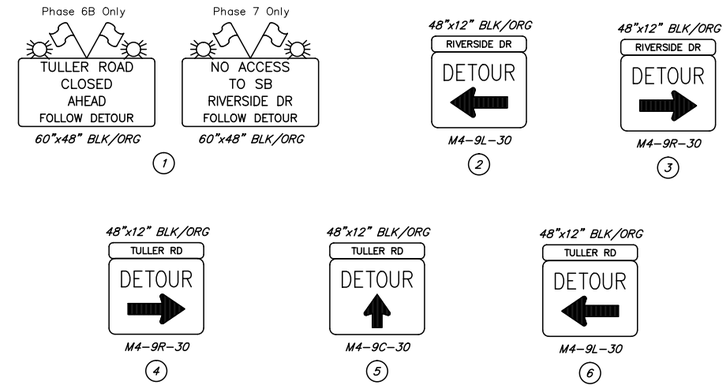
= 42" Channelizer Cone

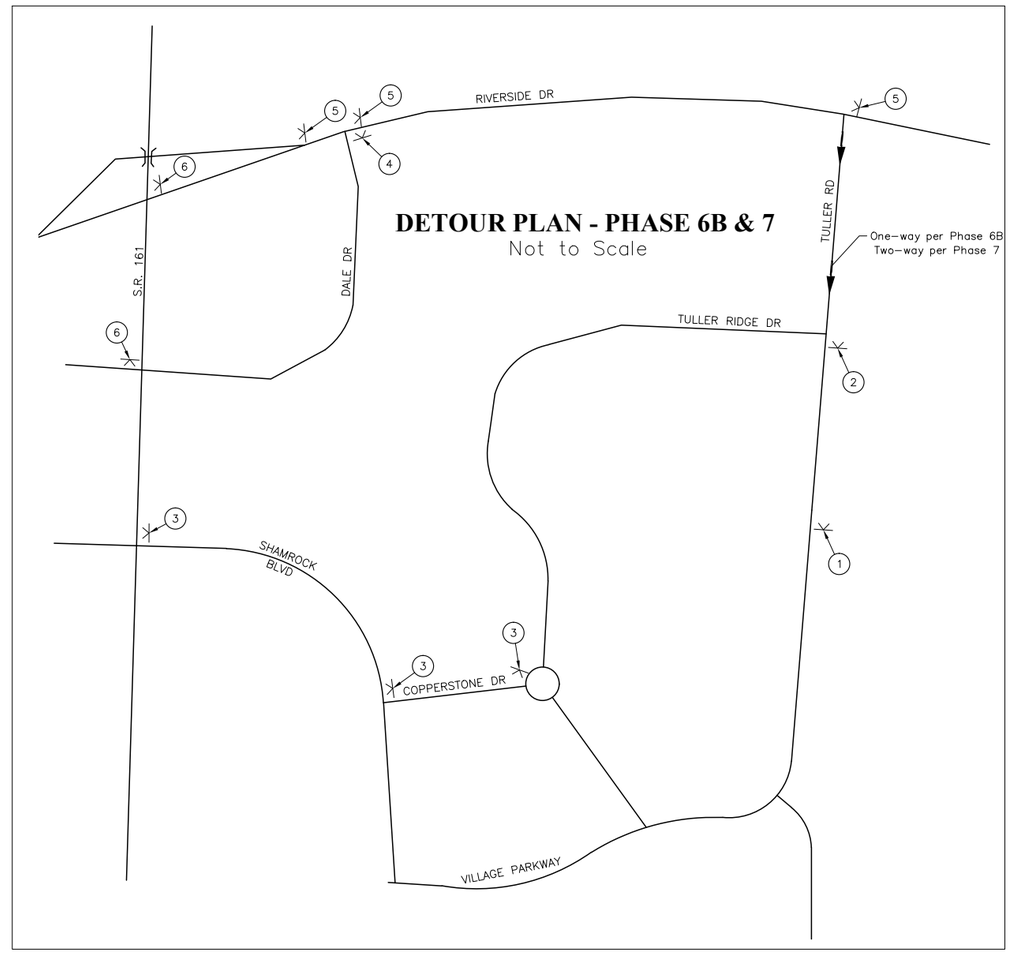
= Orange Drum

= Work Zone

Notes:

1. Phase 6A shall only be in place during off peak hours. During peak and non-working hours Tuller Road traffic shall be phased as illustrated in Phase 6 on Sheet 17. For Phase 6 peak hours are defined as 7:00–9:00 A.M. and 4:00–6:00 P.M.





CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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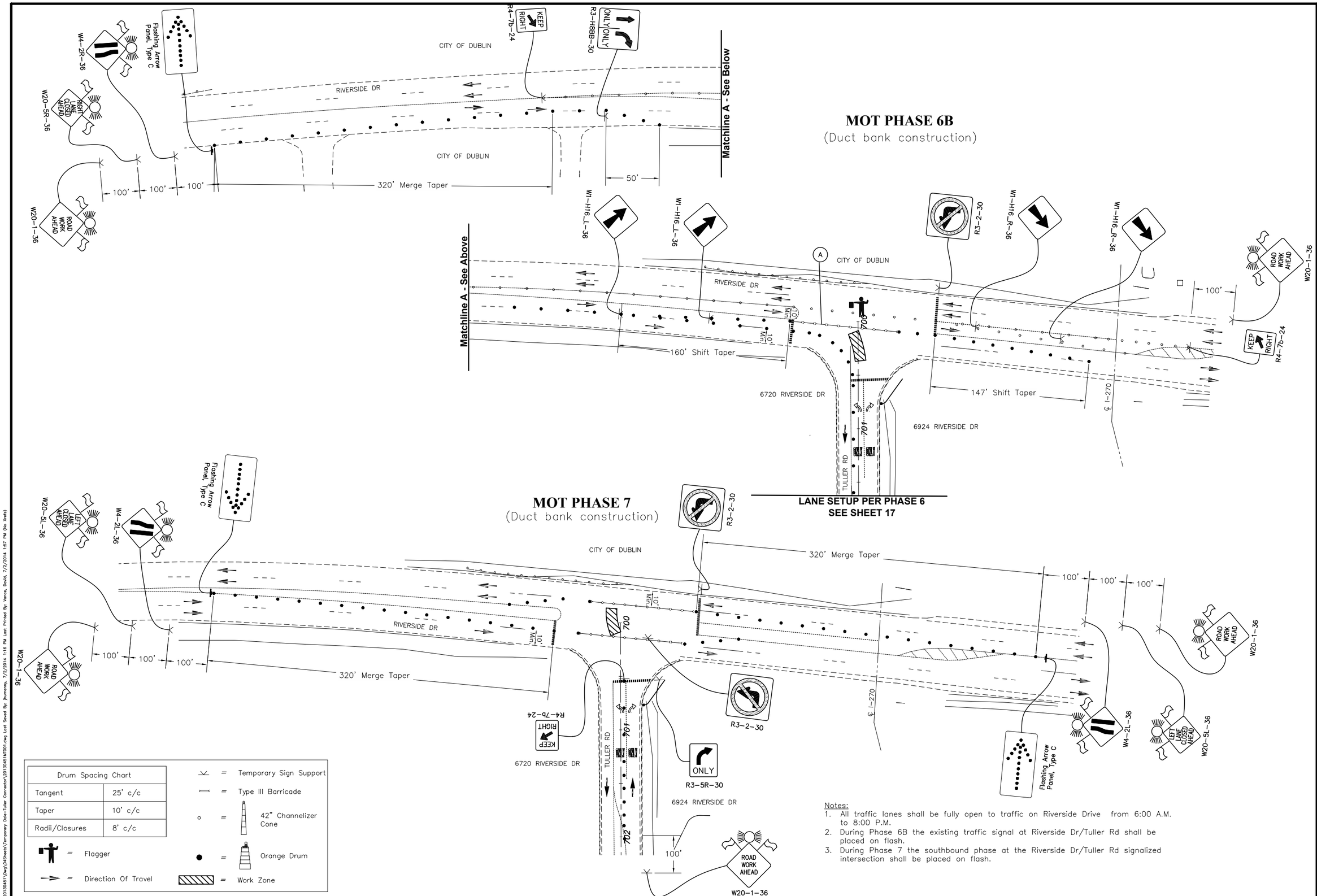

Notes:
1. All traffic lanes shall be fully open to traffic on Riverside Drive from 6:00 A.M. to 8:00 P.M.
2. During Phase 6B the existing traffic signal at Riverside Dr/Tuller Rd shall be placed on flash.
3. During Phase 7 the southbound phase at the Riverside Dr/Tuller Rd signalized intersection shall be placed on flash.

Horz. 1 inch = 40 feet

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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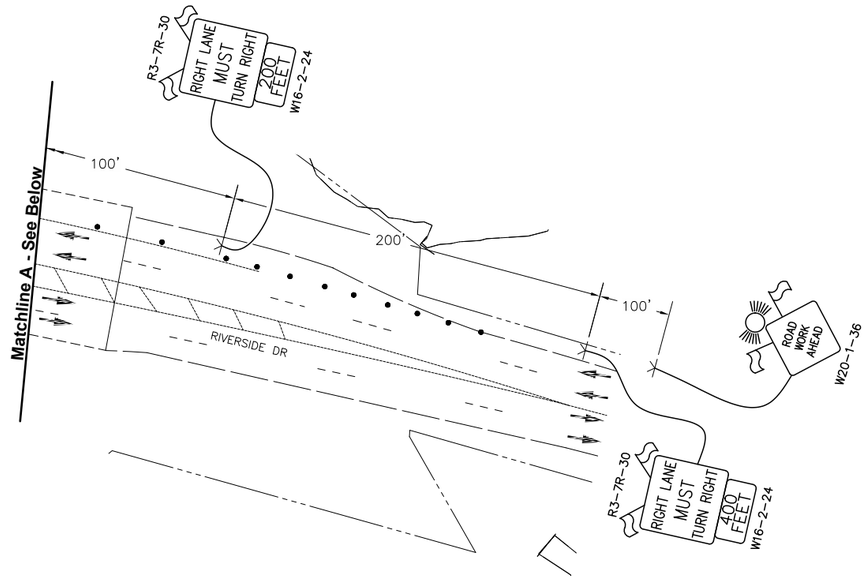
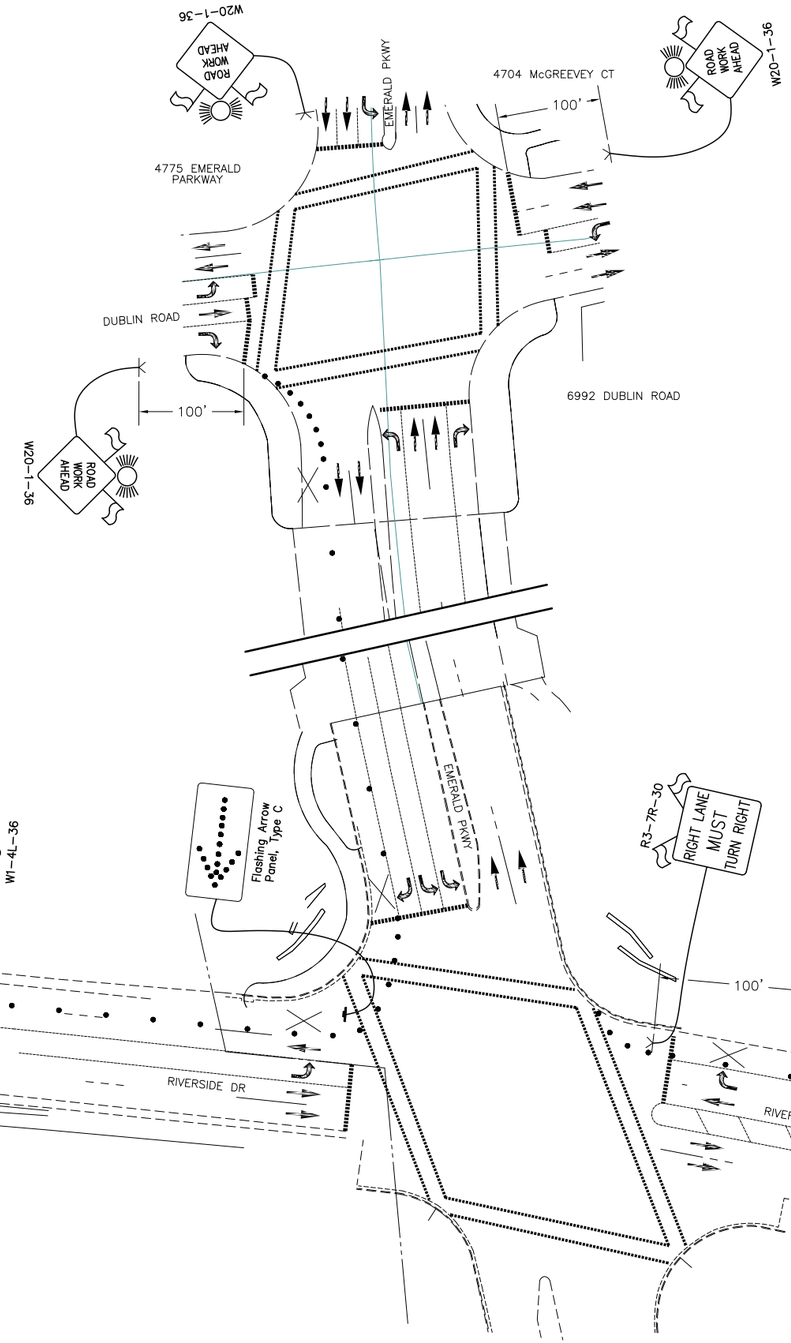
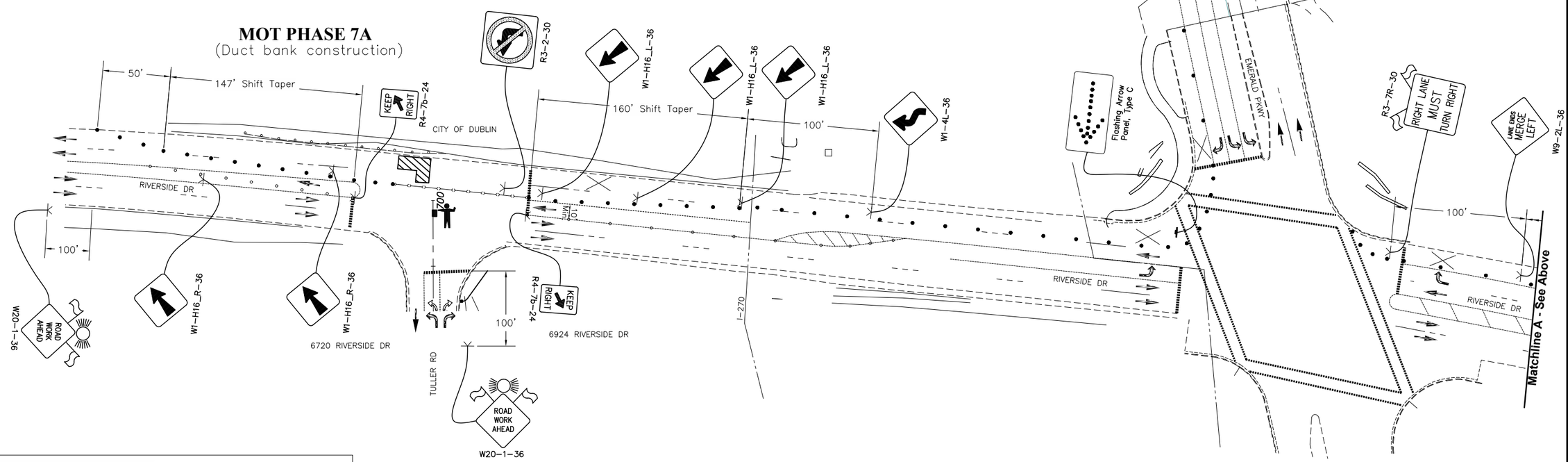




Notes:
1. All traffic lanes shall be fully open to traffic on Riverside Drive and Emerald Parkway from 6:00 A.M. to 8:00 P.M.

MOT PHASE 7A
(Duct bank construction)



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

= Temporary Sign Support

= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone

Horz. 1 inch = 40 feet

CALCULATED JMH
CHECKED JDS

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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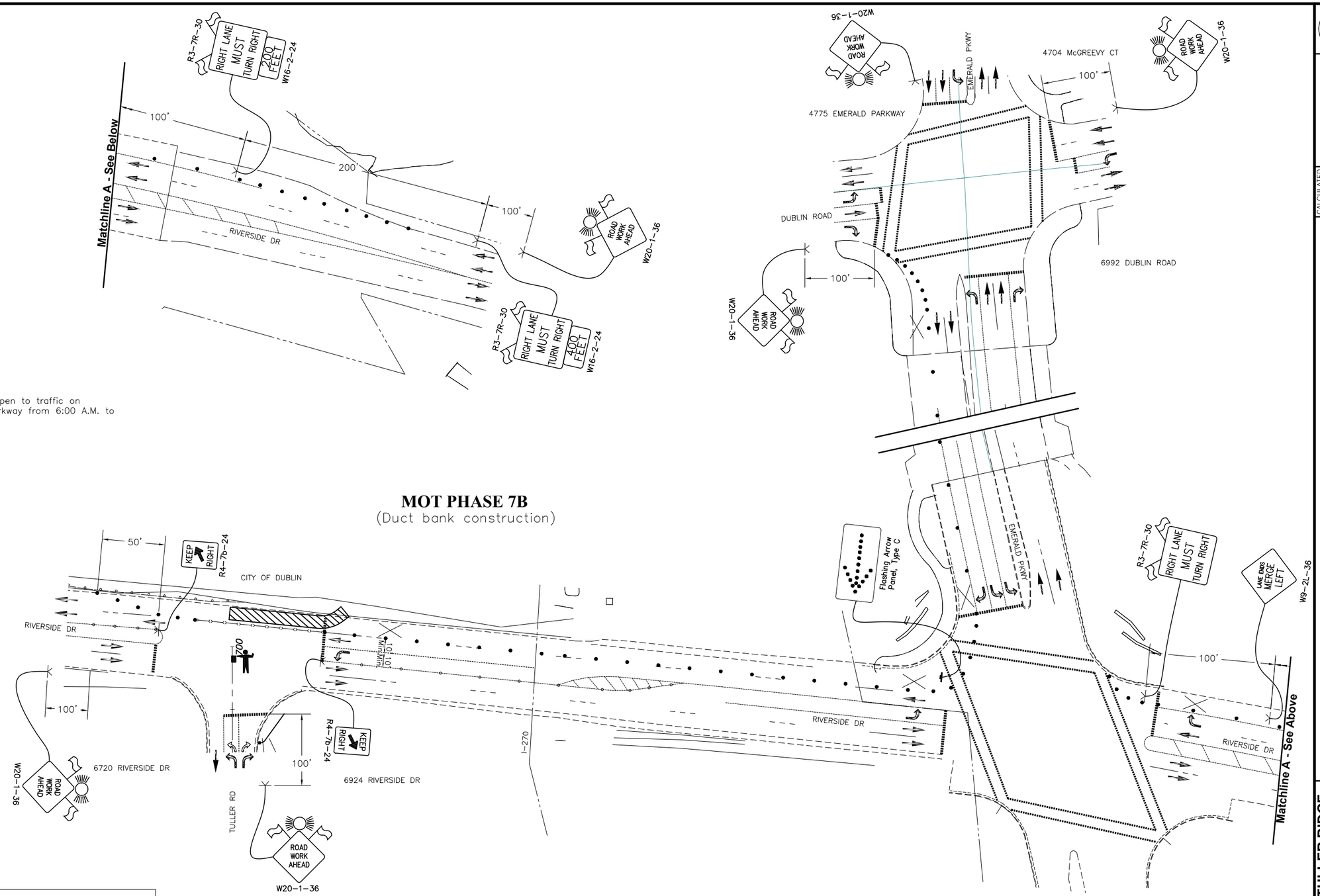
Notes:
1. All traffic lanes shall be fully open to traffic on Riverside Drive and Emerald Parkway from 6:00 A.M. to 8:00 P.M.

MOT PHASE 7B
(Duct bank construction)



Drum Spacing Chart	
Tangent	25' c/c
Taper	10' c/c
Radii/Closures	8' c/c

= Flagger

= Direction Of Travel

= Temporary Sign Support

= Type III Barricade

= 42" Channelizer Cone

= Orange Drum

= Work Zone

CALCULATED JMH
CHECKED JDS

Horz. 1 inch = 40 feet

MAINTENANCE OF TRAFFIC PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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EROSION & SEDIMENT CONTROL NOTES
Prior to Construction Operations in a particular area, all sedimentation and erosion control features shall be in place. Field adjustments with respect to locations and dimensions may be made by the Engineer.

The Contractor shall place inlet and channel protection for erosion control immediately after construction of the inlets or channels which are not tributary to a sediment basin or dam.

It may become necessary to remove portions of the barrier during construction to facilitate the grading operations in certain areas. However, the barrier shall be in place in the evening or during any inclement weather.

All soil stockpiles, including trench excavation stockpiles shall be protected from erosion by perimeter control devices such as straw bale dikes or silt fences. These perimeter control devices shall be maintained throughout the life of the project. Excavated materials shall not be stored on existing public roadway pavements. This includes excess or unusable excavated soil.

The limits of seeding and mulching are all areas within the grading limits. Those areas disturbed outside the seeding limits shall be seeded and mulched at the Contractor's expense.

CMSC Item 207 – Construction Seeding: Any area which will be left dormant (undisturbed) for more than 21 days shall be seeded within 7 days of terminated work. If permanent seeding is not applied at this time, construction seeding shall be done which shall consist of fertilizing, watering and seeding at the rates indicated under Items 207 and 659.

The Requirements of ODOT Item 659 shall govern the construction of this work, except as noted. This work shall consist of all labor, equipment and materials necessary to permanently seed disturbed areas.

MAINTENANCE: It is the Contractor's responsibility to maintain the sediment control features used on this project. The site shall be inspected at a minimum of every seven days and within 24 hours of a one–half inch (0.5") or greater rain event. Records of these inspections shall be kept and made available to jurisdictional agencies if requested. Any sediment or debris which has reduced the efficiency of a structure shall be removed immediately. Should a structure or feature become damaged, the Contractor shall repair or replace at no additional cost to the Owner or the Municipality. Not all details shown on this sheet may be required for this project.

SCHEDULE: The Contractor shall provide a schedule of operations to the City of Dublin. Sedimentation and erosion control features shall be placed in accordance with this schedule.

The Contractor shall be responsible to ensure that off–site tracking of sediments by vehicles and equipment is minimized. All such off–site sediment shall be cleaned up daily. Construction and maintenance of stabilized construction entrances are a part of that responsibility.

The Contractor shall be responsible to ensure that no solid or liquid waste is discharged into stormwater runoff. Sediment–laden water shall be filtered through the use of sediment filtering fences or sedimentation basins prior to discharge to surface waters. Concrete trucks will not be allowed to wash out or discharge surplus concrete into or along–side rivers, streams, and creeks or into natural or man–made channels or swales leading thereto. Concrete truck wash water and surplus concrete shall be confined to areas approved by the Engineer; after solidifying, these waste materials shall be removed from the site.

The Contractor shall be responsible to have the current "Plan", including this narrative, immediately available or posted on the site.

The Contractor shall be responsible to delineate, on the "Plan", all erosion and sedimentation control work actually performed; and to amend the "Plan" as required as a result of his work.

The Contractor shall be responsible to perform the required maintenance procedures and document them as required by the General Permit and the "Plan".

The following estimated quantities are included for use by the contractor to control sedimentation and erosion:

Item 207	– Construction Seeding and Mulching	18770	Sq. Yd.
Item 207	– Perimeter Filter Fabric Fence	850	Ft
Item 207	– Inlet Protection	12	Each
Item Special	– Concrete Washout Area	1	LS

EROSION & SEDIMENT CONTROL PRACTICES SUBJECT TO FIELD MODIFICATION AT THE DIRECTION OF THE CITY OF DUBLIN AND/OR OHIO EPA.

EROSION & SEDIMENT CONTROL NARRATIVE

PLAN DESIGNER: EMH&T, Inc.
Engineers, Surveyors, Planners, Scientists
5500 New Albany Road
Columbus, Ohio 43054
PH: 614–775–4500 FAX: 614–775–4800

DEVELOPER: City of Dublin
5800 Shier Rings Road
Dublin, Ohio 43016
Tel: (614) 410–4600
Fax: (614) 410–4699

PROJECT DESCRIPTION: The project consists of constructing a two lane roadway on new alignment with sidewalks and permeable paver parking.

EXISTING SITE CONDITIONS: The site currently consists of existing underdeveloped land.

AREAS OF DISTURBANCE: The project limits will be disturbed for road construction and grading.

RECEIVING STREAM: The site runoff drains West through ditches, storm Sewer and over land flow to Scioto River.

ADJACENT AREAS: The project is bounded by the Tuller Ridge Drive to the Northeast, apartments to the East and open undeveloped areas to the West, Dale Drive and to the South.

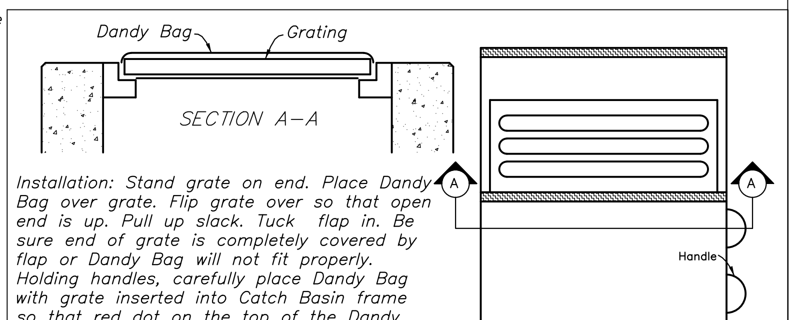
CRITICAL AREAS: None.

EROSION AND SEDIMENT MEASURES: Erosion and sediment will be controlled by the use of inlet protection at existing and proposed storm sewer structures and perimeter filter fabric fence. All construction entrances must be stabilized.

PERMANENT STABILIZATION MAINTENANCE: All disturbed areas shall be seeded and mulched. All erosion control devices are to be inspected by the construction superintendent daily and after rainfalls. Any damaged facilities are to be replaced/repaired immediately as may be necessary.

SCHEDULE: The Contractor shall provide a schedule of operations to the City of Dublin. Sedimentation and erosion control features shall be placed and maintained in accordance with this schedule.

SITE CONTACT: Same as Developer.



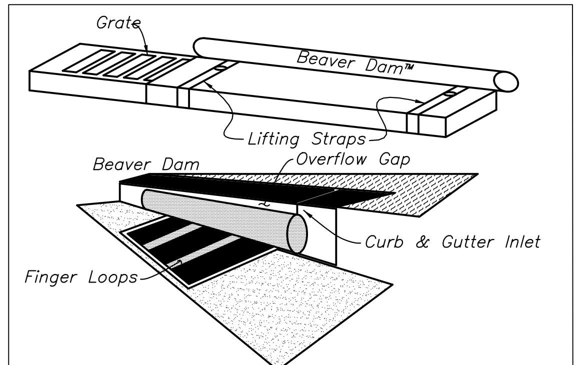
Installation: Stand grate on end. Place Dandy Bag over grate. Flip grate over so that open end is up. Pull up slack. Tuck flap in. Be sure end of grate is completely covered by flap or Dandy Bag will not fit properly. Holding handles, carefully place Dandy Bag with grate inserted into Catch Basin frame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

ITEM 207 – INLET PROTECTION (DANDY BAG)
Payment for Item 207 – Inlet Protection (Dandy Bag) shall include all equipment, material, labor, and incidentals necessary to furnish, install, maintain, and remove the inlet protection in accordance CMSC Item 207 and the notes and details above. Measurement and payment shall be in accordance with CMSC 207.

SCALE: NONE

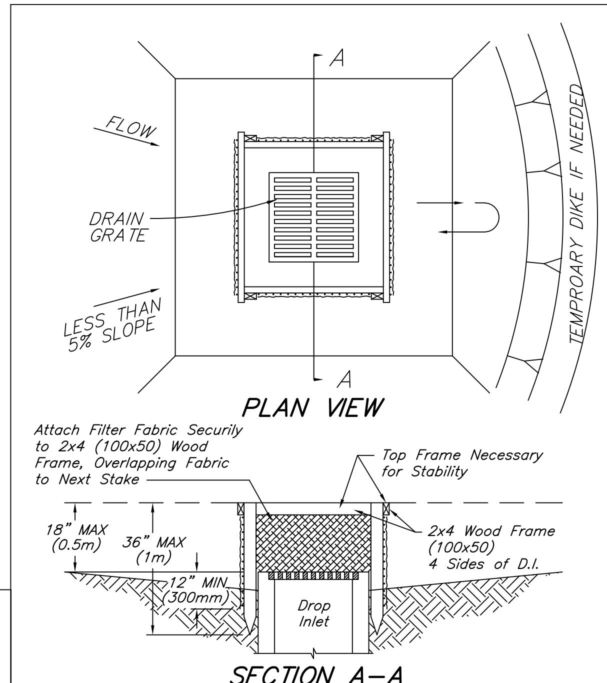
ITEM 207 – INLET PROTECTION (DANDY BAG)



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

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

THE BEAVER DAM
SCALE: NONE



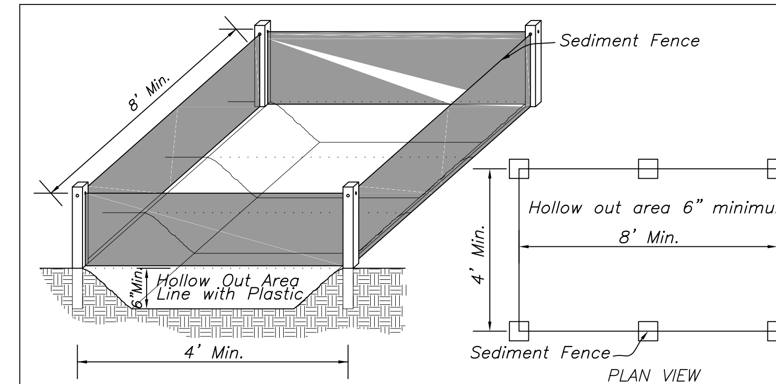
NOTES:

1. Drop Inlet Sediment Barriers are to be used for Small, Nearly Level Drainage Areas. (Less Than 5 %)
2. Use 2"x4" (100x50mm) Wood or Equivalent Metal Stakes, 3' (1m) Minimum Length.
3. Install 2"x4" (100x50mm) Wood Top Frame to Insure Stability.
4. The Top of the Frame (Ponding Height) must be well Below the Ground Elevation Downslope to Prevent Runoff from by–passing the Inlet. A Temporary Dike may be Necessary on the Downslope Side of the Structure.

(May be used as an alternate catch basin protection)

SILT FENCE DROP INLET PROTECTION
No Scale

PROVIDE FOR INLETS AS ALTERNATE TO DANDY BAG

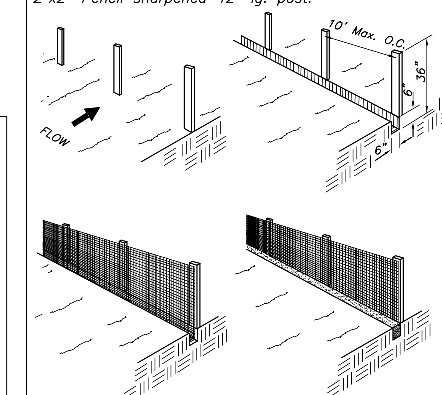


CONCRETE WASHOUT AREA
NOTES: Concrete trucks shall utilize areas to washout trucks. Accumulated concrete shall be removed from the site and disposed of properly.

Contractor to determine location of Concrete Washout Area.

CONTRACTOR RESPONSIBILITY: Details have been provided on the plans in an effort to help the Contractor provide erosion and sedimentation control. The details shown on the plan shall be considered a minimum. Additional or alternate details may be found in the O.D.N.R. Manual "Rainwater and Land Development". The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Storm Water Discharges Associated with Construction Activity.

2"x2" Pencil sharpened 42" lg. post.



SCALE: NONE

Maintenance Sediment fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.

Should the fabric on a sediment fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly.

Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one–half the height of the barrier.

Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

Sediment Fence: This sediment barrier utilizes standard strength or extra strength synthetic filter fabrics. It is designed for situations in which only sheet or overland flows are expected.

1. The height of a sediment fence shall not exceed 36–inches (higher fences may impound volumes of water sufficient to cause failure of the structure).

The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of a 6 inch overlap, and securely sealed.

1. Posts shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 16 inches). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet.
2. A trench shall be excavated approximately 6 inches wide and 6 inches deep along the line of posts and upslope from the barrier.
3. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least 1–inch long, tie wires or hog rings. The wire shall extend into the trench a minimum of 2–inches and shall not extend more than 36–inches above the original ground surface.
4. The standard strength filter fabric shall be stapled or wired to the fence, and 8–inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36–inches above the original ground surface. Filter fabric shall not be stapled to existing trees.
5. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of Item No. 6 applying.
6. The trench shall be backfilled and soil compacted over the filter fabric.
7. Sediment fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

ITEM 207 – PERIMETER FILTER FABRIC FENCE, AS PER PLAN
Payment for Item 207 – Perimeter Filter Fabric Fence, As Per Plan shall include all equipment, material, labor, and incidentals necessary to furnish, install, maintain, and remove the filter fabric fence in accordance CMSC Item 207 and the notes and details above. Measurement and Payment shall be per CMSC 207.

Hori: 1 inch = 40 feet (0 20 40 80)

CALCULATED EAM
CHECKED MRB

STORM WATER POLLUTION PREVENTION PLAN
NOTES AND DETAILS

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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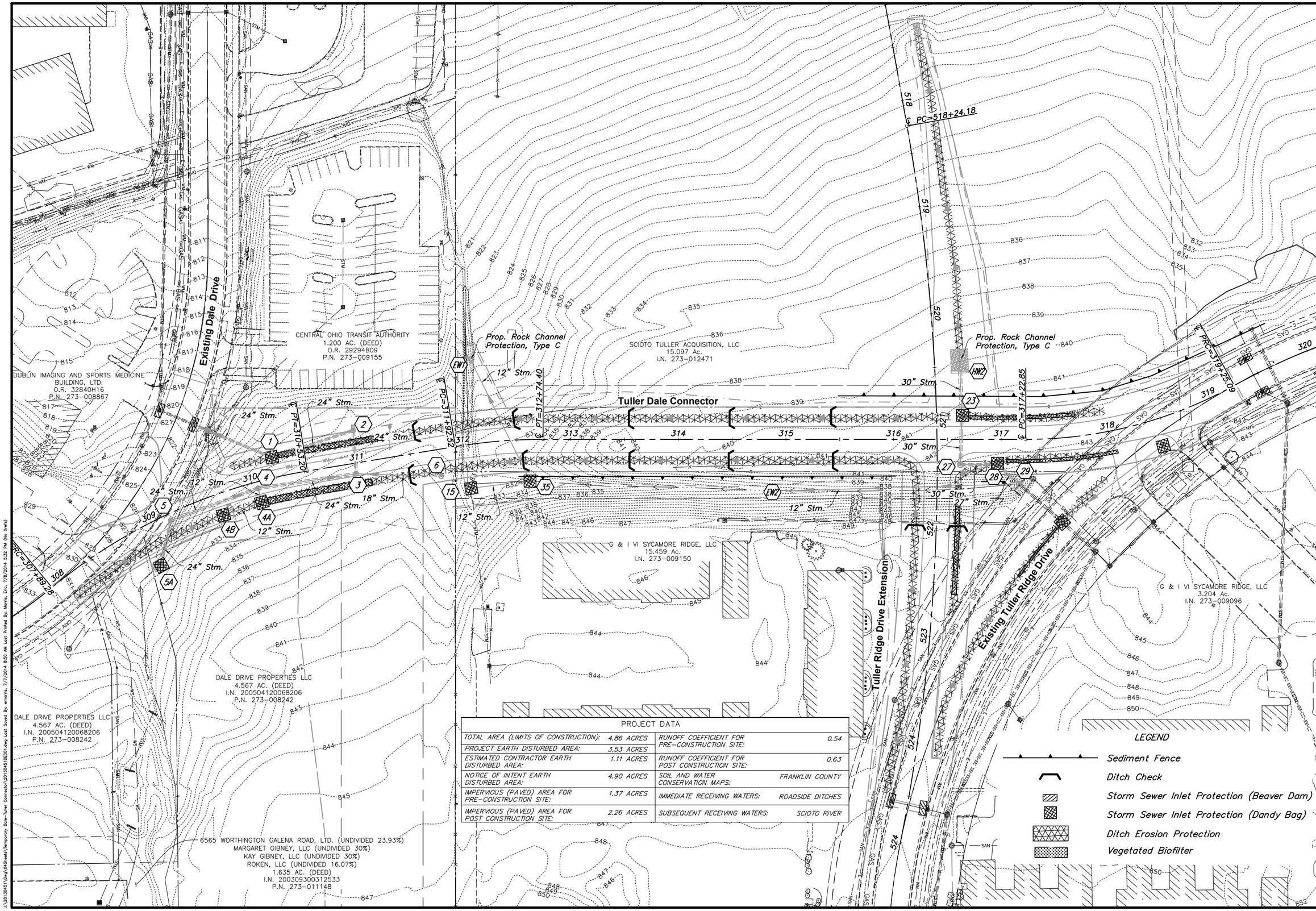

PROJECT DATA			
TOTAL AREA (LIMITS OF CONSTRUCTION):	4.86 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE:	0.54
PROJECT EARTH DISTURBED AREA:	3.53 ACRES		
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	1.11 ACRES	RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE:	0.63
NOTICE OF INTENT EARTH DISTURBED AREA:	4.90 ACRES	SOIL AND WATER CONSERVATION MAPS:	FRANKLIN COUNTY
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE:	1.37 ACRES	IMMEDIATE RECEIVING WATERS:	ROADSIDE DITCHES
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE:	2.26 ACRES	SUBSEQUENT RECEIVING WATERS:	SCIOTO RIVER

Horz: 1 inch = 40 feet

CALCULATED EAM
CHECKED MRB

STORM WATER POLLUTION PREVENTION PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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Scioto River

Existing Riverside Drive

Ex. R/W

Ex. Asph. Path

N: 767053.6754
E: 1797537.9347

N: 767445.2224
E: 1797535.5968

400'±

110'±

Existing Building

Existing Building

Existing Parking Lot

N: 767445.2736
E: 1797635.2168

N: 767053.1695
E: 1797623.7439

THE CITY OF DUBLIN, OHIO
12.884 AC. (DEED)
I.N. 201212310201439
P.N. 273-012427

SCIOTO TULLER ACQUISITION, LLC
15.097 Ac.
I.N. 273-012471

513

514

515

Future Mooney Street

LEGEND

Sediment Fence

Storm Sewer Inlet Protection (Dandy Bag)

Stockpile Area (See General Notes for for Item 203)

Horz: 1 inch = 40 feet

CALCULATED EAM

CHECKED MRB

STORM WATER POLLUTION PREVENTION PLAN
STOCKPILE AREA

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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CMS	ITEM	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				ROADWAY	
CMSC	201	1	L. SUM	CLEARING AND GRUBBING	
CMSC	202	2,850	SQ FT	WALK REMOVED	
CMSC	202	600	SQ FT	PAVEMENT REMOVED (CONCRETE)	
CMSC	202	1,350	FT	CURB AND GUTTER REMOVED	
CMSC	202	2	EACH	CURB AND GUTTER INLET REMOVED	
CMSC	203	425	FT	FENCE REMOVED	
CMSC	202	15	FT	PIPE REMOVED, 24" AND UNDER	
CMSC	203	13,339	CU YD	EXCAVATION, AS PER PLAN	5
CMSC	203	392	CU YD	EMBANKMENT, AS PER PLAN	5
CMSC	204	4	HR	PROOF ROLLING	6
CMSC	204	4,050	SQ YD	SUBGRADE COMPACTION	
CMSC	204*	600	CU YD	EXCAVATION OF SUBGRADE	5
CMSC	204*	600	CU YD	GRANULAR MATERIAL, TYPE B	5
CMSC	204*	1,100	SQ YD	GEOTEXTILE FABRIC, TYPE D	5
CMSC	608	800	SQ FT	CONCRETE WALK, AS PER PLAN (T=4")	3
CMSC	608	2	EACH	DETECTABLE WARNING (PD-03)	
				EROSION CONTROL	
CMSC	207	850	FT	PERIMETER FILTER FABRIC FENCE	22
CMSC	207	12	EACH	INLET PROTECTION	22
CMSC	207*	18,770	SQ YD	CONSTRUCTION SEEDING AND MULCHING	22
CMSC	653	1,320	CU YD	TOPSOIL FURNISHED AND PLACED (T=4")	
CMSC	659	11,860	SQ YD	SEEDING AND MULCHING, AS PER PLAN	6
CMSC	659	600	SQ YD	REPAIR SEEDING AND MULCHING, AS PER PLAN	6
CMSC	659	1.07	TON	COMMERCIAL FERTILIZER	
CMSC	659	65	M GAL	WATER	
CMSC	670	2,350	SQ YD	DITCH EROSION PROTECTION MAT, AS PER PLAN	6
CMSC	SPEC	1	L. SUM	CONCRETE WASHOUT AREA	22
				DRAINAGE	
CMSC	601	37	CU YD	ROCK CHANNEL PROTECTION, TYPE B, WITH FILTER FABRIC	
CMSC	601	1.2	CU YD	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER FABRIC	
CMSC	602	2	EACH	ENDWALL FOR 12 INCH PIPE (AA-S169)	
CMSC	602	1	EACH	HEADWALL FOR 30 INCH PIPE (AA-S168)	
CMSC	604	7	EACH	MANHOLE, TYPE C (AA-S102 WITH ST-03)	
CMSC	604	2	EACH	MANHOLE, TYPE C, (AA-S102) WITH GRATED LID	
CMSC	604	1	EACH	MANHOLE, TYPE C (AA-S102 WITH ST-03) WITH DIVERSION WEIR	46
CMSC	604	5	EACH	STANDARD CATCH BASIN (21 INCH AND SMALLER PIPE) (AA-S133A)	
CMSC	604	2	EACH	STANDARD CATCH BASIN (24 INCH AND LARGER PIPE) (AA-S133B)	
CMSC	604	1	EACH	RECTANGULAR CONCRETE CATCH BASIN 48" INLET (AA-S136)	
CMSC	605	2,360	FT	4 INCH PIPE UNDERDRAIN	
CMSC	606	160	FT	4 INCH UNCLASSIFIED PIPE UNDERDRAIN	
ODOT	611	84	FT	4 INCH CONDUIT, TYPE F (UNDERDRAIN OUTLETS)	
CMSC	901	583	FT	12 INCH PIPE, 706.02, WITH TYPE 1 BEDDING, WITH CMSC 912 COMPACTED GRANULAR MATERIAL	
CMSC	901	79	FT	18 INCH PIPE, 706.02, WITH TYPE 1 BEDDING, WITH CMSC 912 COMPACTED GRANULAR MATERIAL	
CMSC	901	397	FT	24 INCH PIPE, 706.02, WITH TYPE 1 BEDDING, WITH CMSC 912 COMPACTED GRANULAR MATERIAL	
CMSC	901	27	FT	27 INCH PIPE, 706.02, WITH TYPE 1 BEDDING, WITH CMSC 912 COMPACTED GRANULAR MATERIAL	
CMSC	901	122	FT	30 INCH PIPE, 706.02, WITH TYPE 1 BEDDING, WITH CMSC 912 COMPACTED GRANULAR MATERIAL	
				PAVEMENT	
CMSC	254	1,140	SQ YD	PAVEMENT PLANING (T=1.25 INCHES)	
CMSC	259	21	CU YD	PAVEMENT REPLACEMENT, TYPE I	
CMSC	301	501	CU YD	ASPHALT CONCRETE BASE	
CMSC	301	15	CU YD	ASPHALT CONCRETE BASE (FOR DRIVEWAY)	
CMSC	304	629	CU YD	AGGREGATE BASE	
CMSC	304	32	CU YD	AGGREGATE BASE (FOR DRIVEWAY)	
CMSC	407	280	GAL	NTSS-1HM TRACKLESS TACK COAT	6
CMSC	407	13	GAL	NTSS-1HM TRACKLESS TACK COAT (FOR DRIVEWAY)	6
CMSC	407	210	GAL	NTSS-1HM TRACKLESS TACK COAT FOR INTERMEDIATE COURSE	6
CMSC	407	10	GAL	NTSS-1HM TRACKLESS TACK COAT FOR INTERMEDIATE COURSE (FOR DRIVEWAY)	6
CMSC	423	225	LB	CRACK SEAL	
CMSC	448	146	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE (MEDIUM TRAFFIC), PG64-22	
CMSC	448	58	CU YD	VARIABLE THICKNESS ASPHALT CONCRETE INTERMEDIATE COURSE (MEDIUM TRAFFIC), PG64-22	
CMSC	448	7	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE (MEDIUM TRAFFIC), PG64-22 (FOR DRIVEWAY)	
CMSC	448	163	CU YD	ASPHALT CONCRETE SURFACE COURSE (MEDIUM TRAFFIC), PG64-22	
CMSC	448	6	CU YD	ASPHALT CONCRETE SURFACE COURSE (MEDIUM TRAFFIC), PG64-22 (FOR DRIVEWAY)	
CMSC	609	150	FT	CURB, STRAIGHT 18 INCH	3

CMS	ITEM	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				WATER WORKS	
CMSC	801	25	LF	6 INCH WATER PIPE & FITTINGS WITH TYPE 1 BEDDING, WITH ITEM 912 COMPACTED GRANULAR BACKFILL	
CMSC	801	310	LF	12 INCH WATER PIPE & FITTINGS WITH TYPE 1 BEDDING, WITH ITEM 912 COMPACTED GRANULAR BACKFILL	
CMSC	801*	50	CU YD	CONCRETE BLOCKING CLASS C, INCREASE OR DECREASE	
CMSC	801*	50	LB	DUCTILE IRON FITTINGS, INCREASE OR DECREASE	
CMSC	802	1	EACH	6" VALVE AND APPURTENANCES	
CMSC	802	2	EACH	12" VALVE AND APPURTENANCES	
CMSC	807	2	EACH	COLUMBUS STANDARD HEAVY DUTY VALVE BOX	
CMSC	809	1	EACH	FIRE HYDRANT, TYPE A	
CMSC	811*	50	CU YD	INCREASE OR DECREASE IN EXCAVATION AND BACKFILL	
CMSC	816	1	EACH	8" WATER SERVICE TAP ABANDONED	
CMSC	SPEC	1	L. SUM	SURVEY COORDINATES	
				SANITARY	
CMSC	604	2	EACH	MANHOLE, RECONSTRUCTED TO GRADE	
				TRAFFIC CONTROL	
ODOT	630+	98	LF	GROUND MOUNTED SUPPORT, NO. 3 POST, TYPE S, AS PER PLAN	49
ODOT	630+	7	EACH	2 1/4" SQUARE ANCHOR POST, AS PER PLAN	49
ODOT	630+	2	EACH	STREET NAME SIGN SUPPORT, AS PER PLAN	49
ODOT	630+	6	EACH	STREET NAME SIGN, AS PER PLAN	49
ODOT	630+	65	SQ FT	SIGN FLAT SHEET, AS PER PLAN	49
ODOT	644	0.37	MILE	CENTER LINE, 4 INCH	
ODOT	644	34	LF	STOP LINE, 24 INCH	
ODOT	644	40	LF	CHANNELIZING LINE, 8"	
ODOT	644	139	LF	TRANSVERSE LINE, 24 INCH	
ODOT	644	2	EACH	LANE ARROW, 72"	
ODOT	644	0.57	MILE	EDGE LINE, 4 INCH	
ODOT	644	33	LF	REMOVAL OF PAVEMENT MARKINGS	
				TRAFFIC SIGNAL	
ODOT	625	31	LF	CONDUIT, 2 INCH, 725.05	
ODOT	625	31	LF	TRENCH	
ODOT	625	1	EACH	PULLBOX, 725.08, 18 INCH	
ODOT	625	4	EACH	DETECTOR LOOP	
ODOT	625	160	LF	LOOP DETECTOR LEAD-IN CABLE, 2-CONDUCTOR, NO. 14 AWG	
				DUCT BANK	
CMSC	202	85	FT	CURB AND GUTTER REMOVED AND REPLACED (FOR DUCT BANK)	
CMSC	259	5	SQ YD	PAVEMENT REPLACEMENT, ASPHALT PATH	
CMSC	259	12	SQ YD	PAVEMENT REPLACEMENT, CONCRETE WALK	
CMSC	259	1,510	SQ YD	PAVEMENT REPLACEMENT, TYPE I (FOR DUCT BANK)	
CMSC	410*	60	CU YD	TRAFFIC COMPACTED SURFACE, TYPE A OR B, AS PER PLAN	52
CMSC	SPEC	100	FT	2-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CMSC 912 COMPACTED GRANULAR MATERIAL	52, 55
CMSC	SPEC	425	FT	2-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CONTROLLED DENSITY FILL	52, 55
CMSC	SPEC	75	FT	4-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CMSC 912 COMPACTED GRANULAR MATERIAL	52, 55
CMSC	SPEC	125	FT	4-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CONTROLLED DENSITY FILL	52, 55
CMSC	SPEC	400	FT	6-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CMSC 912 COMPACTED GRANULAR MATERIAL	52, 55
CMSC	SPEC	175	FT	6-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CONTROLLED DENSITY FILL	52, 55
CMSC	SPEC	750	FT	9-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CMSC 912 COMPACTED GRANULAR MATERIAL	52, 55
CMSC	SPEC	2,898	FT	9-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CONTROLLED DENSITY FILL	52, 55
CMSC	SPEC	200	FT	11-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CONTROLLED DENSITY FILL	52, 55
CMSC	SPEC	200	FT	13-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CONTROLLED DENSITY FILL	52, 55
CMSC	SPEC	225	FT	15-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH CONTROLLED DENSITY FILL	52, 55
CMSC	SPEC	100	FT	15-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH 912 COMPACTED GRANULAR MATERIAL	52, 55
CMSC	SPEC	100	FT	27-5" PVC, SCHEDULE 40, CONDUIT CONCRETE ENCASED IN TRENCH WITH 912 COMPACTED GRANULAR MATERIAL	52, 55
CMSC	SPEC	10	EACH	ELECTRIC MANHOLE, COMPLETE	52, 53
CMSC	SPEC	4	EACH	SWITCH GEAR PAD, COMPLETE	52, 54
CMSC	SPEC	5	EACH	RISER CONDUITS, COMPLETE	54
CMSC	SPEC *	250	CU YD	INCREASE OR DECREASE IN EXCAVATION	
CMSC	SPEC	900	FT	1-4" AND 12-1.25" SDR-11 CONDUITS WITH CMSC 912 COMPACTED GRANULAR MATERIAL	55
CMSC	SPEC	2,575	FT	1-4" AND 12-1.25" SDR-11 CONDUITS WITH CONTROLLED DENSITY FILL	55
CMSC	SPEC	100	FT	1-4" AND 12-1.25" SDR-11 CONDUITS HORIZONTALLY DIRECTIONALLY DRILLED	55
CMSC	SPEC	5	EACH	COMMUNICATIONS MANHOLE, COMPLETE	60
				MISCELLANEOUS	
DUBLIN	108.03	1	L. SUM	TYPE B - CRITICAL PATH METHOD (CPM) SCHEDULE	
CMSC	614	1	L. SUM	MAINTAINING TRAFFIC, AS PER PLAN	7
CMSC	623	1	L. SUM	CONSTRUCTION LAYOUT STAKES	
CMSC	624	1	L. SUM	MOBILIZATION	
CMSC	SPEC	1	L. SUM	PROOF SURVEY	4

Notes:

CMSC = City of Columbus Construction and Material Specifications, 2012 Edition

ODOT = Ohio Department of Transportation Construction & Material Specifications, 2013 Edition

* = Denotes Contingency to be used as directed by the Engineer

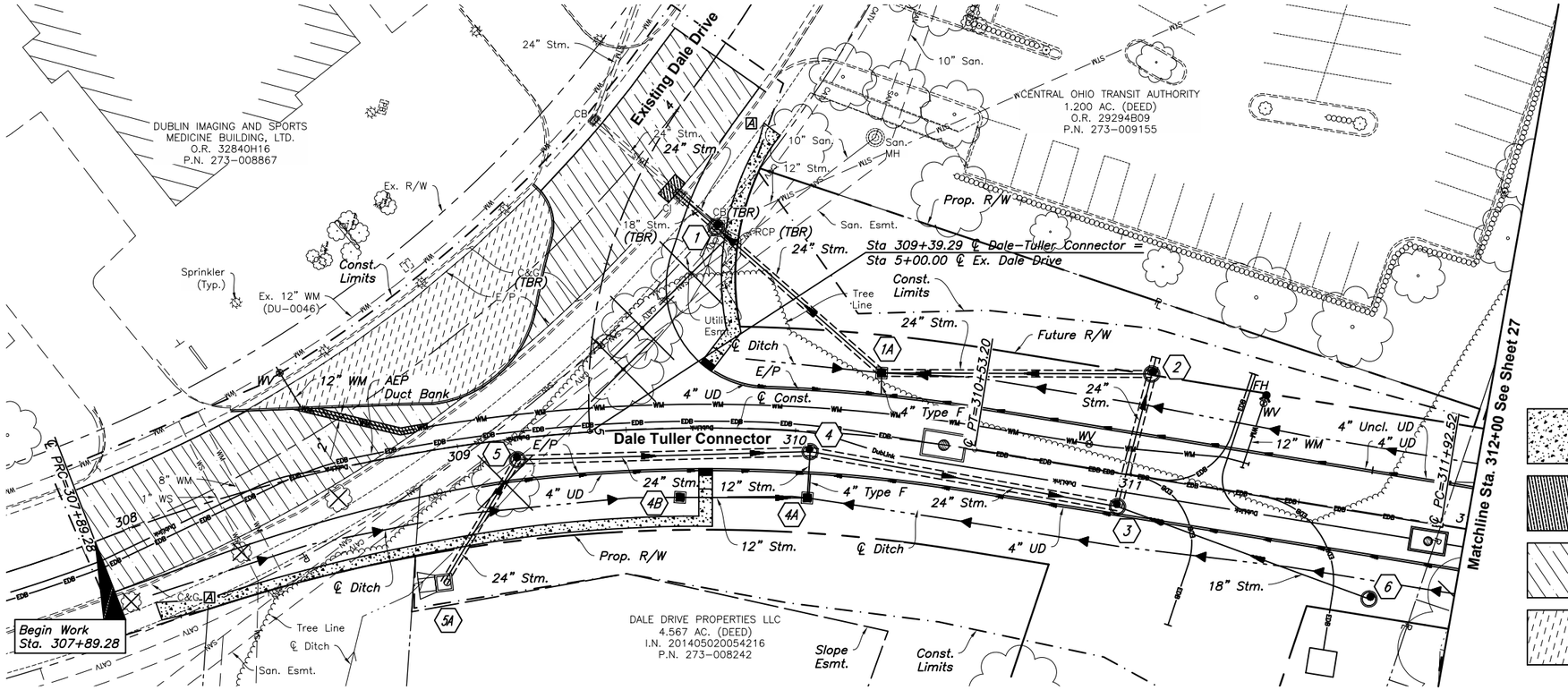
+ = Denotes items to be furnished and installed by the City of Dublin. Do not bid.

CALCULATED EAM
CHECKED MRB

GENERAL SUMMARY

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

J:\2013\3451\Dwg\04Sheets\Temporary Dale-Tuller Connector\20130451G0001.dwg, Last Saved By: mbrehm, 7/2/2014 5:24 PM Last Printed By: Brehm, Michael, 7/9/2014 8:23 AM (No Xref)



Tree To Be Removed

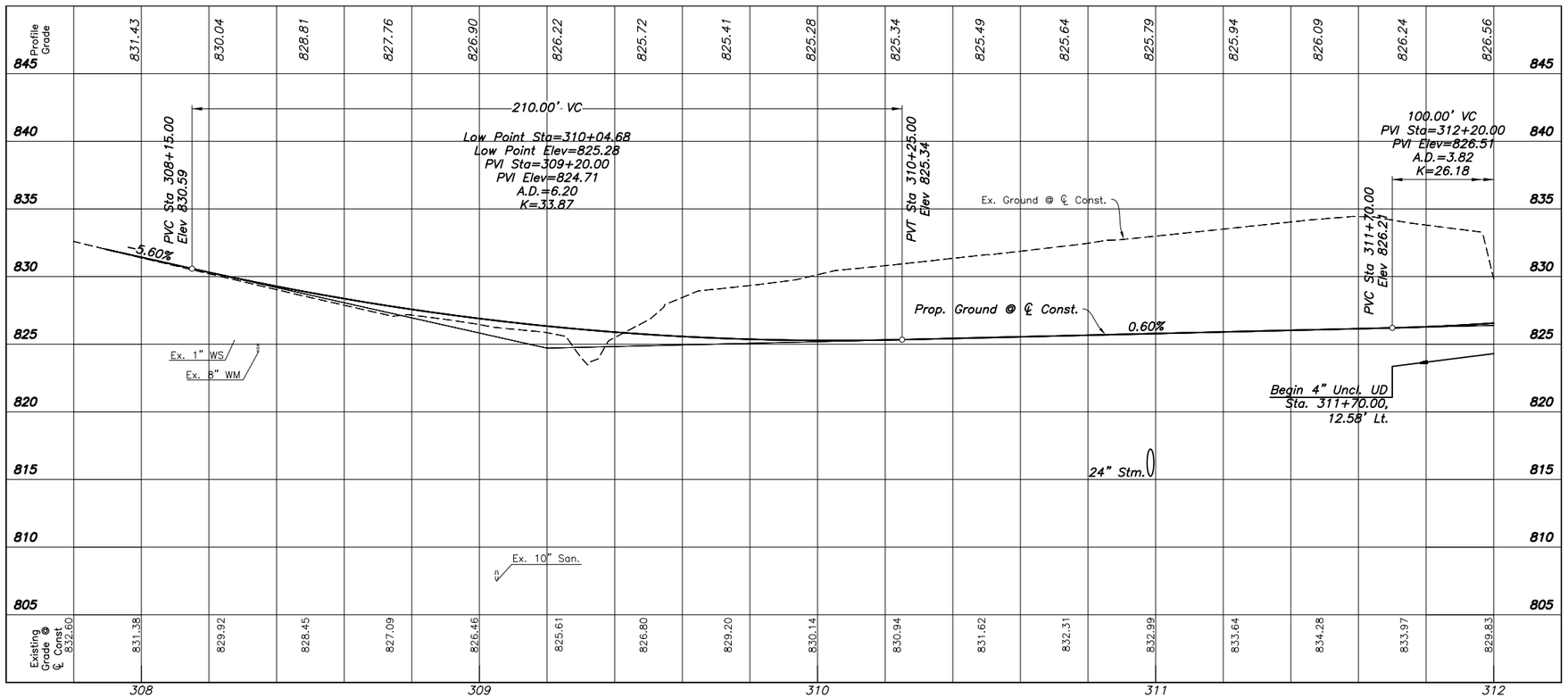
Proposed Concrete Sidewalk

Permanent Pavement Replacement, Type I

Pavement to be Resurfaced w/ Wedge Course

Pavement to be Removed

[A] (For Removal Limits see sht 43.) curb reveal shall be tapered from 0" to 6" over 5 feet for last 5' of curb to remain.



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
3	TYPICAL SECTIONS
29–36	CROSS SECTIONS – DALE–TULLER
43	INTERSECTION DETAIL
45–46	STORM SEWER PROFILES
47–48	WATER MAIN
52–74	AEP AND DUBLINK PLAN

CALCULATED EAM
CHECKED MRB

PLAN AND PROFILE - DALE-TULLER
STA. 307+89.28 TO STA. 312+00

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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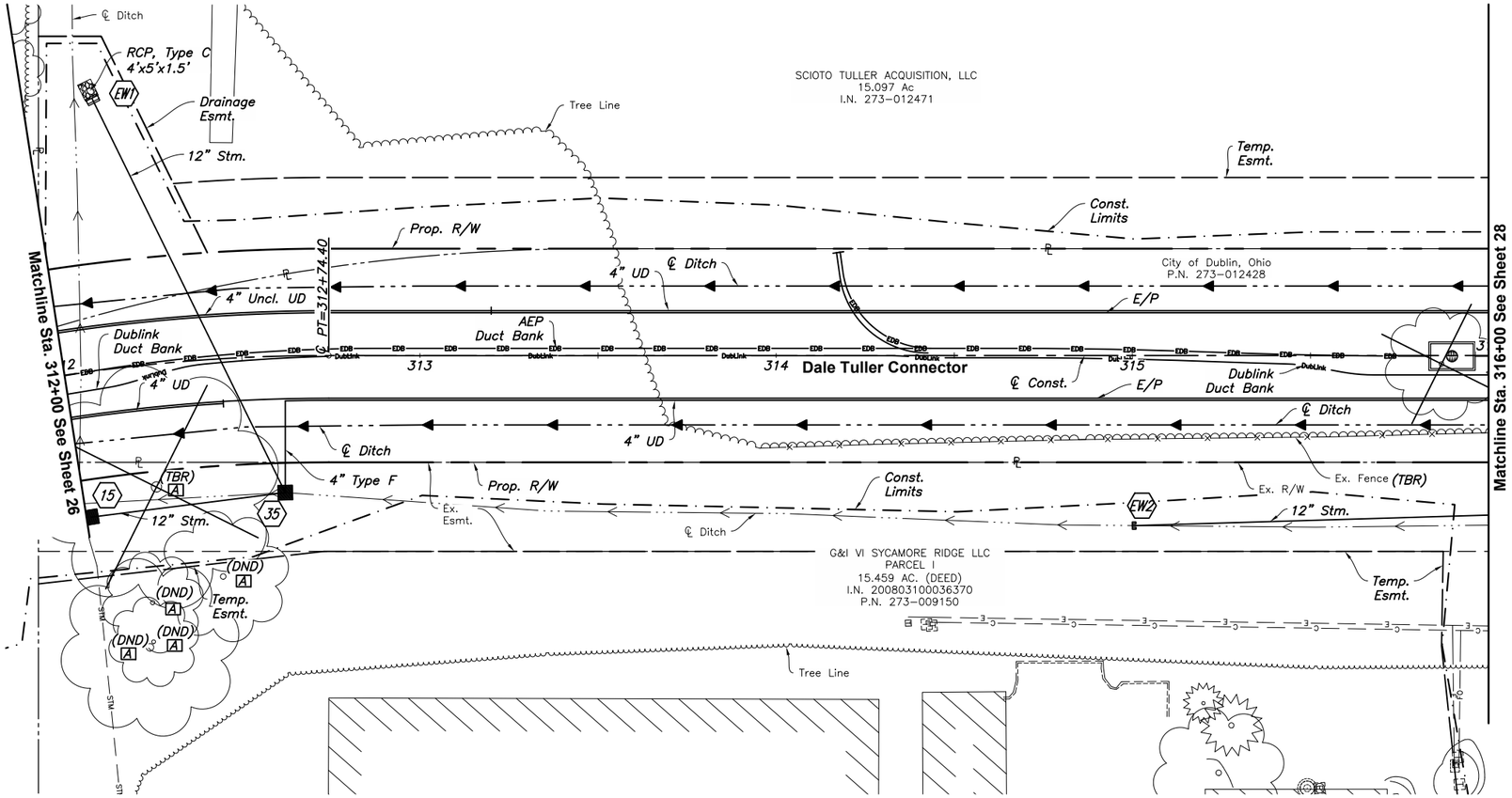
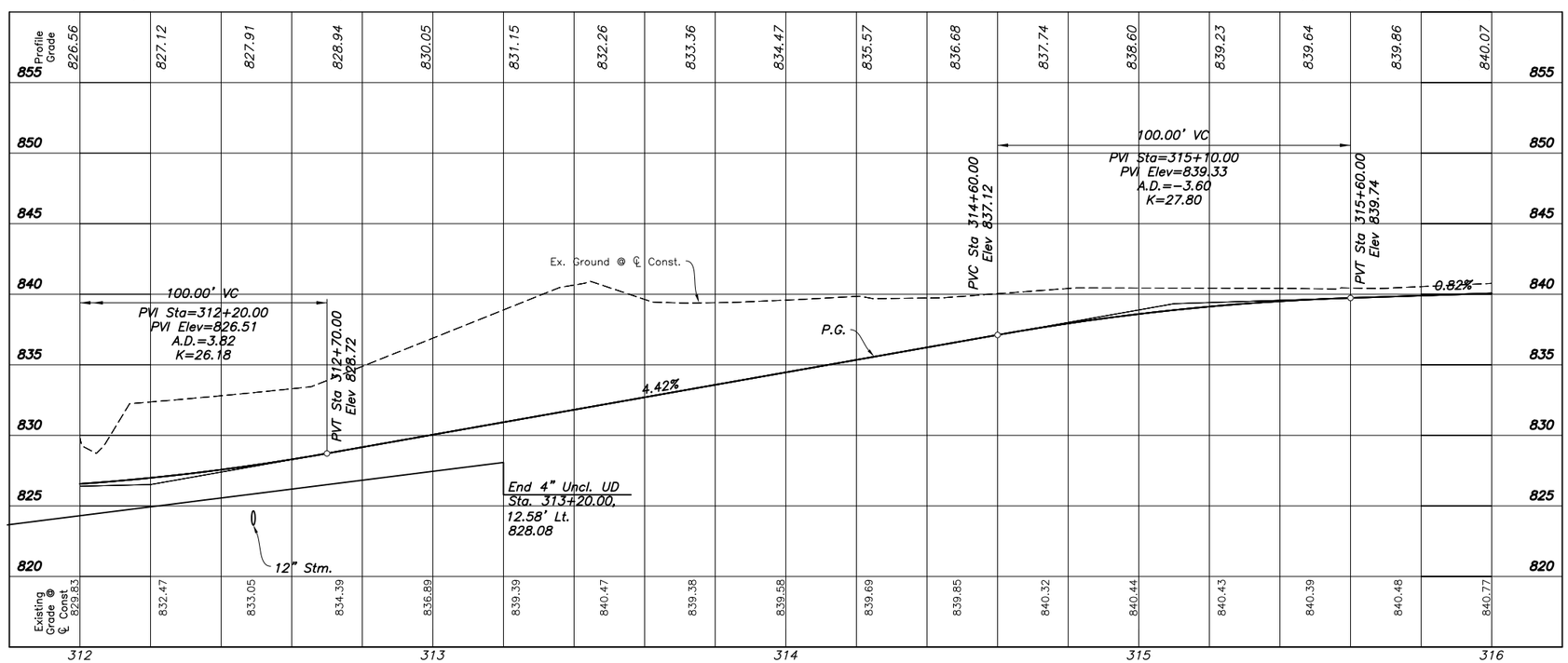


A Do not disturb the potential Indiana Bat Habitat tree between April 1 and September 30. Do not install 12" Storm Sewer between Structure 35 and Structure 15 until after October 1.

Tree To Be Removed



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
3	TYPICAL SECTIONS
29–36	CROSS SECTIONS – DALE–TULLER
45–46	STORM SEWER PROFILES
47–48	WATER MAIN
52–74	AEP AND DUBLINK PLAN

Vert.: 1 Inch = 5 feet
Horiz.: 1 Inch = 20 feet

CALCULATED EAM
CHECKED MRB

PLAN AND PROFILE - DALE-TULLER STA. 312+00 TO STA. 316+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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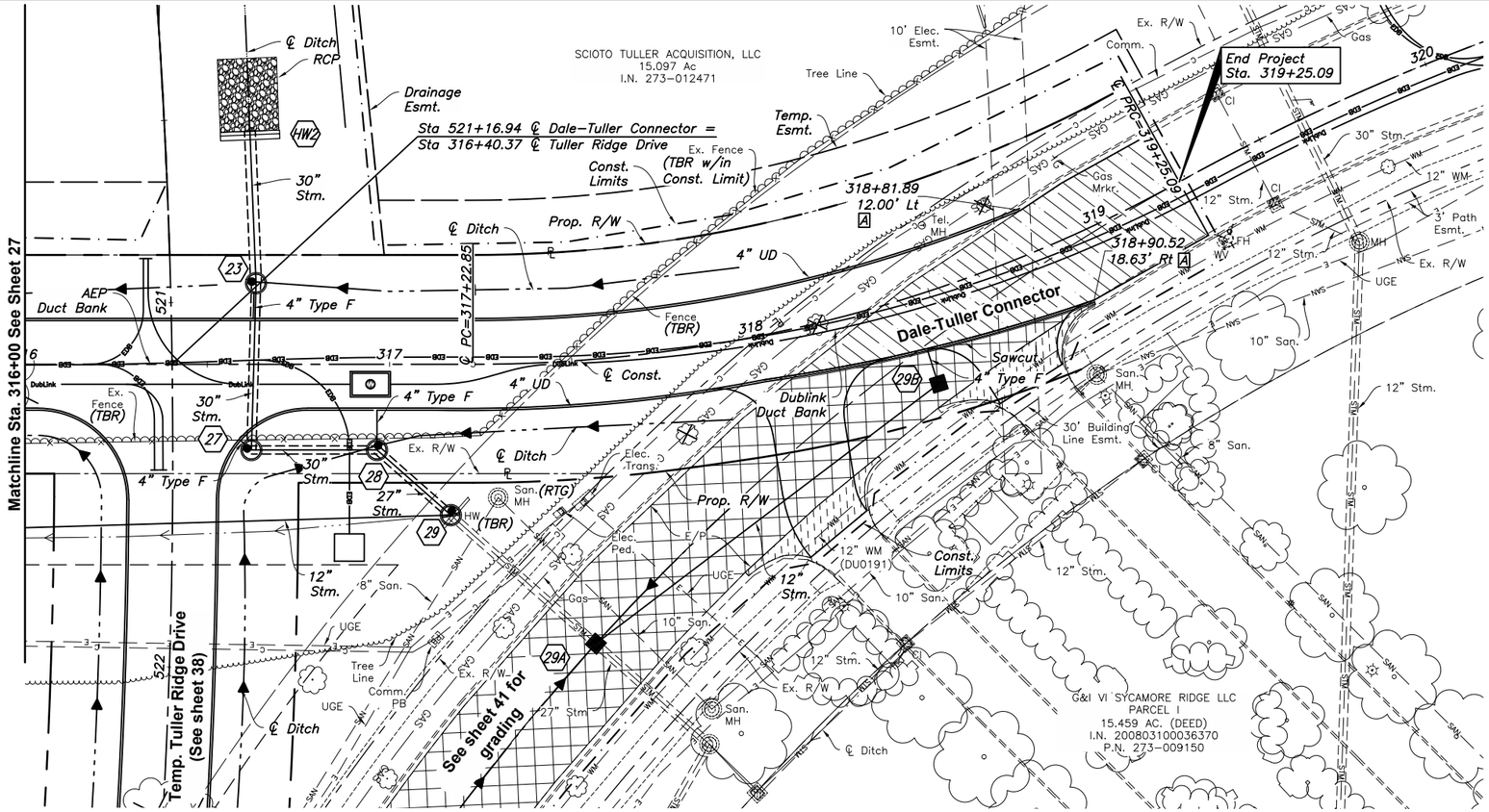
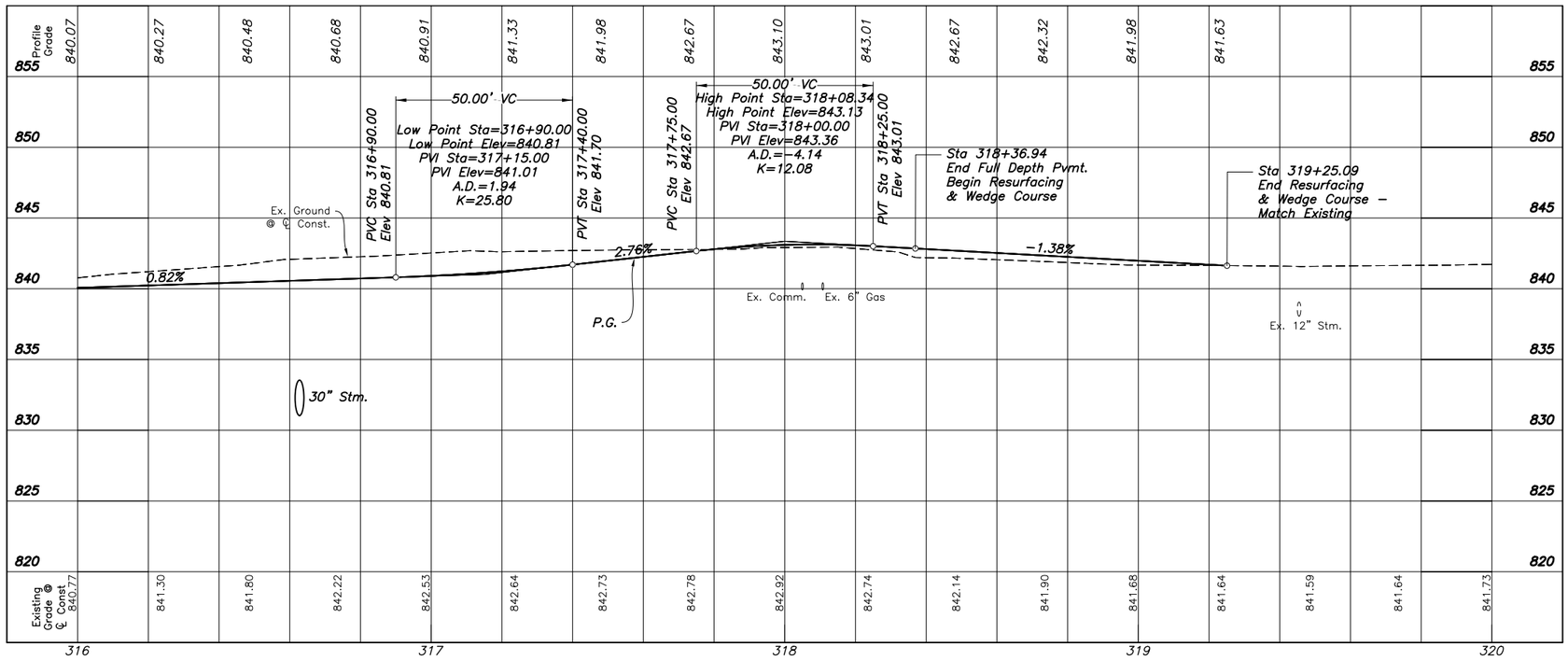


[A] Curb reveal shall be tapered from 0" to 6" over 5 feet for last 5' of curb to remain.



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
3	TYPICAL SECTIONS
29-36	CROSS SECTIONS – DALE-TULLER
37	STORM SEWER OUTLET DITCH PLAN AND PROFILE
41	GRADING DETAIL
42	INTERSECTION DETAIL
44	DRIVE DETAIL
46	STORM SEWER PROFILES
52-74	AEP AND DUBLINK PLAN

CALCULATED EAM
CHECKED MRB

PLAN AND PROFILE - DALE-TULLER STA. 316+00 TO STA. 319+25.09

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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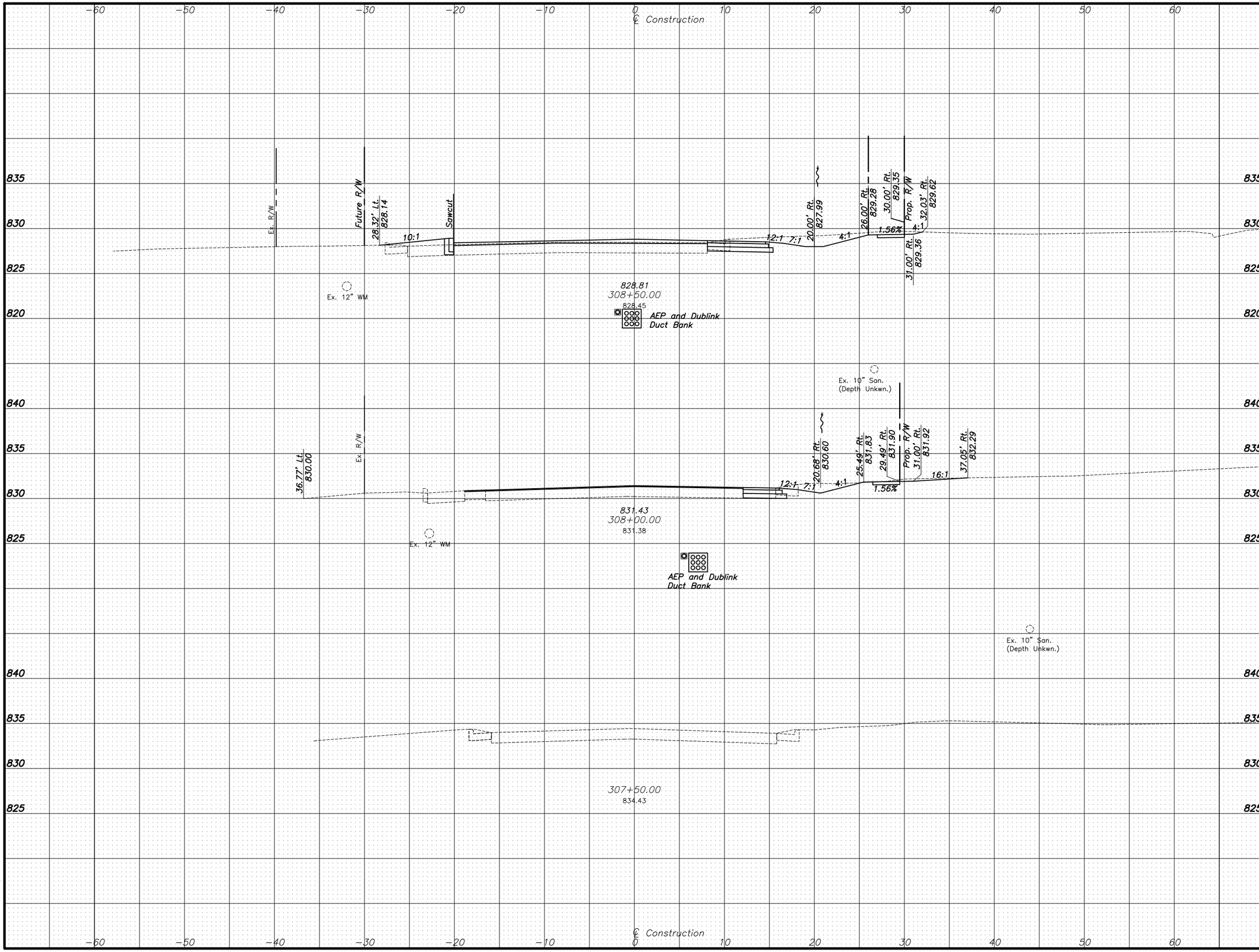

	End Area		Volume	
	Cut (Sq.Ft.)	Fill (Sq.Ft.)	Cut (Cu.Yd.)	Fill (Cu.Yd.)
	32	3		
			45	4
	16	1		
			15	1
	0	0		
Sheet Total			60	5

Hor. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER
STA 307+50 TO STA 308+50

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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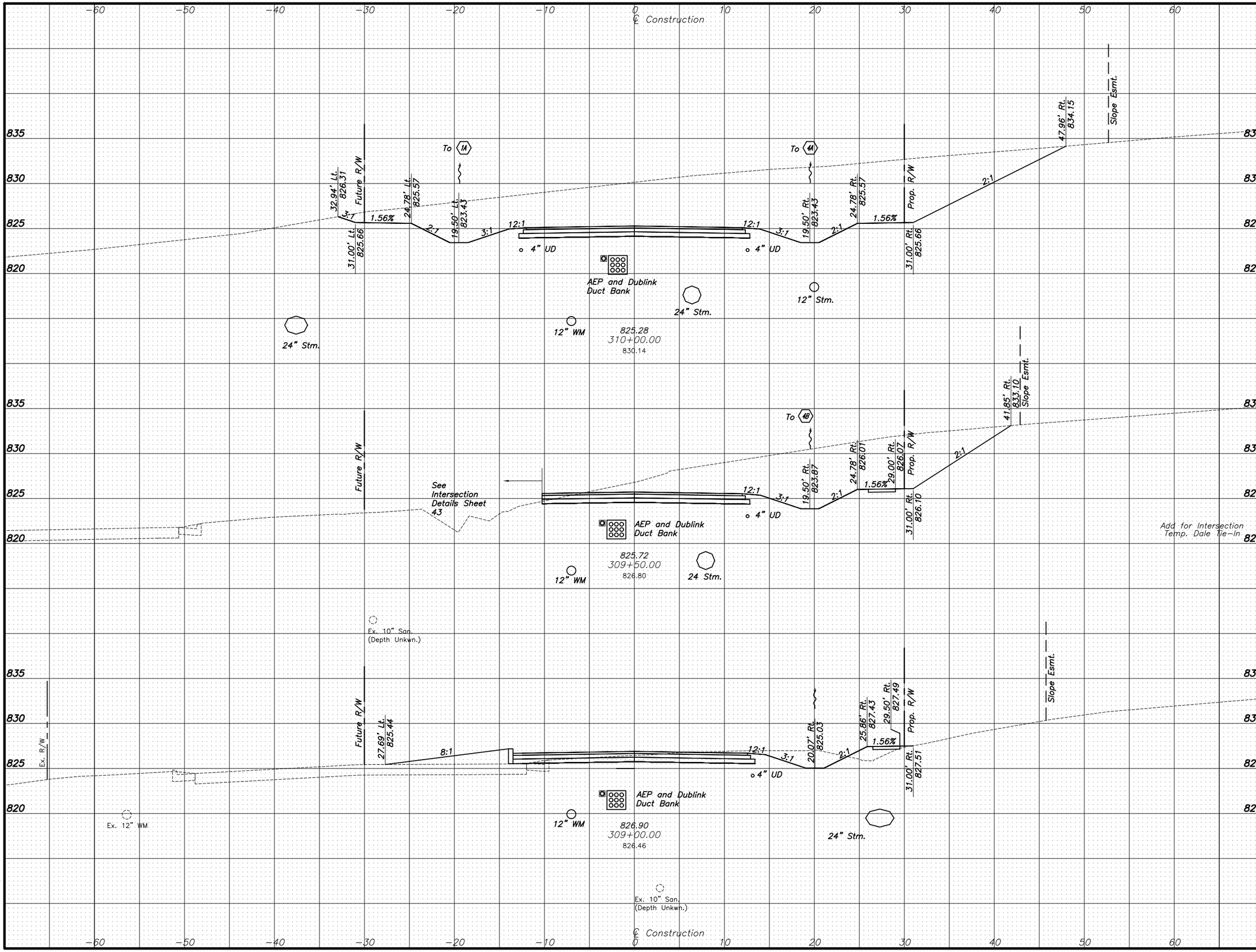

	End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
	404	1		
			558	1
	198	0		
			62	1
			256	55
	78	60		
			102	58
Sheet Total			978	116

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER
STA 309+00 TO STA 310+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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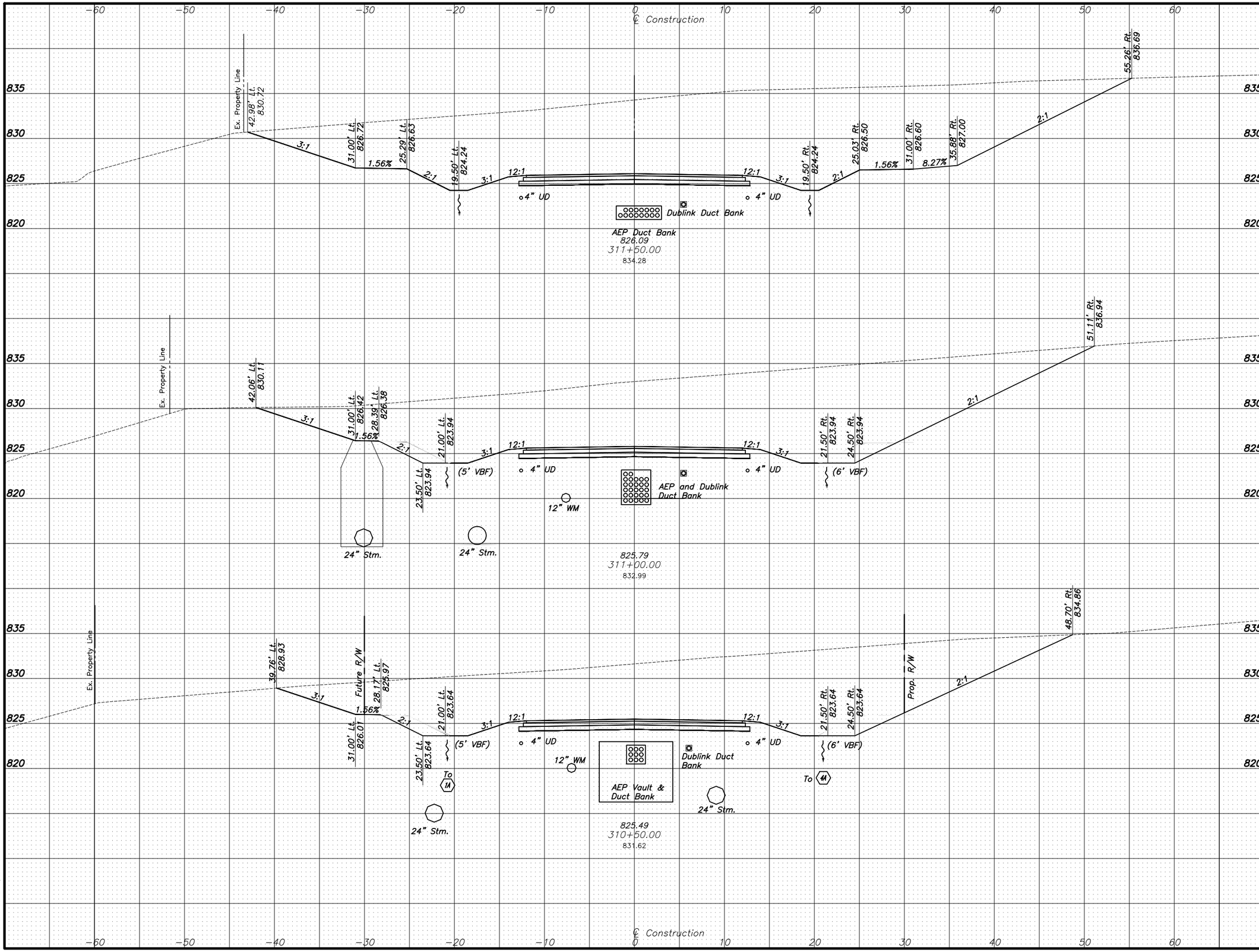

End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
708	1		
		1220	1
609	1		
		1056	1
531	1		
		866	1
Sheet Total		3142	4

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER
STA 310+50 TO STA 311+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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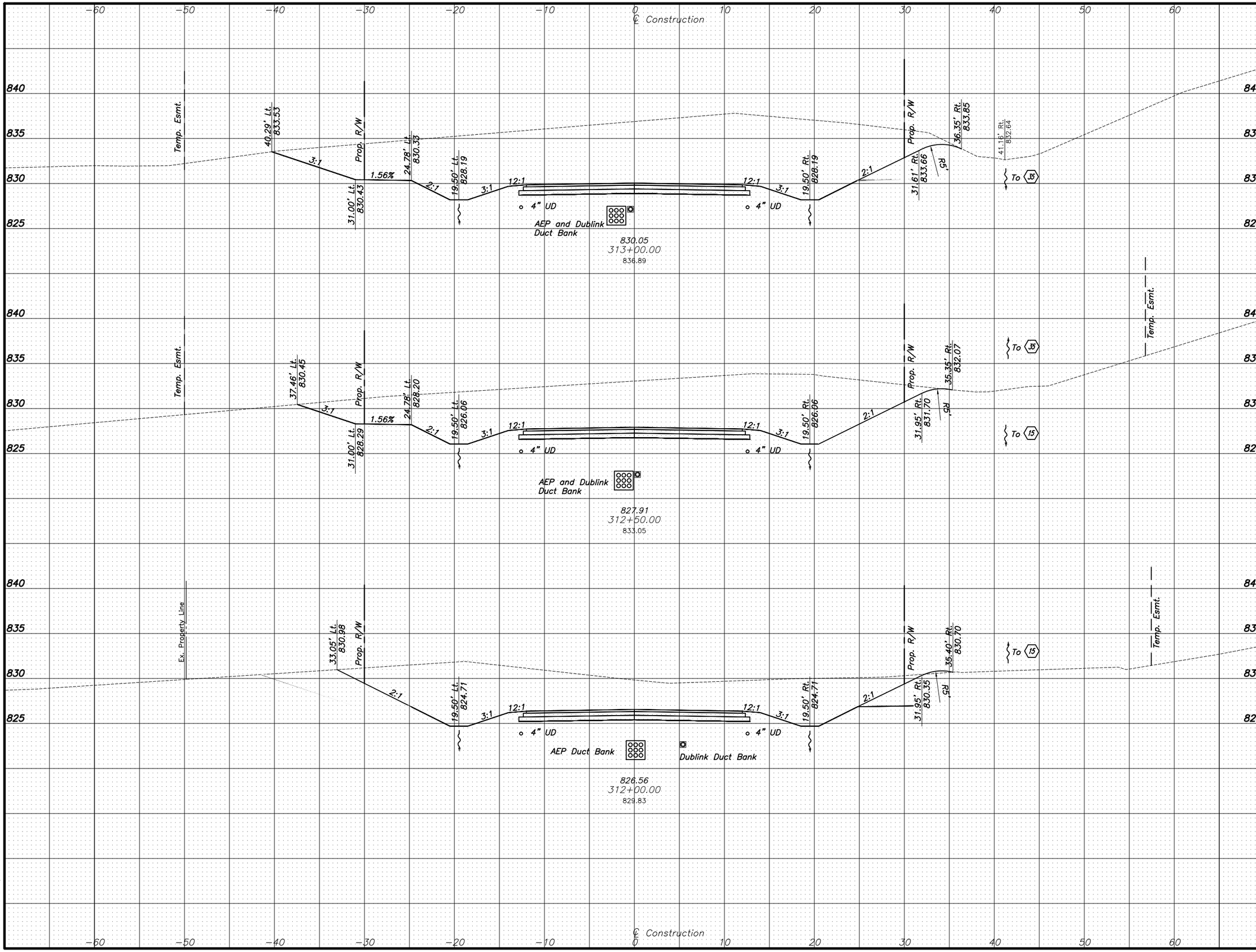

	End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
	456	1		
			751	1
	354	1		
			586	2
	279	1		
			915	2
Sheet Total			2252	5

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER STA 312+00 TO STA 313+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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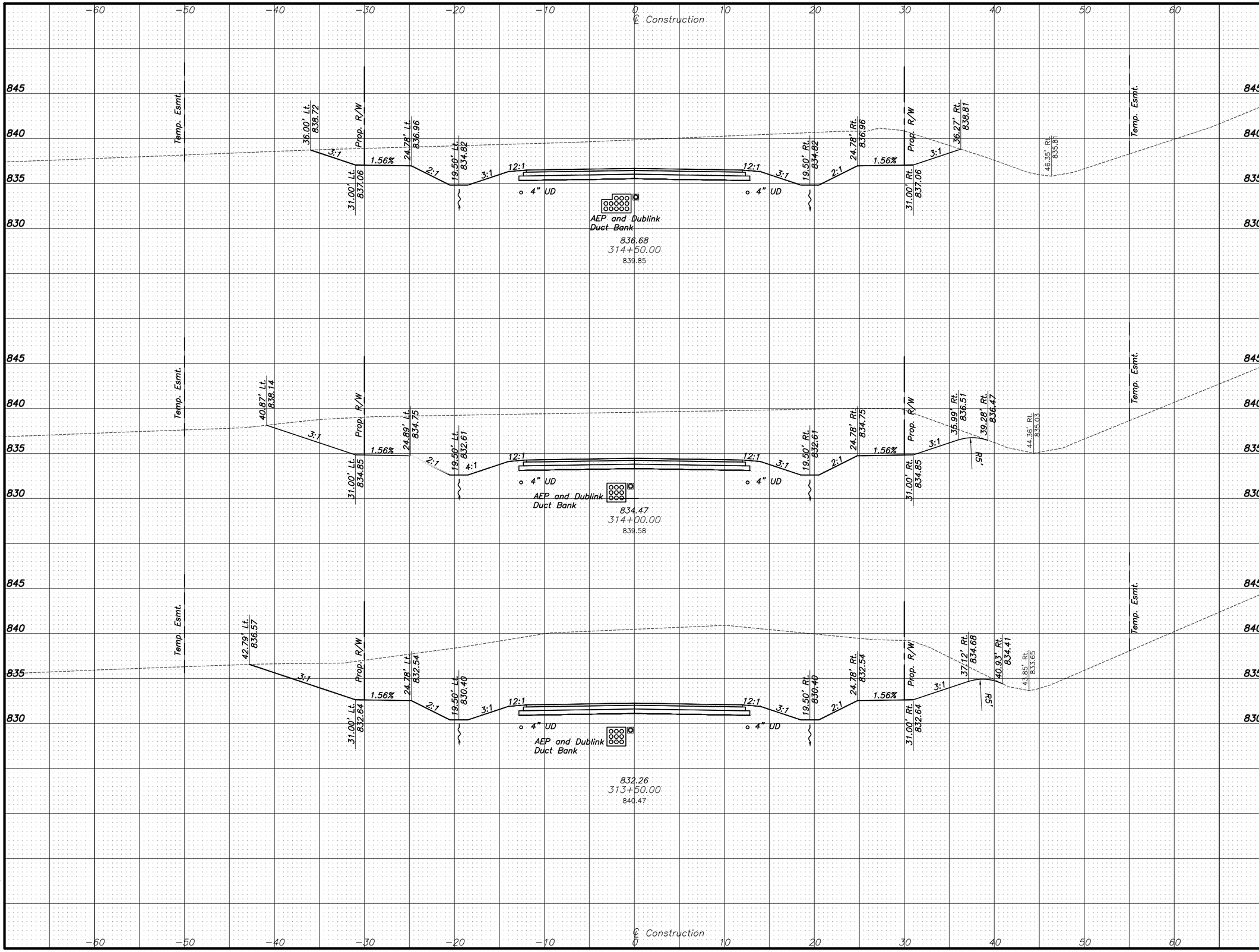

	End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
	266	1		
			622	1
	406	1		
			893	1
	558	1		
			940	1
Sheet Total			2455	3

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER
STA 313+50 TO STA 314+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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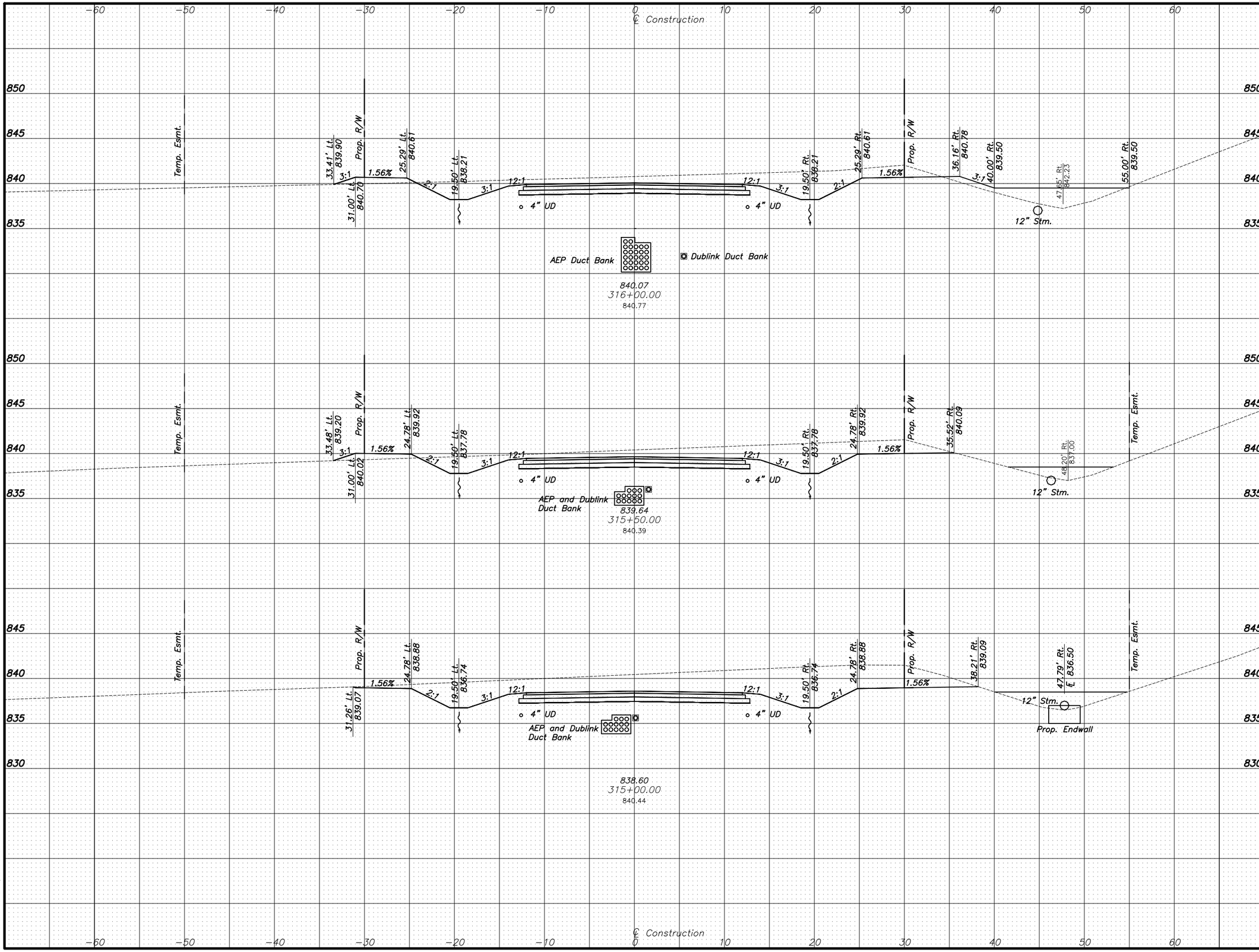

	End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
	101	28		
			192	31
	106	15		
			259	31
	175	18		
			407	17
Sheet Total			858	79

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER
STA 315+00 TO STA 316+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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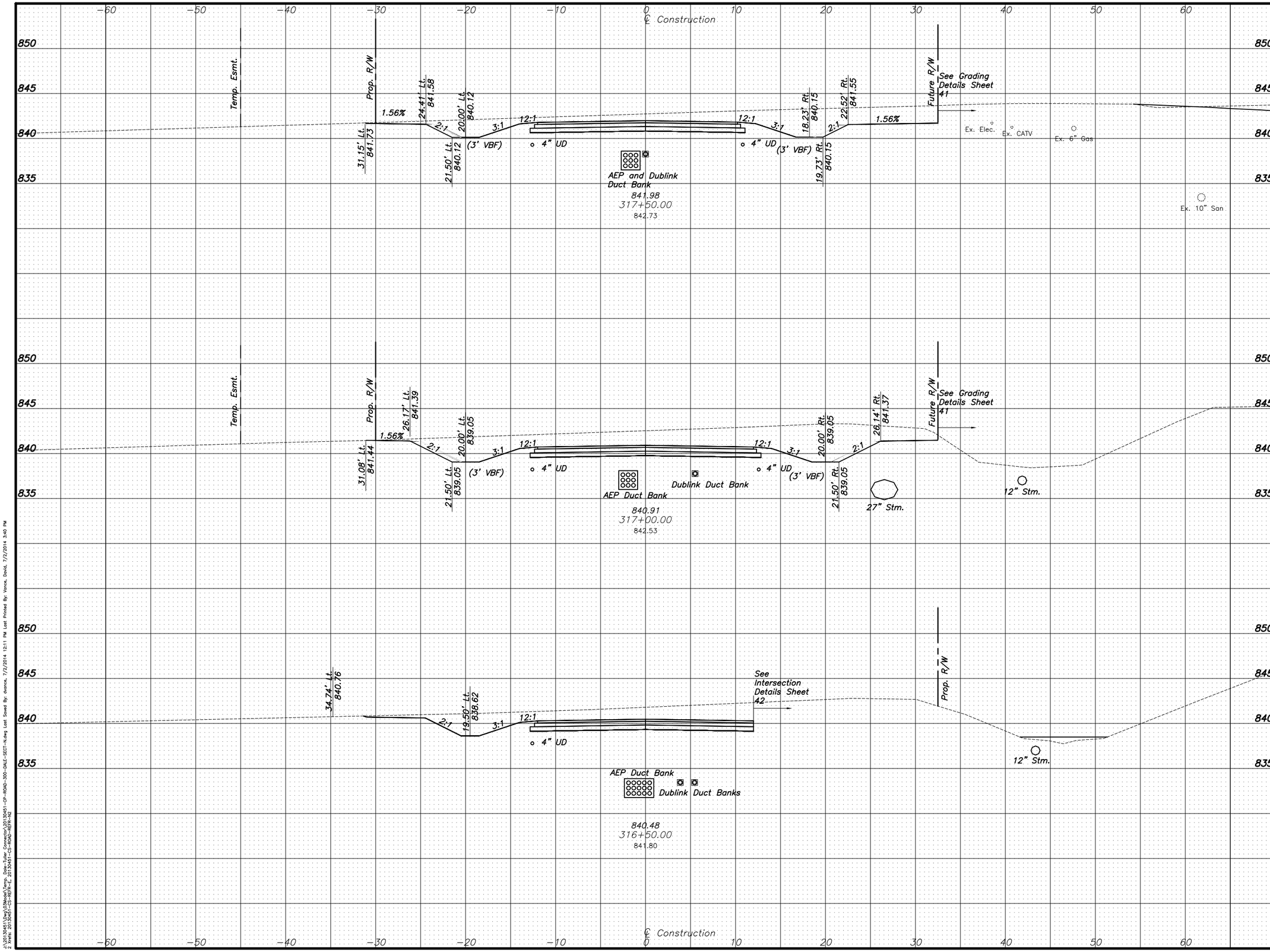
2 Xrefs: 2013045-CS-REFR-E, 2013045-CS-TROAD-REFR-N2



	End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
	111	1		
			246	2
	154	1		
			221	5
	85	0		
			173	30
Sheet Total			640	37

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER
STA 316+50 TO STA 317+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

35
74

z:\2013045\1\Dwg\03Model\Temp. Dale-Tuller Connector\2013045-CP-ROAD-300-DALE-SECT-N.dwg Last Saved By: dvance, 7/2/2014 12:11 PM Last Printed By: Vance, David, 7/2/2014 3:40 PM
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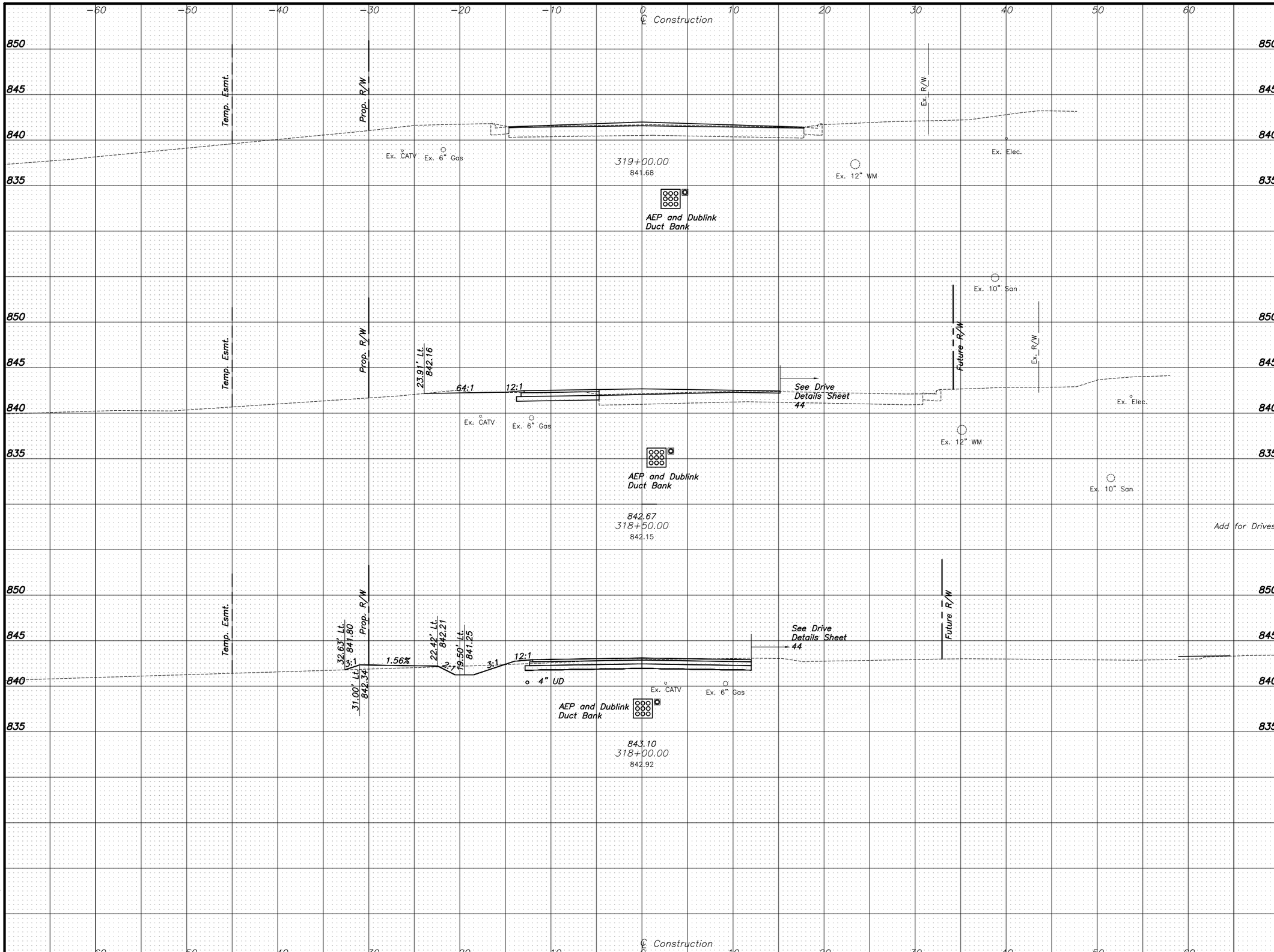

	End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
	3	0		
			13	0
	11	0		
Add for Drives			51	0
			37	4
	29	4		
			130	4
Sheet Total			231	8

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - DALE-TULLER STA 318+00 TO STA 319+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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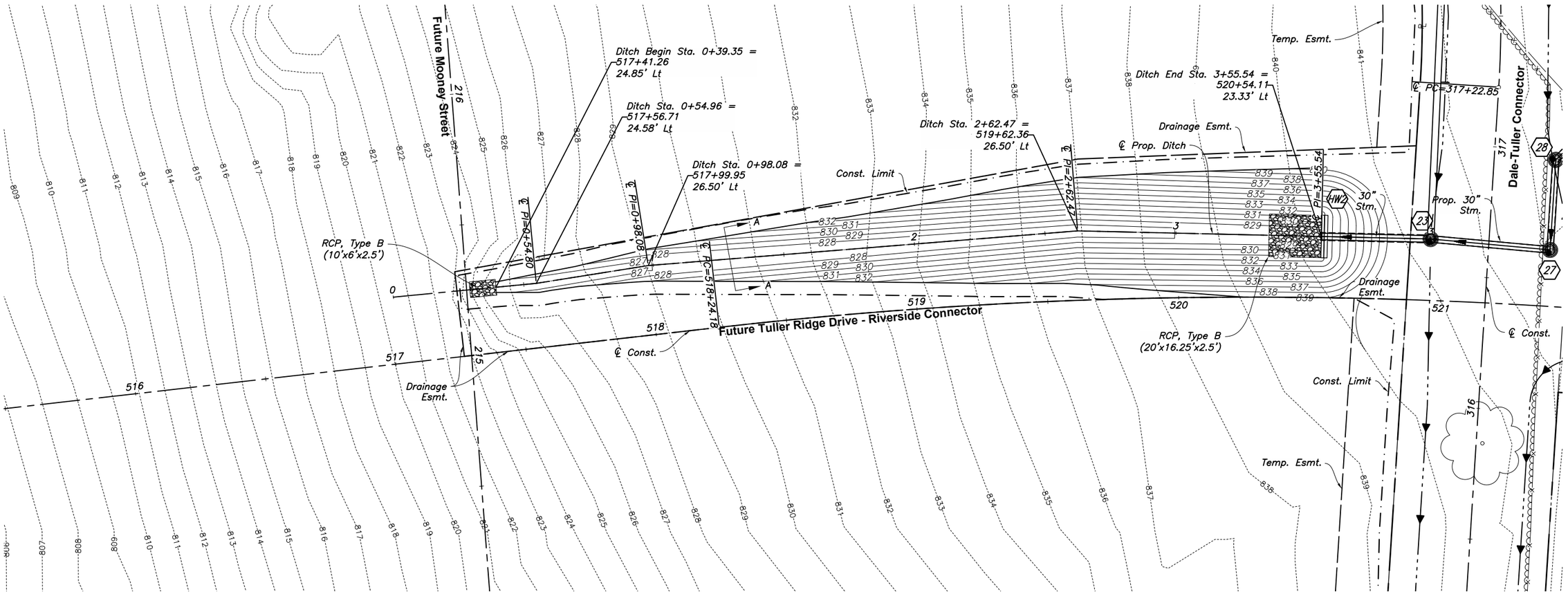
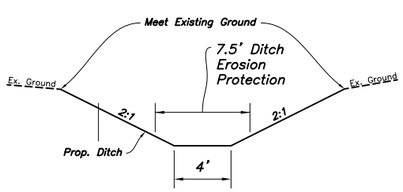
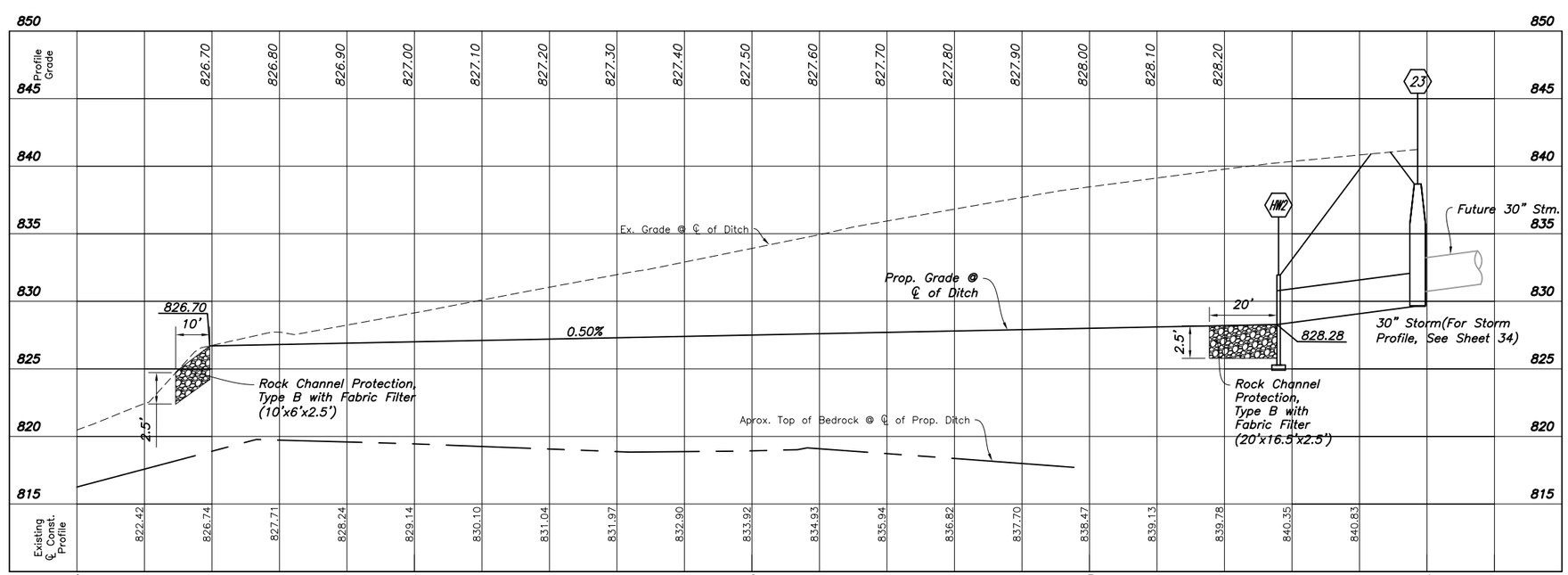




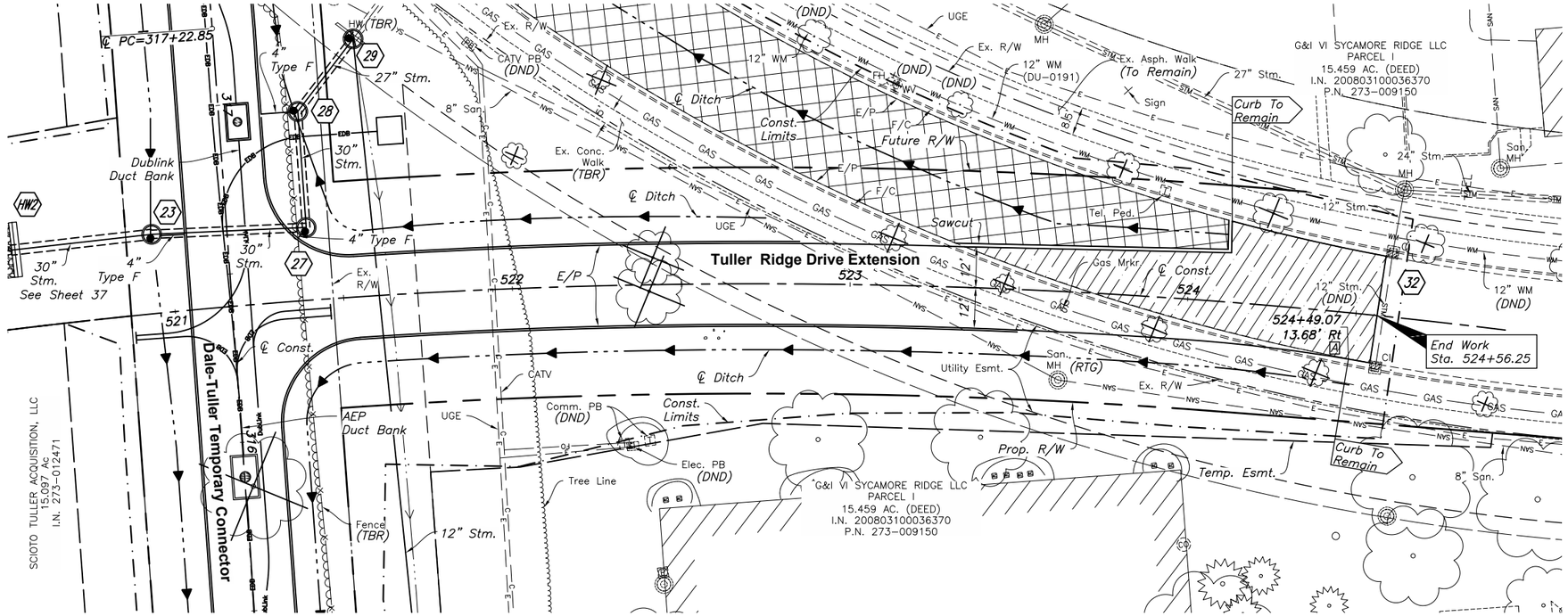
Section "A-A"
Not to Scale

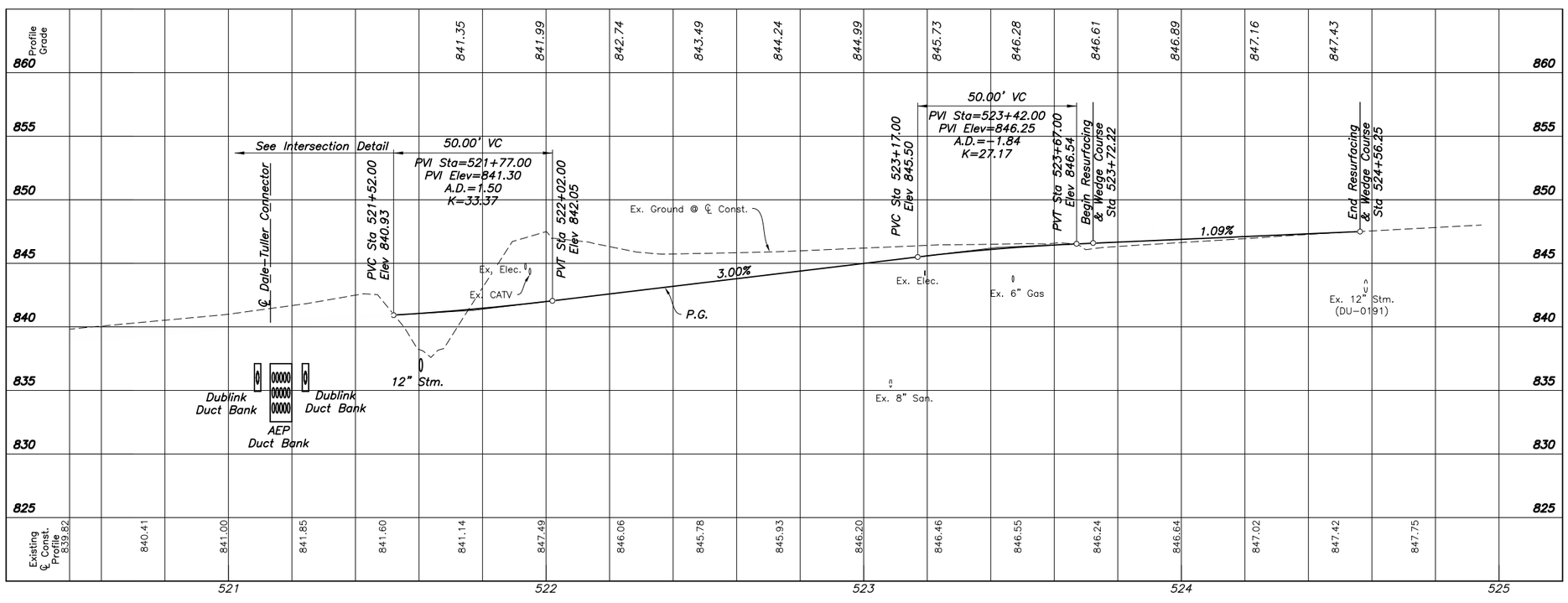


CALCULATED MJS
CHECKED MRB

STORM SEWER OUTLET DITCH PLAN AND PROFILE

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR





Tree To Be Removed

Pavement to be Removed

Pavement to be Resurfaced

A Curb reveal shall be tapered from 0" to 6" over 5' for last 5' to remain.

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
3	TYPICAL SECTIONS
39–40	CROSS SECTIONS – TULLER RIDGE
42	INTERSECTION DETAIL
45–46	STORM SEWER PROFILES
52–74	AEP AND DUBLINK PLAN

Vert.: 1 inch = 5 feet
Horiz.: 1 inch = 20 feet

CALCULATED EAM
CHECKED MRB

PLAN AND PROFILE - TULLER RIDGE STA. 520+50 TO STA. 524+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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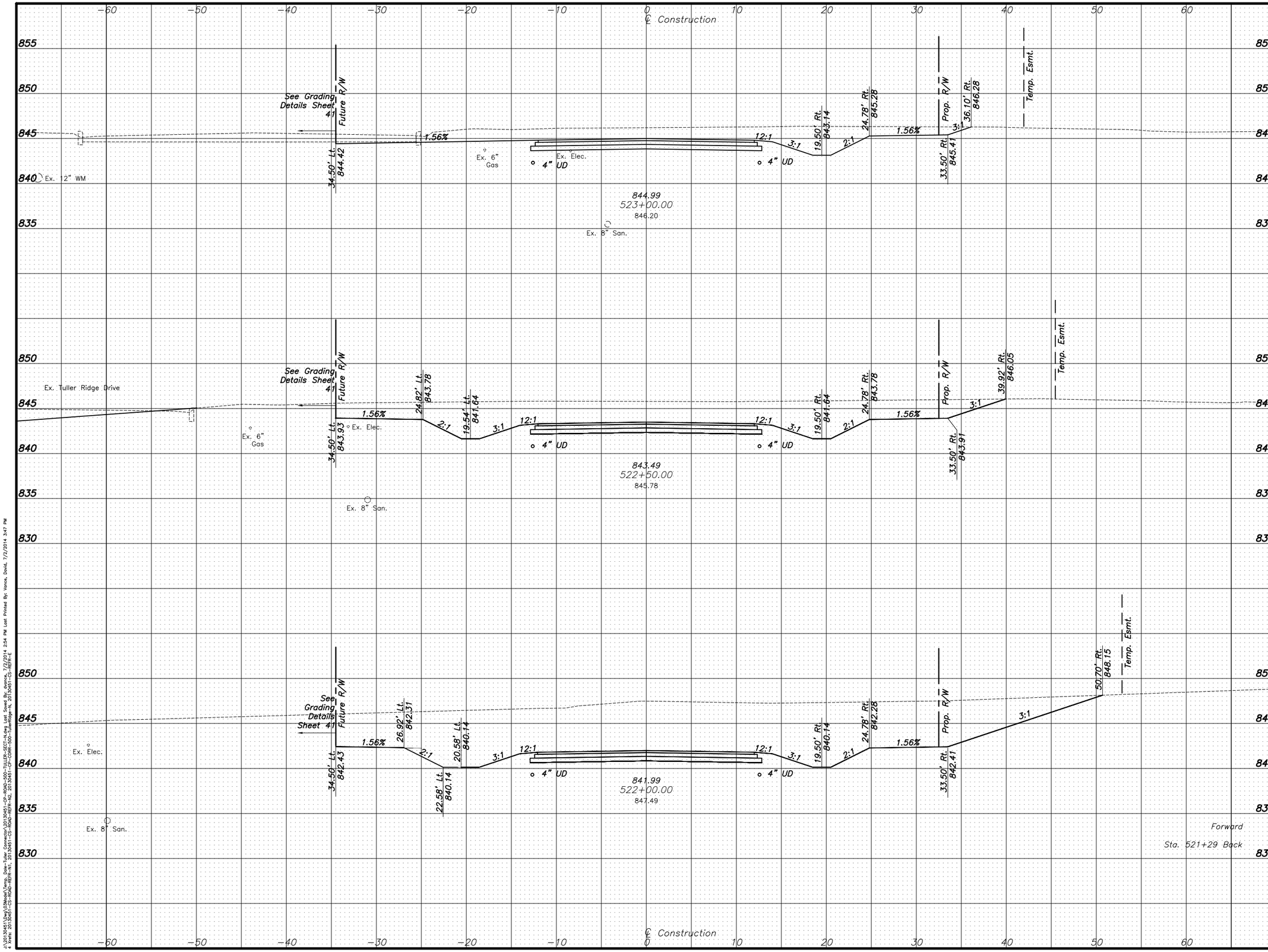

	End Area		Volume	
	Cut (Sq.Ft.)	Fill (Sq.Ft.)	Cut (Cu.Yd.)	Fill (Cu.Yd.)
	116	1		
			309	1
	218	1		
			604	1
	434	1		
			1196	0
Forward	1455	0		
Sta. 521+29 Back	0	0		
Sheet Total			2140	2

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS
STA 522+00 TO STA 523+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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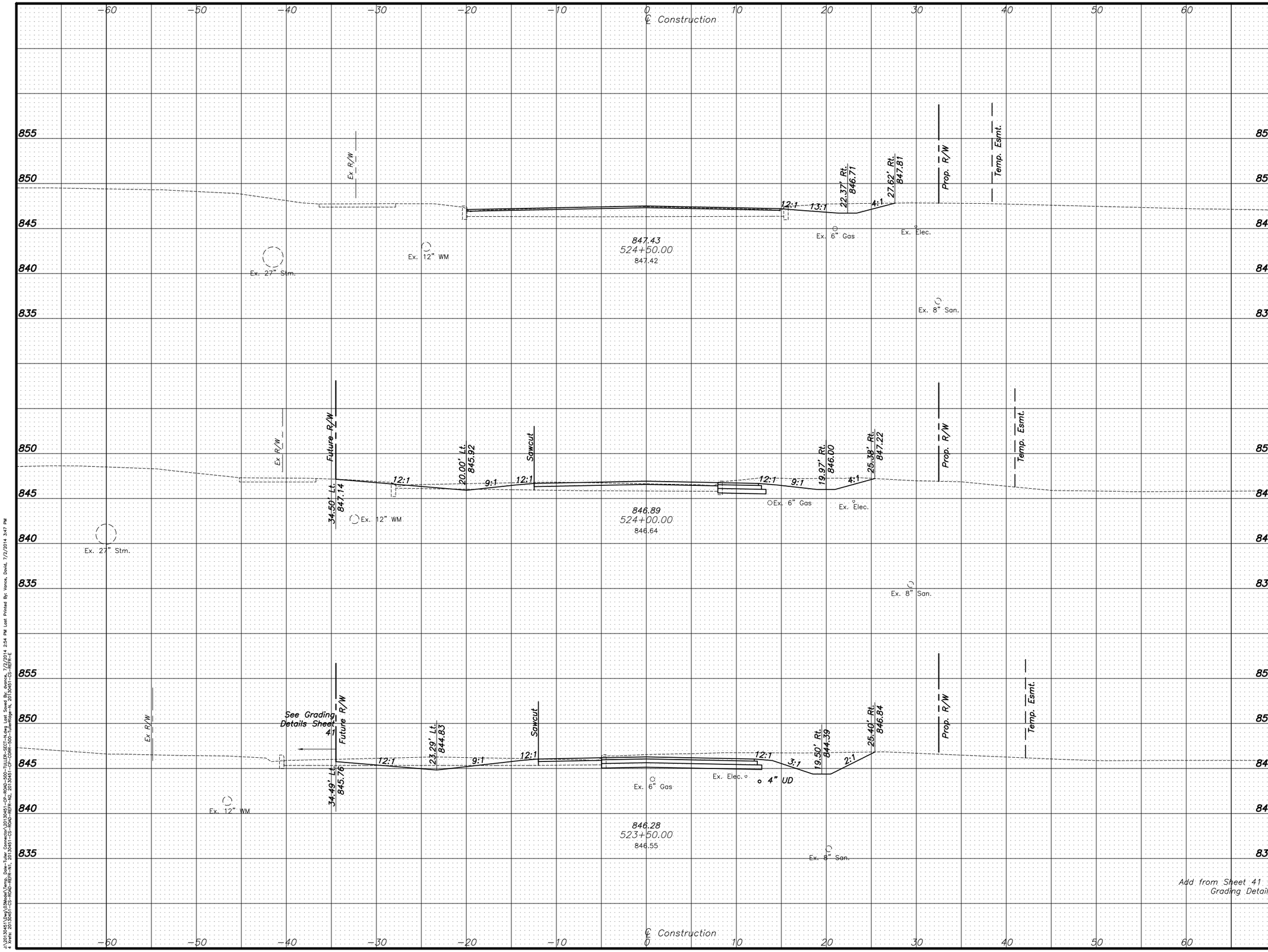

	End Area Cut (Sq.Ft.)	End Area Fill (Sq.Ft.)	Volume Cut (Cu.Yd.)	Volume Fill (Cu.Yd.)
	13	1		
			54	5
	34	4		
			95	11
	69	9		
			172	8
Add from Sheet 41 – Grading Details			262	111
Sheet Total			583	135

Horz. & Vert.: 1 Inch = 5 feet

CALCULATED MJS
CHECKED MRB

CROSS SECTIONS - TULLER RIDGE
STA 523+50 TO STA 524+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

40
74

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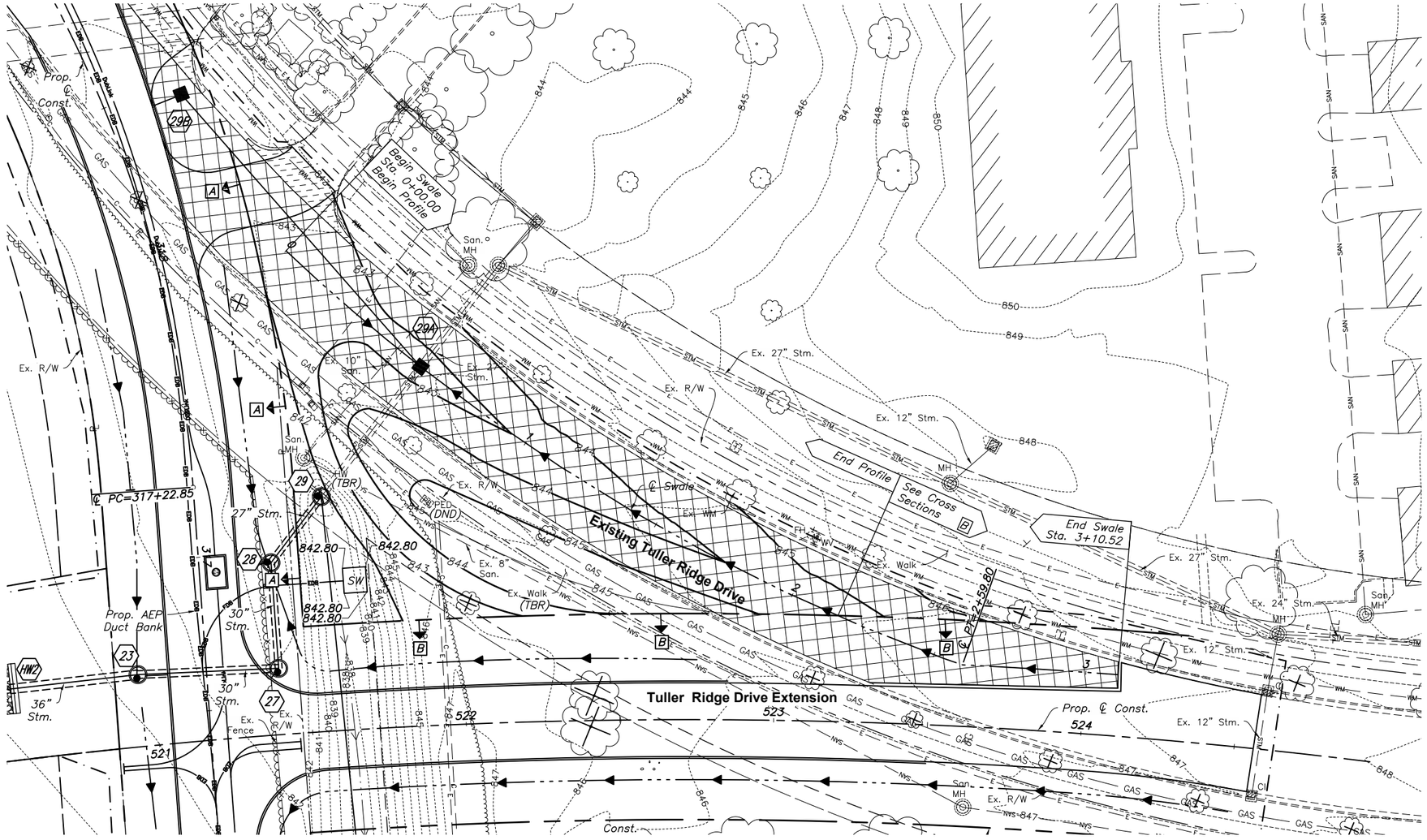
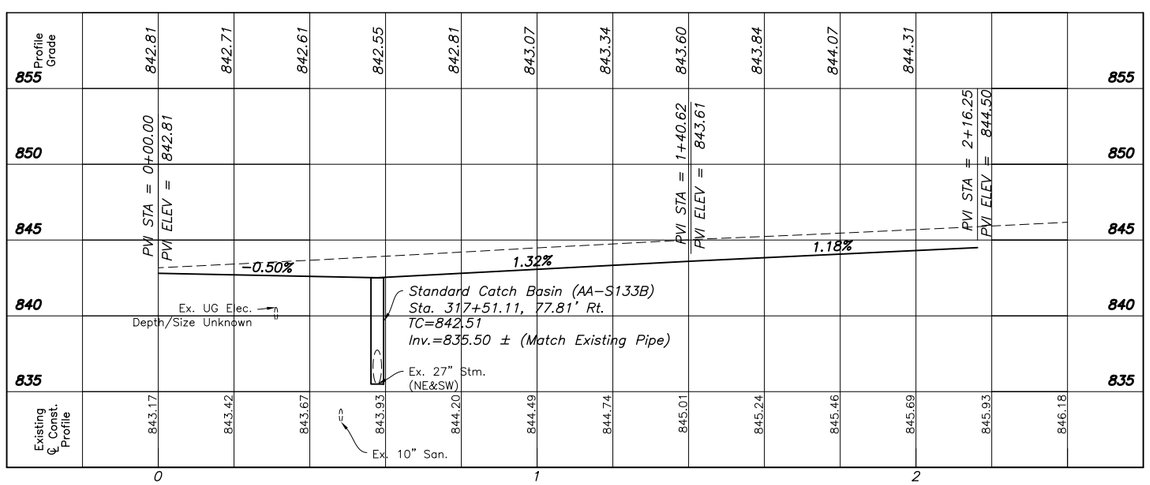


A See Cross Section Sheets 29–36 for grading details.

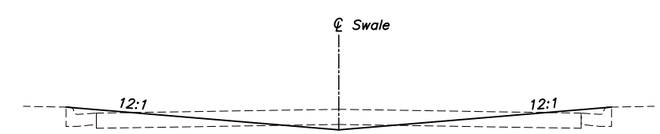
B See Cross Section Sheets 39–40 for grading details.

Earthwork Quantities carried to Cross Sections – Sheet 40



SWALE PROFILE

Pavement to be Removed



Typical Section

Sta. 0+00.00 to Sta. 2+16.25
Not to Scale

CALCULATED MJS
CHECKED MRB

GRADING DETAIL

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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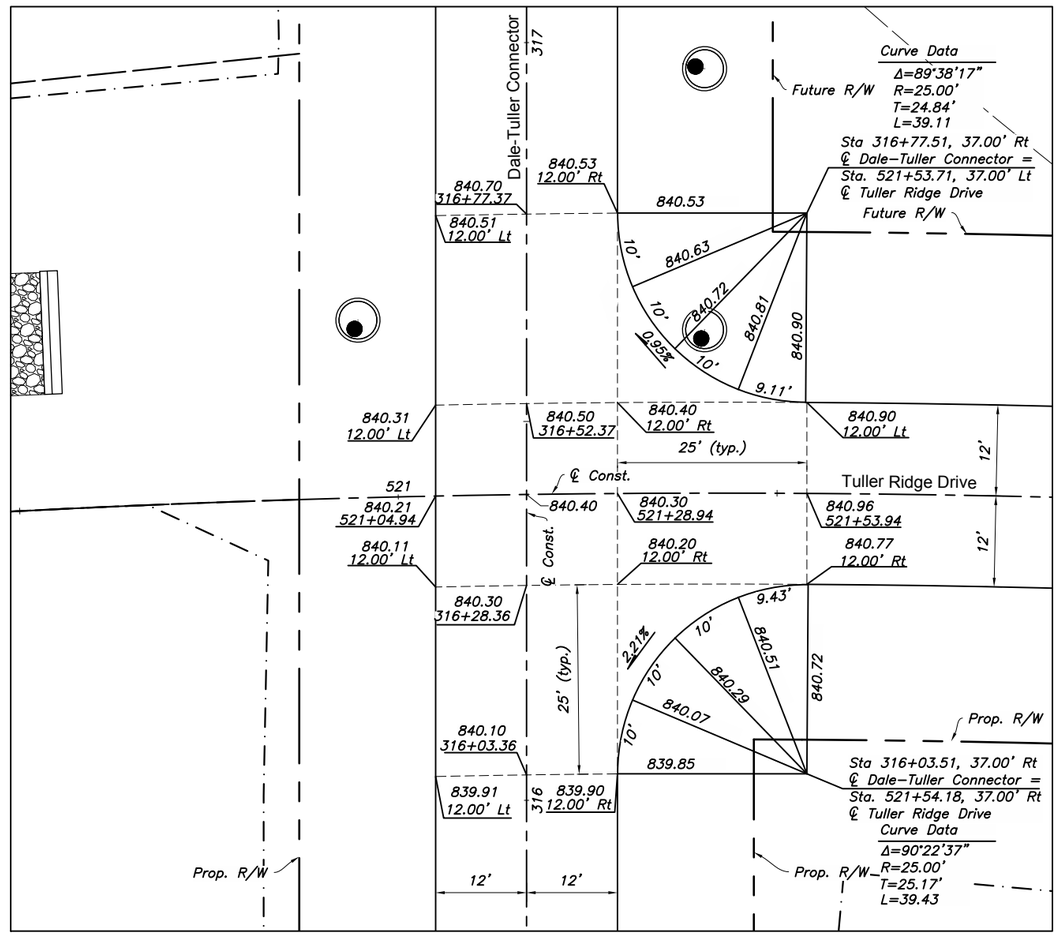

INTERSECTION DETAIL AT TEMPORARY DALE-TULLER CONNECTOR AND TULLER RIDGE DRIVE

Scale: 1"=10'

LEGEND

XXX.XX	Proposed Elevations
(XXX.XX)	Existing Elevations (F/C)
ME	Match Existing
HP	High Point
LP	Low Point

PAVEMENT DETAIL NOTES
Elevations are to the edge of pavement.
Curve Data is calculated at the edge of pavement

CALCULATED MJS
CHECKED MRB

INTERSECTION DETAIL

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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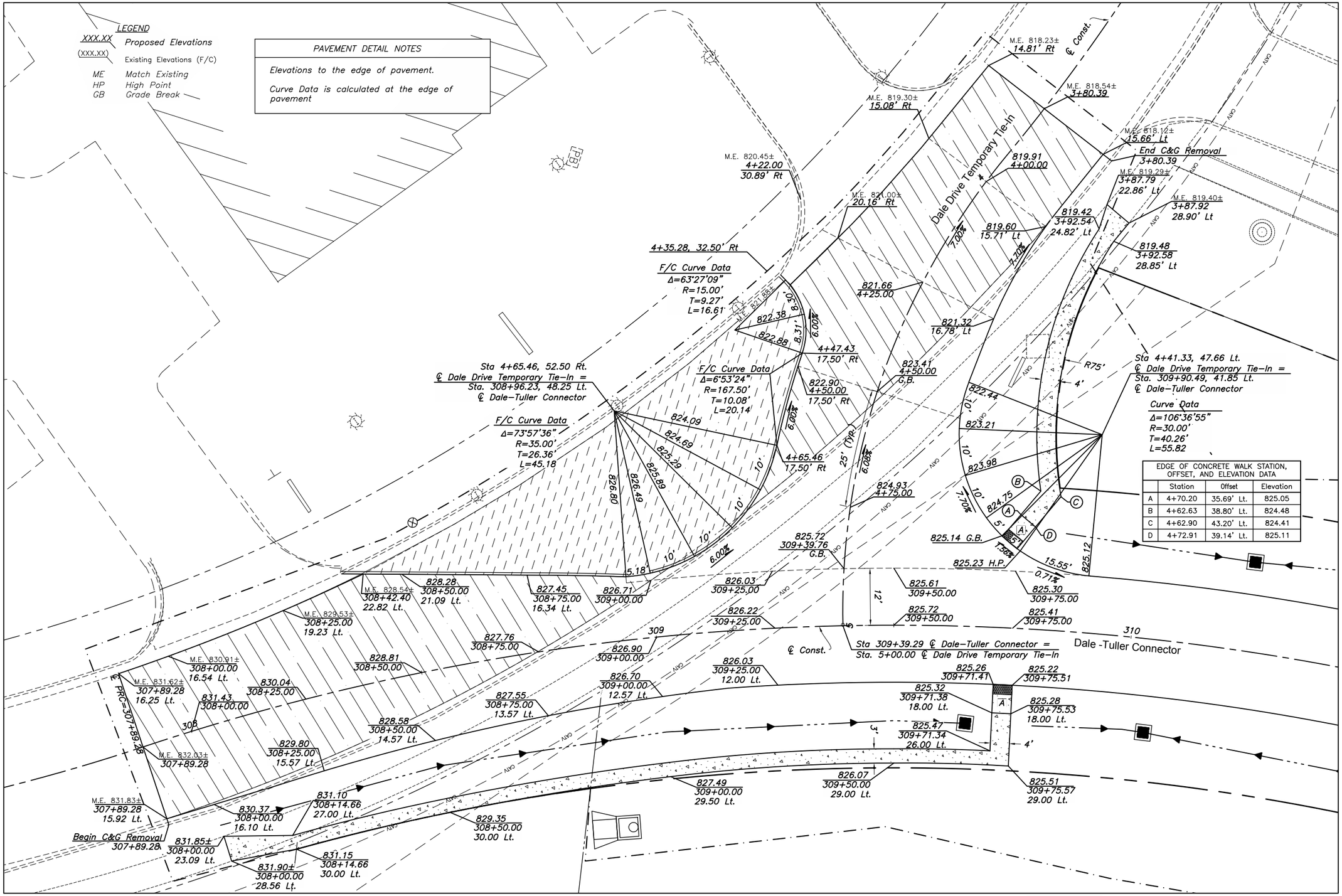

EDGE OF CONCRETE WALK STATION, OFFSET, AND ELEVATION DATA			
	Station	Offset	Elevation
A	4+70.20	35.69' Lt.	825.05
B	4+62.63	38.80' Lt.	824.48
C	4+62.90	43.20' Lt.	824.41
D	4+72.91	39.14' Lt.	825.11

INTERSECTION DETAIL AT DALE-TULLER CONNECTOR
AND TEMPORARY DALE DRIVE TIE-IN
Scale: 1"=10'

CALCULATED EAM
CHECKED MRB

INTERSECTION DETAIL

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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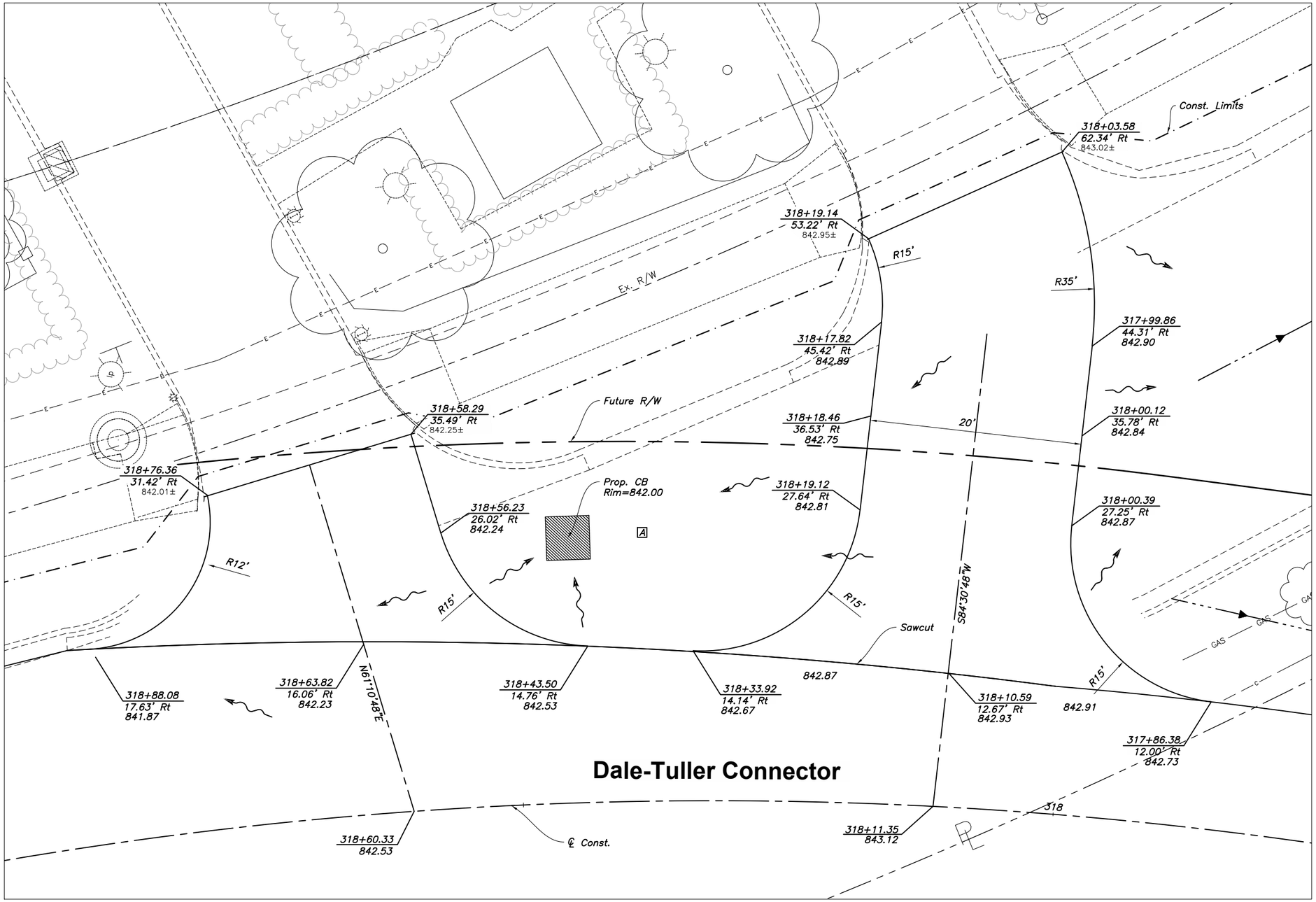

DRIVE DETAIL AT DALE-TULLER CONNECTOR

Sycamore Ridge Apartments
Scale: 1"=5'

A Grade to Drain

CALCULATED JAG
CHECKED MRB

DRIVE DETAIL

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY CONNECTOR

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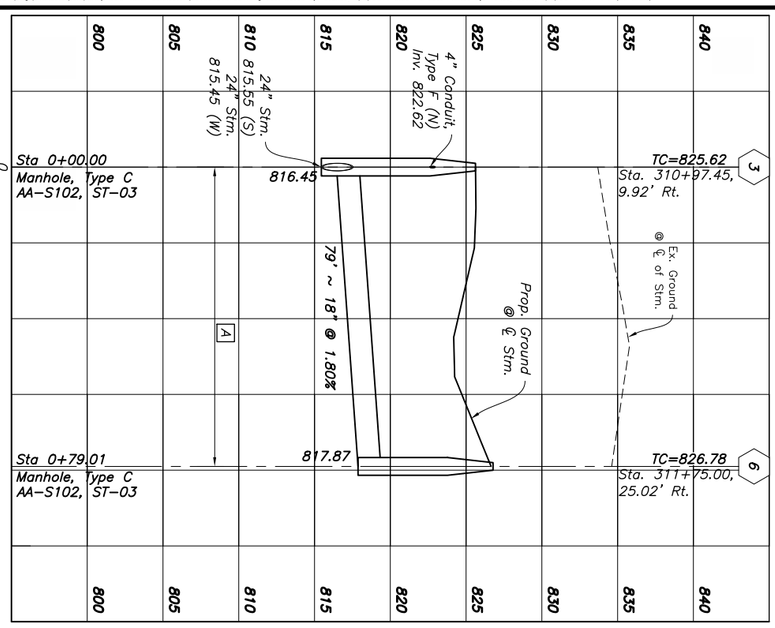
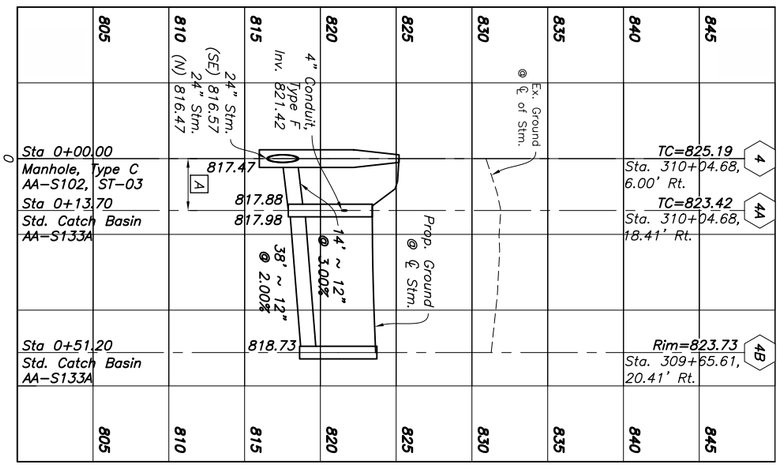
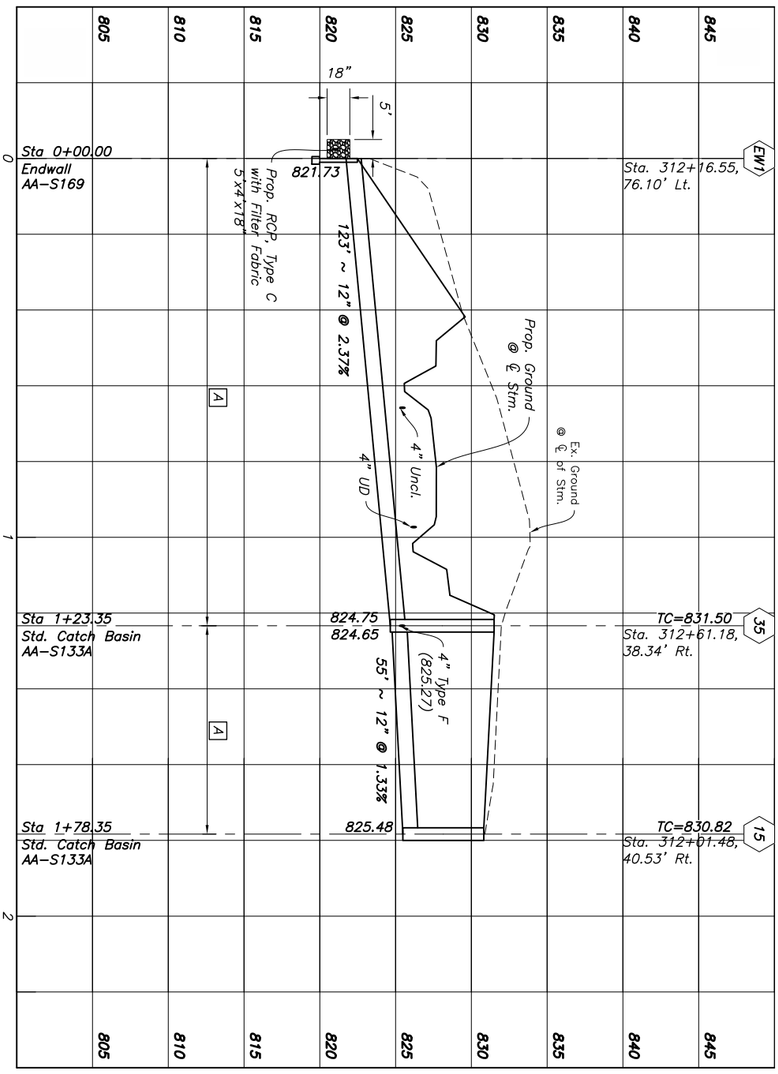
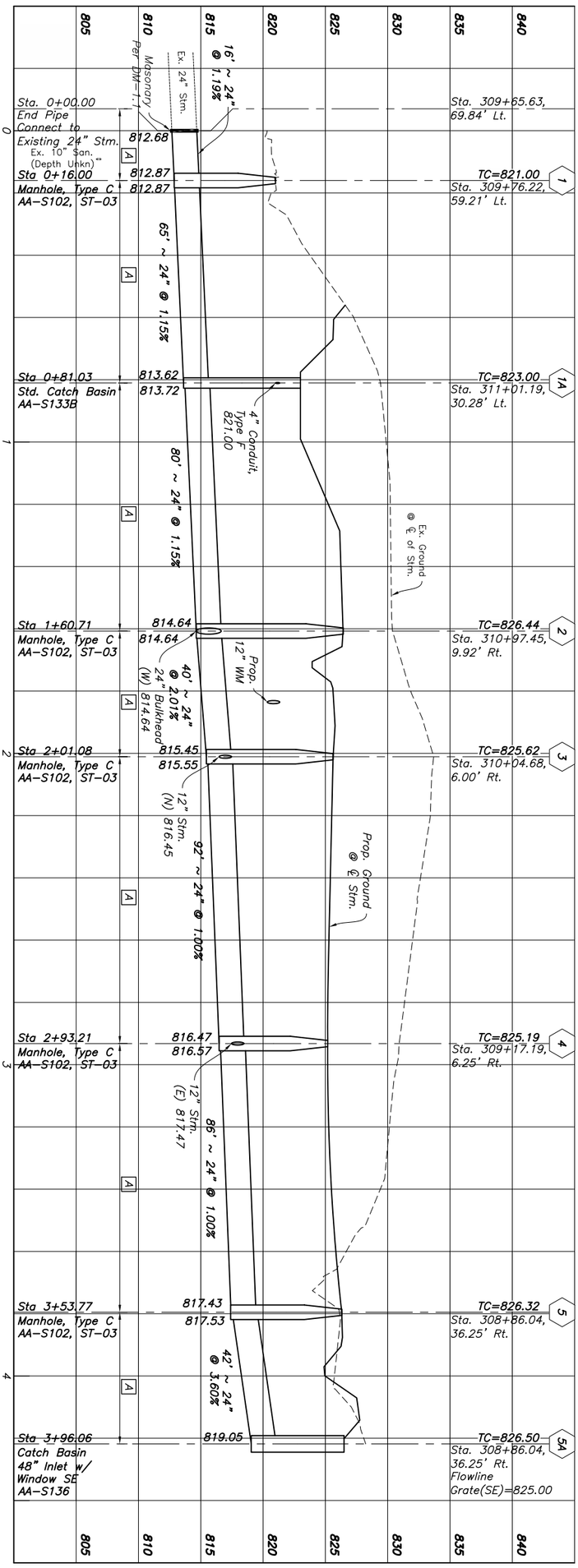




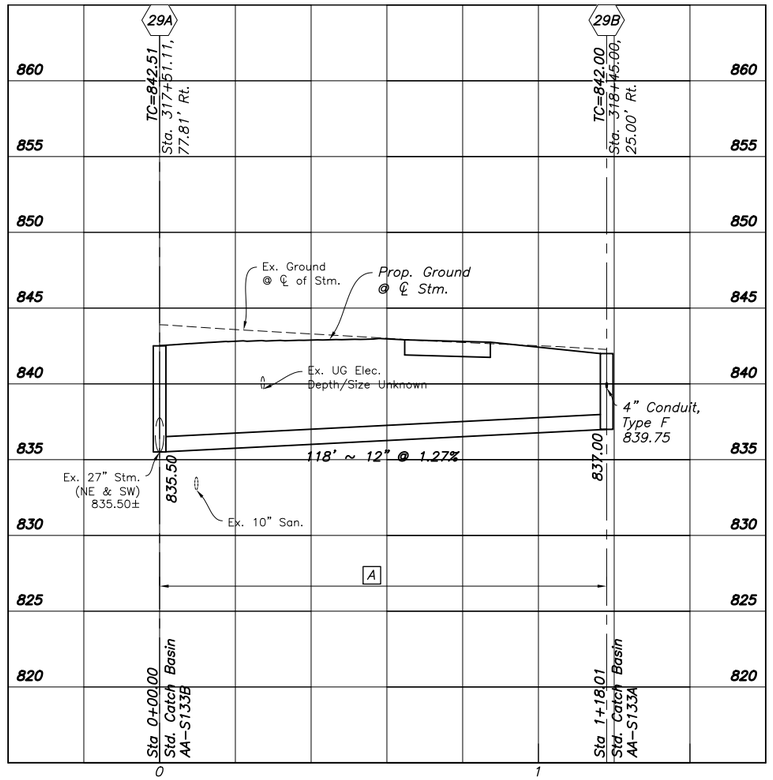


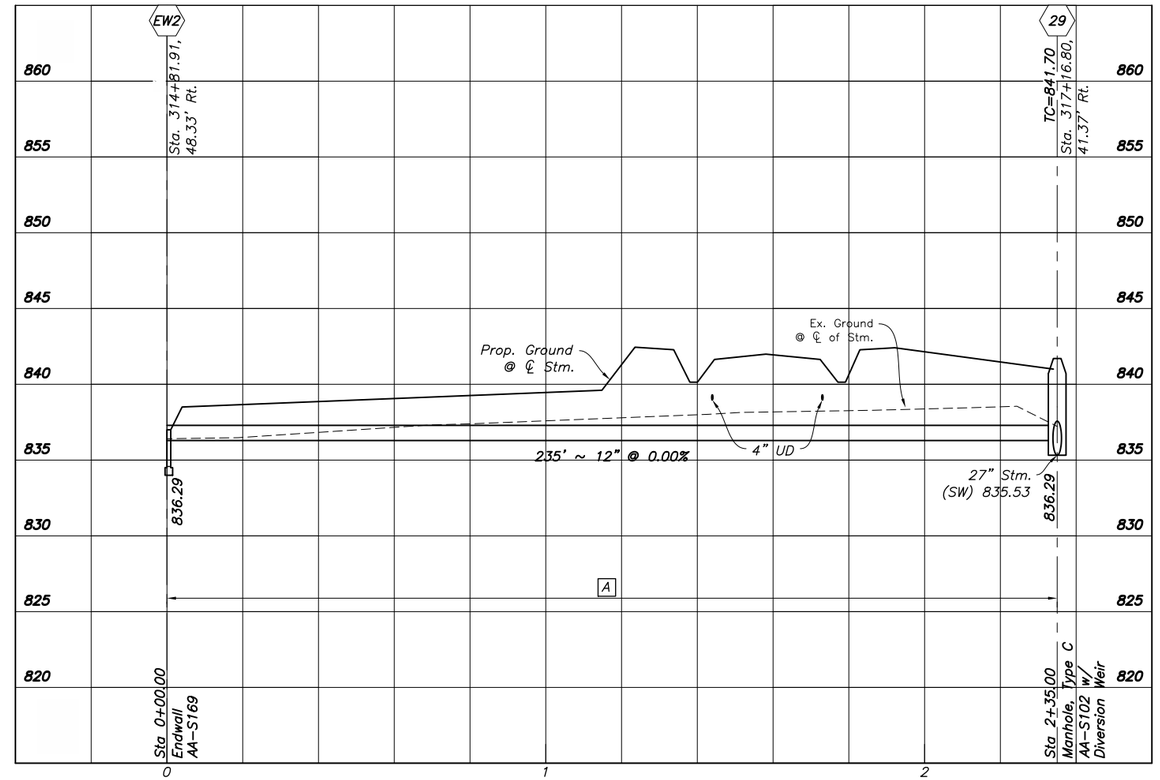


A Item 912 Compacted Granular Material

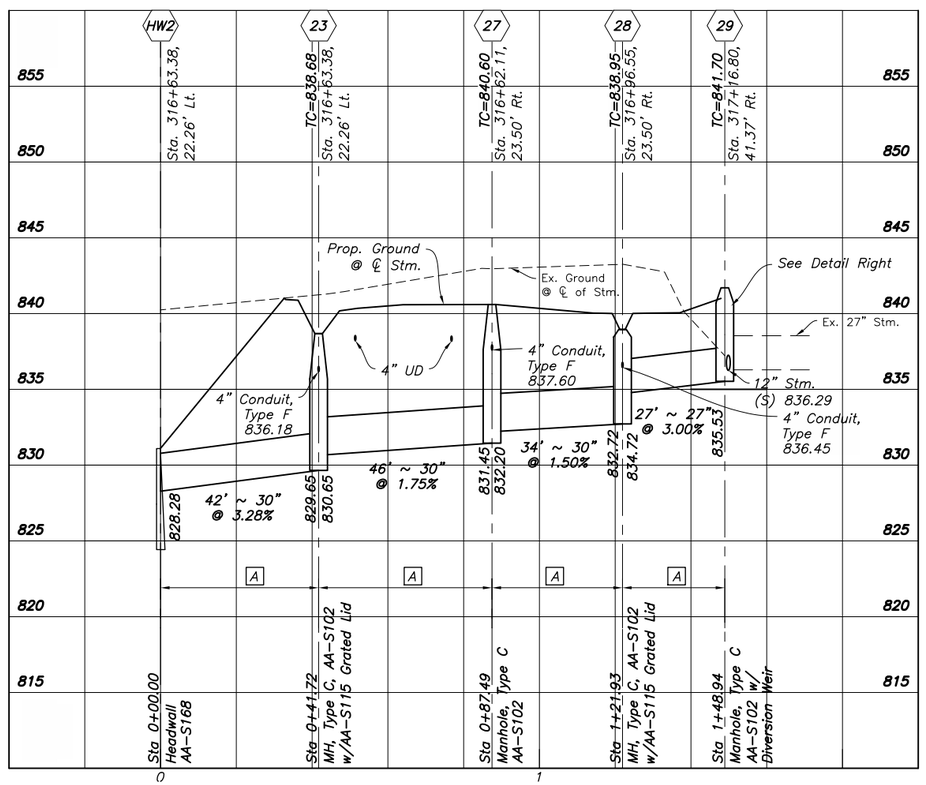
45 / 74	DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR	STORM SEWER PROFILES	CALCULATED EAM / CHECKED MRB

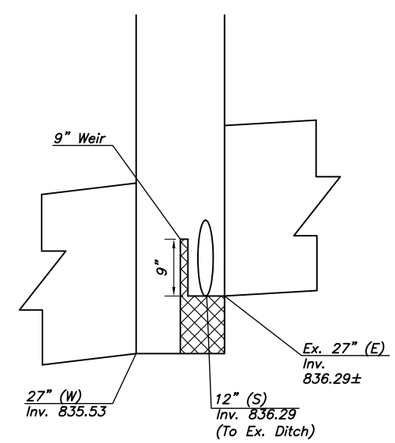
Vert.: 1 inch = 5 feet
Hori: 1 inch = 20 feet





A Item 912 Compacted Granular Material





Structure
29 Detail
Not to Scale

Note: Weir to be fabricated with structure.

CALCULATED EAM
CHECKED MRB

Vert: 1 Inch = 5 feet
Horz: 1 Inch = 20 feet

STORM SEWER PROFILES

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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CITY OF DUBLIN WATER MAIN NOTES

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

All public water pipe with a diameter 3 inches to 8 inches shall be Ductile Iron, Class 53. Public water pipe 12 inches in diameter or larger shall be Ductile Iron, Class 54. Public water pipe 20 inches in diameter or larger may be prestressed concrete pipe. Private water pipe shall meet the approval of the City of Columbus Division of Water prior to approval of the construction drawings.

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

Public water lines shall be disinfected by the City of Columbus Division of Water. Requests for water line chlorination shall be made through the City of Dublin Division of Engineering. The cost for chlorination shall be paid for by the Contractor.

All water lines shall be disinfected according to Item 801.15 of the Standard specifications. Special attention is directed to applicable sections of American Water Works Association specification C–651, particularly for flushing (Section 5) and for chlorinating valves and fire hydrants (Section 7). Pressure testing shall be performed in accordance with Section 801.14 of the City of Columbus Construction and Material Specifications. When water lines are ready for disinfection, the City of Dublin shall submit two (2) sets of "as–built" plans, and a letter stating that the water lines have been pressure tested and need to be disinfected, to the City of Columbus, Division of Water. The Contractor shall be responsible for all costs associated with the disinfection of all water lines construction per this plan. Pressure testing shall be performed in accordance with Section 801.12 of the City of Columbus Construction and Material Specifications.

The Contractor shall paint all fire hydrants according to City of Dublin standards. The cost of painting fire hydrants shall be included in the contract unit price for fire hydrants.

No water taps or service connections (e.g., to curb stops or meter pits) may be issued until adjacent public water lines serving the construction site have been disinfected by the City of Columbus Division of Water and have been accepted by the City Engineer. A tap permit for each water service must be obtained from the City of Dublin and the City of Columbus Division of Water before making any taps into public water lines.

The Contractor shall notify the City of Columbus Division of Water at 645–7788 and the City of Dublin Division of Engineering at least 24 hours before tapping into existing water lines.

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

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

The Contractor shall give written notice to all affected property owners at least 1 working day but not more than 3 working days prior to any temporary interruption of water service. Interruption of water service shall be minimized and must be approved by the City Engineer.

Water meters shall be installed inside proposed structures unless a meter pit installation is approved by the City of Columbus Division of Water. Meter pits must conform to standard drawings L–7103, A&B for 5/8" through 1" meters or L–6317, A, B, C&D for 1–1/2" or larger meters.

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

If the top of the operating nut of any valve is greater than 36 inches below finished grade, an extension stem shall be furnished to bring the top of the operating nut to within 24 inches of finished grade elevation.

All water lines shall be placed at a minimum depth of 4 feet measured from top of finished grade to top of water line. Water lines shall be set deeper at all points where necessary to clear existing or proposed utility lines or other underground restrictions by a minimum of 18 inches.

CITY OF COLUMBUS WATER NOTES

WATER MAIN GENERAL NOTES

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.

No person shall begin construction or installation of a public water main until plans have been approved by the State of Ohio Environmental Protection Agency (OEPA).

The Contractor shall obtain the proper hydrant permit(s), and pay any applicable fees, for any approved hydrant usage deemed necessary for work under this improvement. Permits may be obtained through the Division of Water Permit Office (645–7330). The contractor shall adhere to all rules & 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, and any water main 12–inch and larger must be properly pigged, in accordance with section 801.13 of the City of Columbus, Construction and Material Specifications.

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 a written request for chlorination of the mains that need disinfected, three (3) sets of "as–built" plans (full size sheets only), the as–built survey coordinates, water service reports and a pressure test to the City of Columbus, Division of Water. The contractor shall be responsible for all costs associated with the disinfection of all water mains constructed under this plan.

Where indicated on the plans, the existing water main shall be abandoned; and any existing water services off this main shall be transferred to the new water main. Prior to abandonment of the existing water main, the proposed water main shall be pigged (if required), tested, chlorinated and put in service and then the existing water services shall be transferred. The Contractor shall maintain water services to all properties during construction of the new water main and shall notify all customers affected by the transfer of services. To ensure that all existing services are transferred to the new main, no water main shall be abandoned until the new water main has been put in service; all affected water services have been transferred; and the existing water main to be abandoned has been shut down for 24 hours. All visible valve boxes, fire hydrants, and service boxes on the water main to be abandoned, which will no longer be in service, shall be removed. All water mains to be abandoned shall be made water tight. The required surface restoration shall be paid for under the appropriate bid item(s).

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 of 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.

"Survey Coordinates" shall include all material, equipment, and labor necessary to obtain horizontal and vertical (northing, easting, and elevation) survey coordinates for the water main improvements. The survey coordinates shall be obtained for the completed water main construction and shall include all valves, tees, crosses, bends, deflections, plugs, reducers, tapping sleeves, blow offs, chlorination taps, fire hydrants, air releases, curb stops, casing pipe termini, and other fittings. Additional survey coordinates are required on the water main every 500' where no fitting or other water main structure is being installed within that length of the improvement.

All survey coordinates shall be referenced to the applicable County Engineer's Monuments, and shall be based on the North American Datum of 1983 (NAD 83) with the (NSRS2007) adjustment, with further reference made to the Ohio State Plane South Coordinate System, South Zone, with elevations based on the 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.

SPECIAL NOTES

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

All valve boxes, service boxes, and fire hydrants shall be located within the easement area.

No two (2) adjacent fire hydrants shall be taken out of service concurrently.

The Contractor shall coordinate his work such that no water customer will have their service disrupted more than two (2) times throughout the duration of this project.

Only one connection to an existing water line is permitted before disinfection of a new water line has been completed. All other connections must be made after the line has been disinfected. When a 3–inch or larger tap is to occur on a 20–inch or larger water main, the Contractor shall notify the Division of Water Operation Control Center at (614)–645–7168 twenty–four (24) hours in advance of performing the tap.

ESTIMATE OF QUANTITIES FOR WATER MAIN

CMSC Item	Description	Qty	Units
801	6 Inch Water Pipe and Fittings with Type 1 Bedding, with Item 912 Compacted Granular Backfill	25	Lin. Ft.
801	12 Inch Water Pipe and Fittings with Type 1 Bedding, with Item 912 Compacted Granular Backfill	310	Lin. Ft.
801*	Concrete Blocking Class C, Increase or Decrease	50	C.Y.
801*	Ductile Iron Fittings, Increase or Decrease	50	Lbs.
802	6" Valve and Appurtenances	1	Each
802	12" Valve and Appurtenances	2	Each
807	Columbus Standard Heavy Duty Valve Box	2	Each
809	Fire Hydrant, Type A	1	Each
811*	Increase or Decrease in Excavation and Backfill	50	C.Y.
816	8" Water Service Tap Abandoned	1	Each
SPEC	Survey Coordinates	1	L. Sum

NOTES

* Denotes Contingency

Quantities are carried to General Summary.

Quantities are for new water mains only and do not reflect modifications to existing water mains, hydrants, valves, etc.

WATER MAIN SURVEY COORDINATE TABLE

				AS–BUILT		
Sheet No.	Station	Offset	Description	Northing	Easting	℄ Elevation

CALCULATED EAM CHECKED MRB

WATER MAIN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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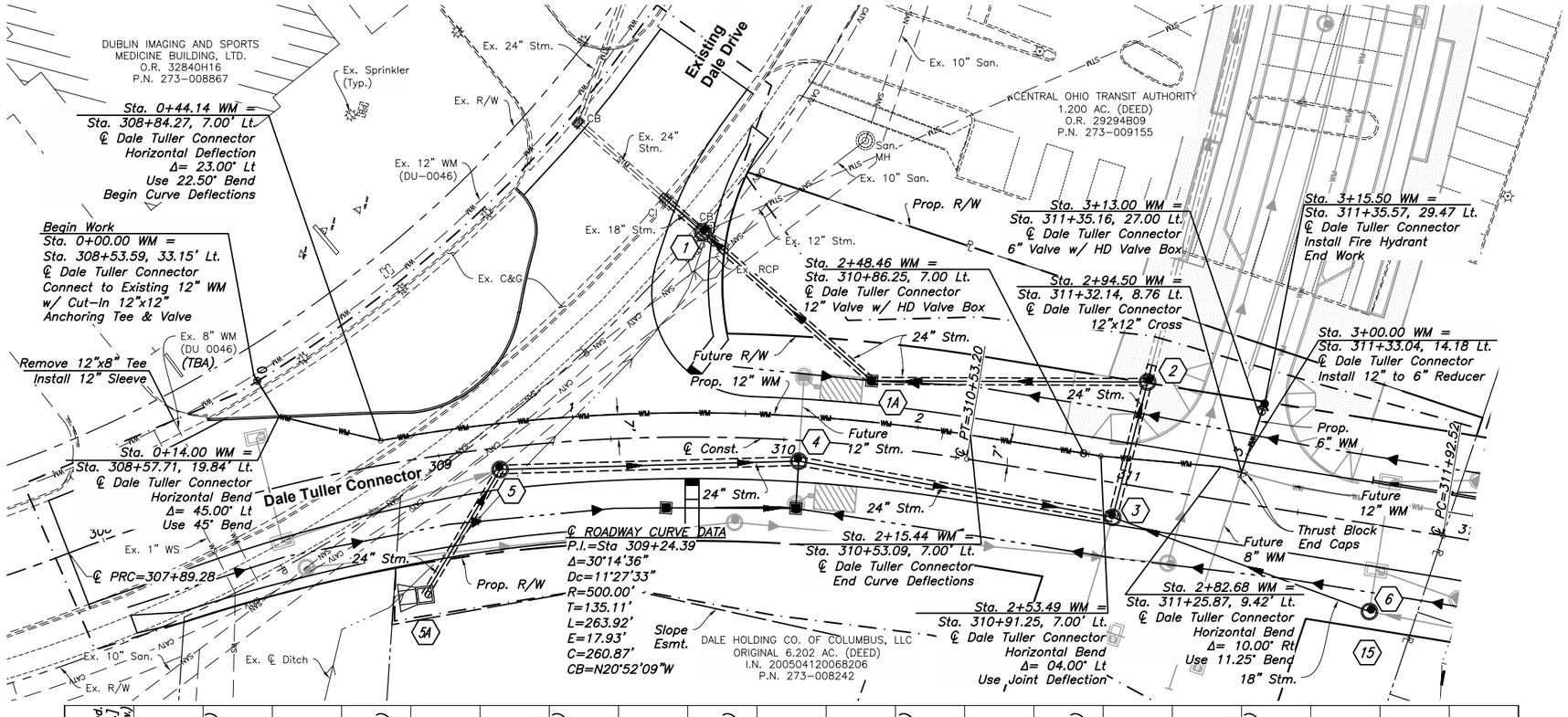


CALCULATED EAM
CHECKED MRB

WATER MAIN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

TRAFFIC CONTROL NOTES

GENERAL
All permanent and existing traffic control shall be the responsibility of the contractor in accordance with the "Ohio Manual of Uniform Traffic Control Devices" (current edition). Copies of which are available from the OHIO Department of Tansportation, Office of Traffic Engineering, 1980 West Broad Street, Columbus, Ohio 43223.

ITEM 630 – GROUND MOUNTED SUPPORT, NO 3 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 has been itemized separately. This item shall be provided and installed by The City of Dublin.

ITEM 630 – 2¼" SQUARE ANCHOR POST, AS PER PLAN
In addition to items 630 and 730, the anchor post provided and installed with the ground mounted sign support shall be as per ODOT SCD TC–41.20, and shall be 48" in length. The anchor shall be 2 1/4–inches square, 12 Ga., with a 2 1/2–inch oversleeve 18–inches long over top of the anchor. This item shall be provided and installed by The City of Dublin.

ITEM 630 – STREET NAME SIGN SUPPORT, AS PER PLAN
The sign posts shall be 2–inch square post, 14 Ga., with die cut knock out holes on one inch centers. (Allied Quick–Punch or approved equal). The anchor shall be 2 1/4–inches square, 12 Ga., 36–inches long with a 2 1/2–inch oversleeve 12–inches long over top of the anchor. All post systems must meet NCHRP 350 crash tests. In addition to these requirements, the bracket which is used to attach the street name sign to the support shall be "Xccessories Squared" model CSB200SQS–Z used in conjunction with aluminum ," Extrusion #WXAT175 or approved equal. The required post, anchor, and bracket system shall be powder coated federal brown (Tiger Drylac RAL 8016 49/66080).

This item shall be provided and installed by The City of Dublin.

ITEM 630 SIGN FLAT SHEET, AS PER PLAN
All new signs will be furnished and installed by The City of Dublin.

ITEM 630 STREET NAME SIGN, AS PER PLAN
All new street name signs will be furnished and installed by The City of Dublin.

TRAFFIC CONTROL ESTIMATE OF QUANTITIES			
ITEM NO.	QUANTITY	UNIT	ITEM DESCRIPTION
630+	98	LF	GROUND MOUNTED SUPPORT, NO. 3 POST, TYPE S, AS PER PLAN
630+	7	EACH	2 1/4" SQUARE ANCHOR POST, AS PER PLAN
630+	2	EACH	STREET NAME SIGN SUPPORT, AS PER PLAN
630+	6	EACH	STREET NAME SIGN, AS PER PLAN
630+	65	SF	SIGN FLAT SHEET, AS PER PLAN
644	0.37	MI	CENTER LINE, 4"
644	34	LF	STOP LINE, 24"
644	40	LF	CHANNELIZING LINE, 8"
644	139	LF	TRANSVERSE LINE, 24"
644	2	EACH	LANE ARROW, 72"
644	0.57	MI	EDGE LINE, 4"
644	33	LF	REMOVAL OF PAVEMENT MARKINGS

+ = ITEMS TO BE PROVIDED AND INSTALLED BY THE CITY OF DUBLIN
TOTALS CARRIED TO GENERAL SUMMARY

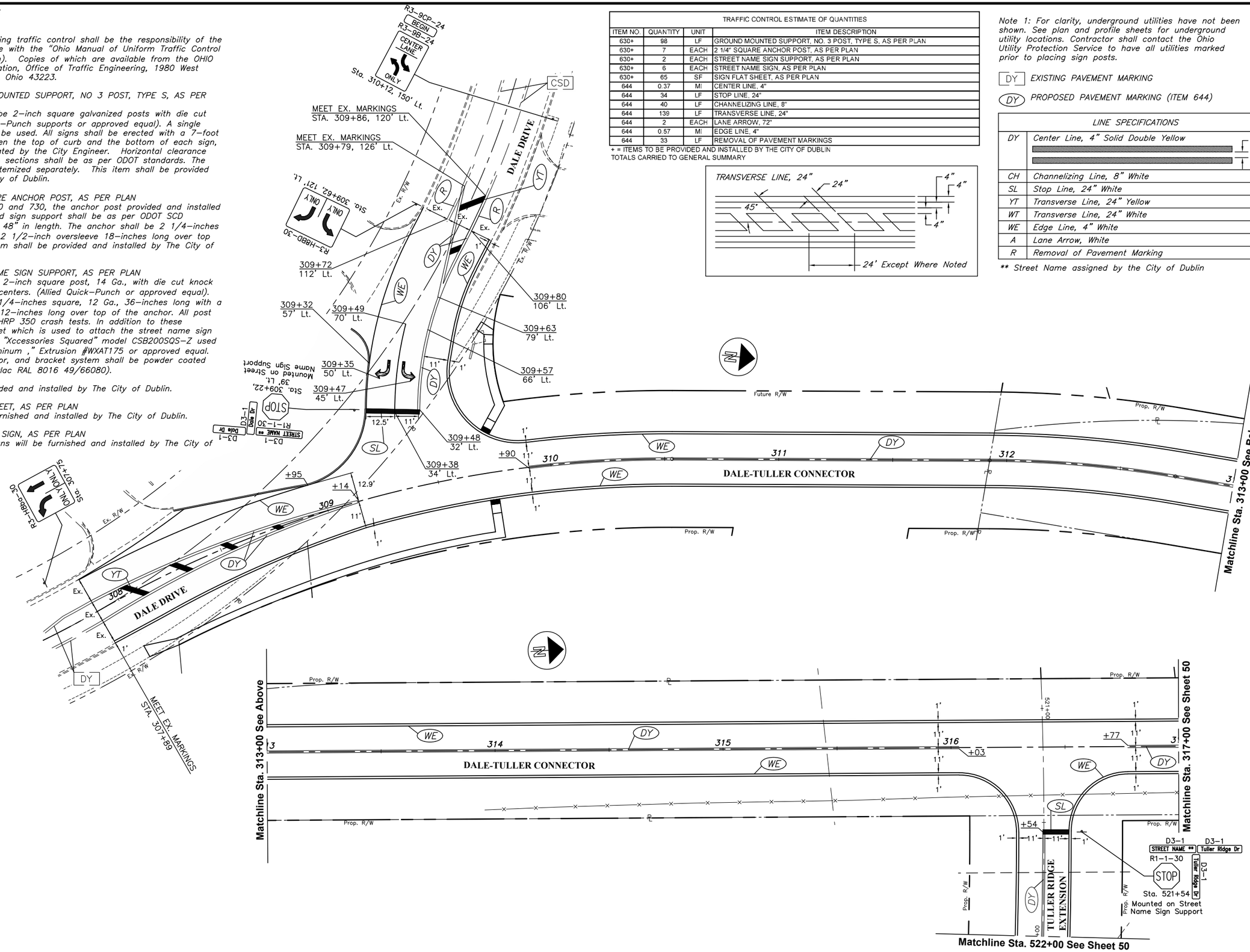
Note 1: For clarity, underground utilities have not been shown. See plan and profile sheets for underground utility locations. Contractor shall contact the Ohio Utility Protection Service to have all utilities marked prior to placing sign posts.

DY EXISTING PAVEMENT MARKING

(DY) PROPOSED PAVEMENT MARKING (ITEM 644)

LINE SPECIFICATIONS	
DY	Center Line, 4" Solid Double Yellow (4")
CH	Channelizing Line, 8" White
SL	Stop Line, 24" White
YT	Transverse Line, 24" Yellow
WT	Transverse Line, 24" White
WE	Edge Line, 4" White
A	Lane Arrow, White
R	Removal of Pavement Marking

** Street Name assigned by the City of Dublin



CALCULATED EPP
CHECKED JDS

TRAFFIC CONTROL PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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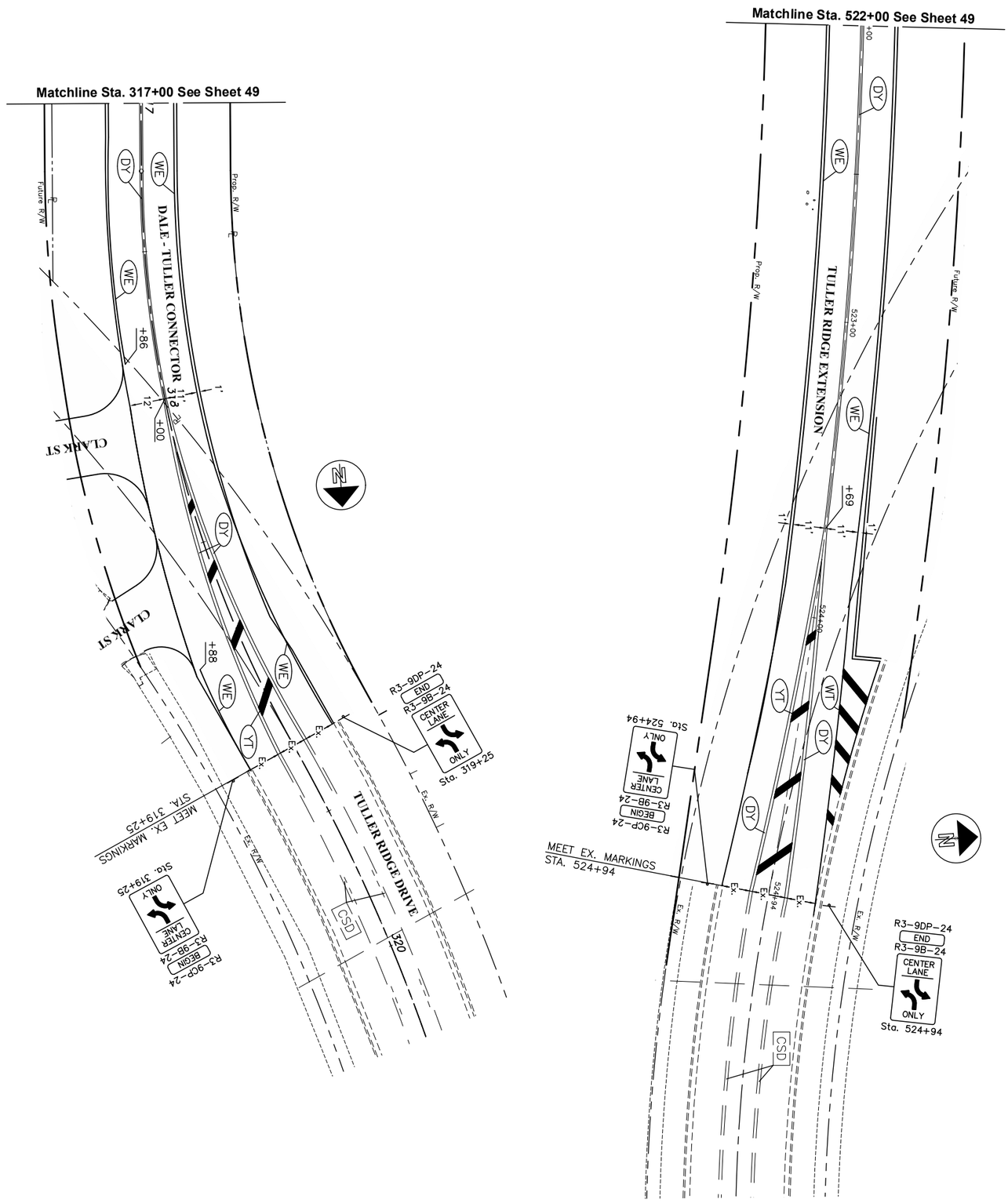
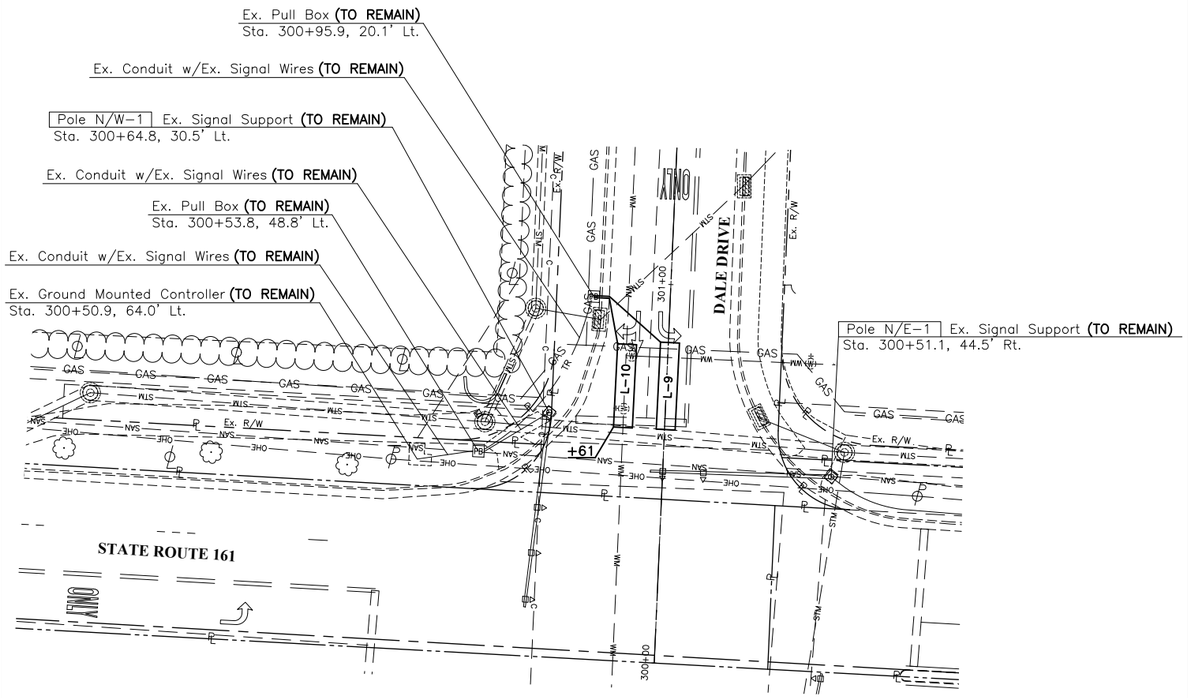


50 / 74	DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR	TRAFFIC CONTROL PLAN	CALCULATED EPP / CHECKED JDS / Horiz: 1 inch = 20 feet

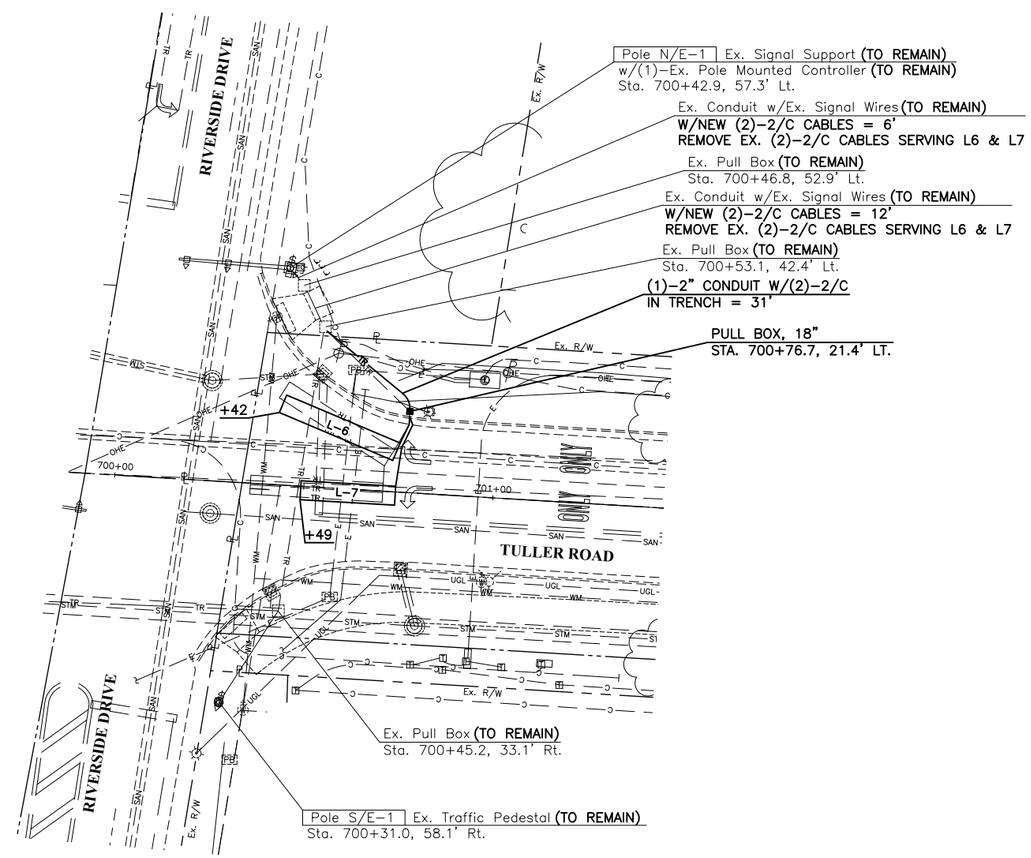
DETECTOR ASSIGNMENTS

DET #	DETECTOR ASSIGNMENT		PHASE	LOOP SIZE	LOOP DELAY DATA		DET UNIT RACK & CABLE LABEL
	UNIT #	CHAN #			DELAY IN SECONDS	INHIBIT DELAY DURING GRN ϕ	
L–9	Ex.	Ex.	Ex.	5'x23'	Ex.	Ex.	SB
L–10	Ex.	Ex.	Ex.	5'x22'	Ex.	Ex.	SB



DETECTOR ASSIGNMENTS

DET #	DETECTOR ASSIGNMENT		PHASE	LOOP SIZE	LOOP DELAY DATA		DET UNIT RACK & CABLE LABEL
	UNIT #	CHAN #			DELAY IN SECONDS	INHIBIT DELAY DURING GRN ϕ	
L–6	Ex.	Ex.	Ex.	5'x32'	Ex.	Ex.	WB
L–7	Ex.	Ex.	Ex.	5'x25'	Ex.	Ex.	WBLT



TRAFFIC SIGNAL NOTES

PLAN AND SPECIFICATION COMPLIANCE

These specifications, together with the accompanying plans, are intended to describe the type, size, and location of the products and materials to be provided and installed under various bid items related to traffic control. The Contractor shall furnish and install traffic signal devices in compliance with these plans and specifications, the 2013 ODOT Construction and Material Specifications including all supplemental specifications, the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, and the "TC" and "HL" standard construction drawings issued by ODOT. These specifications set forth the minimum design and operating requirements for traffic signal equipment.

Traffic signal control and highway lighting equipment shall meet or exceed the standards specified in the following documents:

a) Specifications listed in this plan.

b) NEMA Standards Publication no. TS1–1989 and/or TS2–2003 (or current NEMA issue) sections 1, 2, 5, 6, 8, 11,13 and 14.

c) 2013 ODOT Construction and Material Specifications 625, 632, 633, 725, 732 and 733.

In case of a conflicting specification statement, the specification document hierarchy shall be in the order listed from (A), highest, to (C), lowest.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATIONS

The Contractor shall be responsible for maintaining traffic signal installations within the project under the following conditions:

1. The Contractor shall be responsible for existing signal installations which the plan requires the Contractor to adjust, modify, add on to, or remove, or which the Contractor actually adjusts, modifies, or otherwise disturbs, from the time his operations first disturb the installation until the time the installation has subsequently been removed or modified and the work has been accepted.

2. The Contractor shall be responsible for maintenance of new signal installations or devices, installed by the Contractor, from the time of installation until the work is accepted.

The Contractor shall correct as quickly as possible all outages or malfunctions. He shall provide the Engineer such addresses and phone numbers where his maintenance forces can be contacted. The Contractor shall provide one or more persons to receive all calls and dispatch the necessary maintenance forces to correct outages. Such a person or persons may be used to perform other duties as long as prompt attention is given to these calls and a person is readily available continuously 24 hours a day, 7 days a week. All lamp outages, cable outages, electrical failures, equipment malfunctions and misaligned signal heads shall be corrected to the satisfaction of the Engineer with the signal back to service within four hours after the Contractor has been notified of the outage.

In the event new signals are damaged prior to acceptance all damaged equipment except poles and control equipment shall be replaced by the Contractor to the satisfaction of the Engineer with the signal back in service within 8 hours after the Contractor's notification of the outage.

If poles and/or control equipment are damaged and must be replaced, the Contractor shall make temporary repairs as necessary to bring the signal back into full operation within the allowed 8–hour period, and shall make permanent repairs or replacement as soon thereafter as possible.

None of the above shall be construed as collective or consecutive outage time periods at any one location. That is, where more than one outage occurs at any one location, then the allotted time limit shall be for the worst single outage.

Where outages are the direct result of a vehicular accident, the response of the Contractor shall be as outlined above. The Contractor shall be responsible for collection of any compensation for this work from those parties responsible for the damage.

Where the Contractor has failed to or cannot respond to an outage or signal equipment malfunction, at these locations within his responsibility, within periods as specified above, the Engineer may invoke the provisions of Section 105.15 and any subsequent costs to the City of Dublin for Police Services and Maintenance Services shall be deducted from monies due or to become due the Contractor in accordance with provisions of Section 105.15.

Any signalized intersection, where the signal is out of service due to construction procedures, or due to an outage or malfunction of equipment as described above, shall be placed under officer control.

Any vehicular traffic signal head which will be out of operation shall be covered in the manner described in 632.25.

All costs resulting from the above requirements shall be considered to be included in the lump sum price bid for Item 614 Maintaining Traffic, As Per Plan.

TRAFFIC SIGNAL ESTIMATE OF QUANTITIES

ITEM NO.	QUANTITY	UNIT	ITEM DESCRIPTION
625	31	LF	CONDUIT, 2", 725.05
625	31	LF	TRENCH
625	1	EACH	PULLBOX, 725.08, 18"
632	4	EACH	DETECTOR LOOP
632	160	LF	LOOP DETECTOR LEAD-IN CABLE, 2-CONDUCTOR, NO. 14 AWG

CALCULATED EPP
CHECKED JDS

TRAFFIC SIGNAL LOOP DETECTOR REPLACEMENT PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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AEP DUCT BANK NOTES

Work included in this plan improvement covers the installation and/or furnishing of private utility conduit, manholes and all other appurtenances as required and specified herein. Reference the Contract Documents, Engineering Specifications for AEP Duct Bank and additional general note sections for specifications and Contractor responsibilities. All work shall be performed in accordance with contract documents, applicable sections of the City of Columbus CMSC 2012, and the current requirements of the American Electric Power Company.

All underground Conduit System work shall be done according to the most recent revision of the following AEP Specifications:

American Electric Power –
Specification for Structural Concrete
Specification No. CE–1000–A

American Electric Power –
Specification for Underground Distribution Construction
Specification No. TDO–003

MISCELLANEOUS WORK ITEMS

All items of work called for on the plans for which no specific method of payment is provided shall be performed by the Contractor and the cost of same shall be included in the Price Bid for the cost of these project improvements.

American Electric Power:
American Electric Power will provide an On–Site inspector for supervision of the conduit installation in accordance with the plan specifications and AEP design standards. The Contractor shall coordinate his construction schedule as required to ensure the availability and presence of AEP inspection supervision. Work progress may be delayed in the event an agent from AEP cannot be present due to conflict with any construction activities scheduled.

City of Dublin:
The Contractor shall notify the City of Dublin's representative prior to commencement of construction activities. Installation of trenches within public right–of–ways will require proper inspection of backfill and compaction procedures. The Contractor shall be responsible for any costs associated with City inspection of the trench installation, reference the contract documents.

The Contractor shall provide independent testing procedures for the assurance of compliance with the contract specifications in regards to the installation. Testing shall include Concrete encasement, CDF, granular material and backfill compaction. Reference the contract documents for additional requirements. "Upon the completion of each phase of construction as described in the contract portion of the bidding documents, the Contractor shall have a (7) seven day period in which to fully clean and test the conduit for obstructions. A flexible steel mandrel not less than 12 inches long with a cross section of 1/4" less than duct size (fitted with a pulling eye at each end) shall be pulled through each conduit. By working the mandrel back and forth, obstructions such as concrete shall be removed. After the mandrel has been pulled through, a stiff circular wire brush and a swab sized for the conduit shall be pulled through the duct to remove any bits of concrete, etc. Also, all testing shall be required to be witnessed by a representative of the Owner to ensure compliance with these specifications."

UTILITY TRENCH BACKFILL SPECIFICATIONS

Backfill of Utility Trenches shall conform to the following specifications:

In the area of roadway pavement crossings, the trench shall be backfilled with CMSC Item 636 – Controlled Density Fill, Type II. All other utility trenches shall be backfilled with Compacted Granular Material, Per CMSC 603.08. Granular Material Shall conform with CMSC 304.02.

The Contractor will be responsible for backfilling and compaction of all trenches in accordance with the provided specifications. In areas of the proposed roadway earthwork operations, the Contractor shall be responsible for backfill and compaction of trenches to the proposed subgrade elevation of the respective roadway. In all other areas of disturbance outside of the concurrent roadway or driveway work, the backfill and compaction of trench along with proper restoration of existing surface to original condition (i.e.: existing pavement, aggregate surface, etc.) shall be performed in accordance with the plan specifications.

The Contractor will be responsible for the coordination of trench backfilling, compaction, and surface restoration where proposed utility crossings with the roadway utilities occur with the roadway contractor at all utility crossing locations.

SHEETING & BRACING

Any sheeting and bracing necessary to install duct bank shall be furnished, installed, and maintained by the Contractor at the Contractor's expense. No separate payment shall be made for sheeting and bracing. At ALL times the Contractor shall be required to excavate in a manner that is safe to all workers and the general traveling public. ALL OSHA requirements shall be upheld and sound safety practices shall be exercised at all times. Removal of sheeting and bracing items upon completion of work will be required as directed by the Engineer.

AEP DUCT LAY SPECIFICATION

GENERAL
Duct installed under these specifications shall be installed in accordance with the plans and drawings, and otherwise as described below. The installation shall comply with Section 32 of the latest edition of the National Electrical Safety Code (NESC) and the contract documents.

TRENCHING
The widths of all trenches shall be as shown in the drawings. The trench shall be wide enough to provide the required three inch (3") concrete envelope. Walls of all trenches shall be as straight as possible. The bottom of the ditch shall be as smooth and level as practical. Rocks, loose dirt and debris shall be removed from the bottom of the trench prior to assembling the duct bank.

DUCT
All duct shall be of the nominal trade size(s) shown on the plans, type Schd. 40 conforming to the specifications of NEMA Standard Publication No. TC–2, rated for 900 power cable. Conduit intended for communications cables (type "C"), or water or sewer pipe shall not be acceptable. All duct installed under these specifications shall be intended for concrete encasement. Cement application shall be in accordance with the conduit and cement manufacturer's recommendations

DUCT ACCESSORIES
Couplings, bends, bell ends, plugs, adapters, caps and other accessories shall be of a type designed for use with the Sch 40 duct specified above. Couplings, whether internal or external, shall be designed so as to maintain as smooth of an interior surface as possible. Angle couplings or 5 degree bends shall be used to make all minor vertical or horizontal adjustments to the conduit alignment. No field bends will be permitted. The minimum radius of all bends shall be 36 inches or as shown on the plans. Properly designed bell ends are to be used at all conduit terminations into manholes. All conduit ends are to be kept plugged until joined to the next length.

DUCT SEPARATION
Duct spacing, both horizontal and vertical, shall be two inches (2") as measured from the outside of one conduit to the outside of adjacent conduits. Spacing shall be accomplished by use of interlocking base and intermediate spacers placed at five foot (5') intervals as shown on the drawings.

CONCRETE ENCASEMENT
The concrete used for encasement shall be CSP type "T". This ready–mix concrete shall have a minimum compressive strength of 4500 psi at 28 days, minimum 6 sack mix, 6% air entrainment and 100% of coarse aggregate shall pass a 1/2 inch screen. The quantities per cubic yard of concrete shall be:

Fine Aggregate – 1278 lb. Coarse aggregate – 1700 lb. Cement Content – 611 lb. Net Water Content – 32 gal. (267 lb.)

The slump should be at the upper end of the range between 4 to 8 inches. It should have just enough slump to flow to the bottom of the formation and yet not be so wet as to as to cause the conduits to float. The delivery chute shall be adjusted so as to minimize the concrete's fall into the trench. Splash boards or other means shall be used to divert the flow of concrete away from the trench sides so as to avoid dislodging soil and stones. Reference Spec documents for additional details.

CAPPED ENDS
Immediately after placement of the casing, the ends of the installed casing shall be equipped with caps as described herein. To mark the conduit location, the Contractor shall set a ¾" steel rod 42" long at the capped ends of the conduit with the top of the rod being placed six inches below finished grade.

ITEM 410 – TRAFFIC COMPACTED SURFACE, TYPE A OR B, AS PER PLAN

The following quantity has been carried to the general summary for use as directed by the Engineer:

Item 410 – Traffic Compacted Surface, Type B or C 60 CY

This quantity is intended to be used as temporary pavement replacement for trenches within existing paved areas where the City determines that construction of permanent pavement replacement should be delayed due to phasing of the work, maintenance of traffic, or weather–related circumstances. No separate payment will be made for the subsequent removal of Traffic Compacted Surface prior to installation of permanent pavement.

ITEM SPECIAL – SWITCH GEAR PAD, COMPLETE

AEP shall furnish the fiberglass switch gear pad and the Contractor shall install it. The Contractor is responsible to install the fiberglass switch gear pad and the Contractor must furnish and install all other materials required to completely construct the switch gear pad per the plan detail, including but not limited to elbows, ground rods, stone, and other backfill material.

Payment for this item shall include all equipment, materials, labor, and incidentals necessary to completely construct the switch gear pad per the plan detials and notes and to the satisfaction of the Engineer.

ITEM SPECIAL – PRECAST CONCRETE ELECTRIC MANHOLE

1. Electric Manhole Materials
   The Precast Concrete Electric Manholes shall meet the following specifications:

   A. The Manholes shall be as that manufactured by United Precast or Norwalk Concrete Industries, Inc., or an approved equal.

   B. The Manholes shall be manufactured in accordance with the details provided.

   C. The manholes shall have overall dimensions of 8'–2" X 13'–2". Depth shall be 7'–10" feet inside dimension minimum.

   D. The Manholes shall be designed in accordance with AASHTO Standard HS–20–44 for Truck Loading.

   E. The top opening shall be 38 inches in diameter at the geometric center of the top slab.

   F. The Manhole Frames with Heacy Duty Solid Lids, shall be provided by AEP.

   G. Pulling Eyes shall be provided on the opposite side of each Duct opening. Pulling Eyes shall be as that manufactured by Line Material Company, Style No. DU 2T3, or an approved equal. Pulling Eyes must be Plated behind Nut to prevent pull thru.

   H. All concrete used in construction of the Manholes shall be Class "C" Concrete.

2. Installation

   A. The Contractor shall provide all excavation and backfill necessary for Manholes and Underground Conduit Duct installations.

   B. Excavation for Manholes shall extend a minimum of 6 inches below the bottom of their Bases or as necessary for proper installation of drainage and the completion of the work. No. 8 Aggregate or similar drainage medium shall be placed under the Manholes. The top of the Manhole shall be at least 24 inches below the final Finished Grade. If the structure is located in a sloped area, the minimum depth shall be measured from the lowest surface point above the structure.

   C. After the Manholes are set and Conduits are installed, Backfill shall be brought to proper level and shall be compacted in accordance with ODOT Item 604, Section 604.04 of the "Construction and Material Specifications." Backfill shall be brought to the bottom of the Proposed Paving Base in paved areas. Restoration of paved areas shall be as detailed. Restoration of unpaved areas shall be in kind with final surrounding materials (Sod, Gravel, etc.).

   D. Work shall be planned so that excavations are open for a minimum of time. No load or backfill shall be applied or other work conducted that would damage the new concrete or interfere with its curing.

   E. All open Trenches shall be barricaded and property protected.

   F. After Manholes are placed, the Manhole Cover Frames shall be placed and the top adjusted to ground or paving level. Final adjustments will be required for final resurfacing. A 6–inch thick concrete or brick adjusting ring shall be provided to endure closure between the top slap of the Manhole and the Frame.

3. Basis of Payment

   The work included in these Items including excavation and backfill., and all equipment and materials necessary, shall be paid for at the contract price, completed in place. For quantities see General Summary.

ITEM Special

CALCULATED MJS CHECKED MRB

AEP AND DUBLINK PLAN
AEP NOTES

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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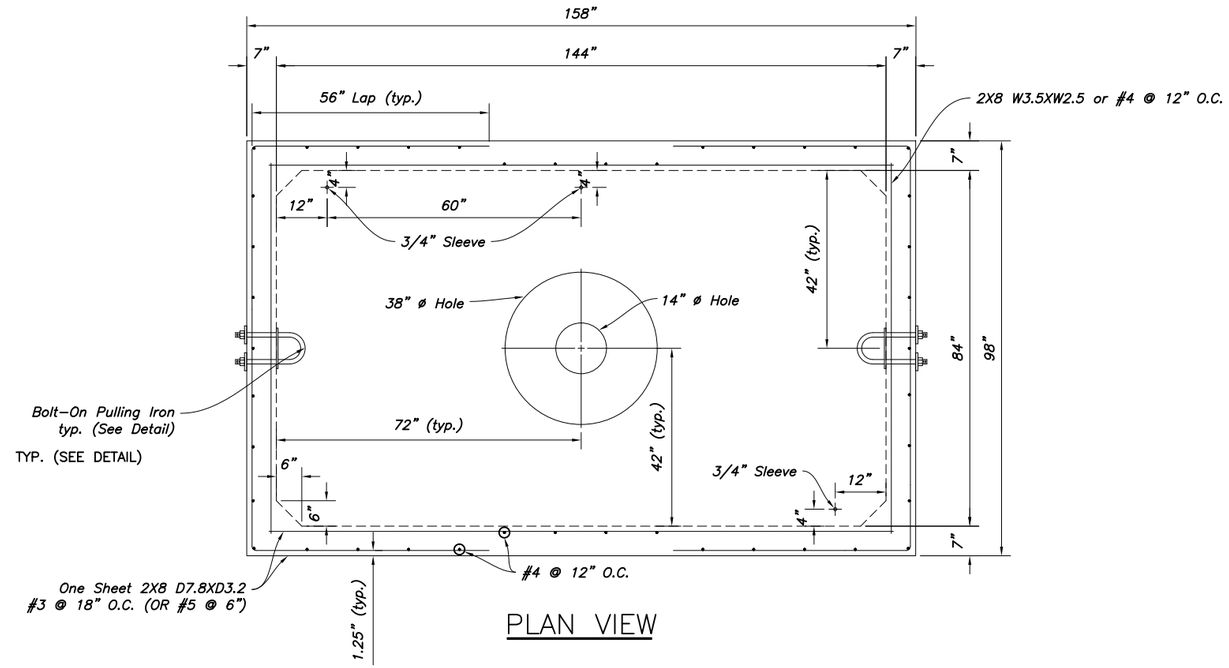
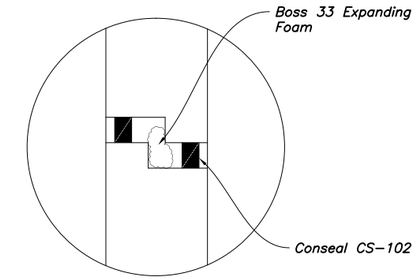


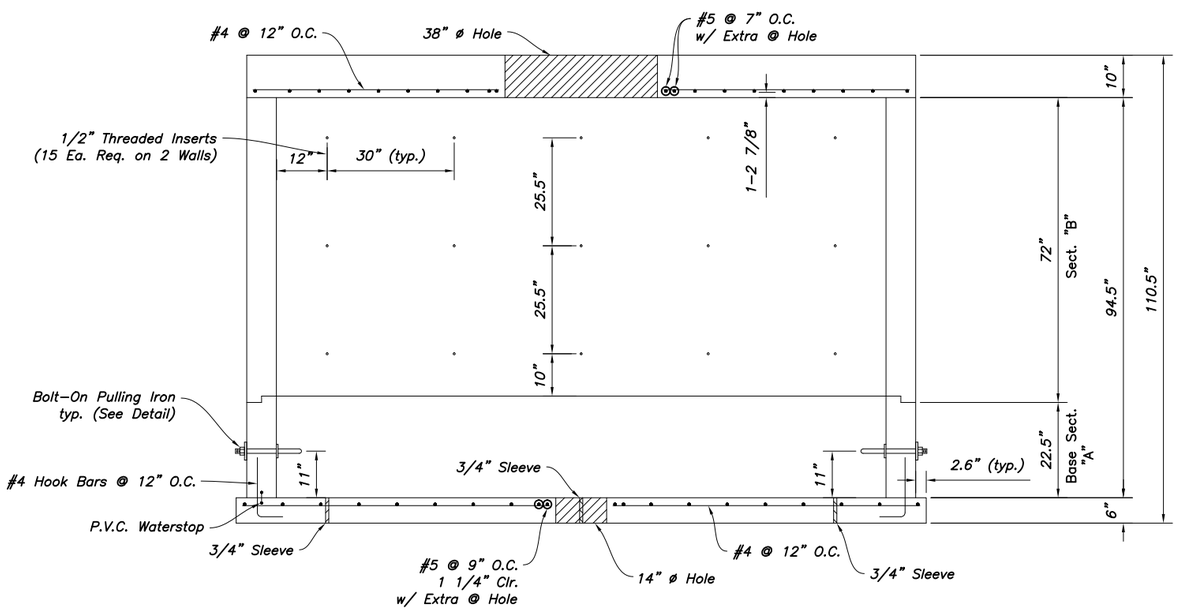
PLAN VIEW



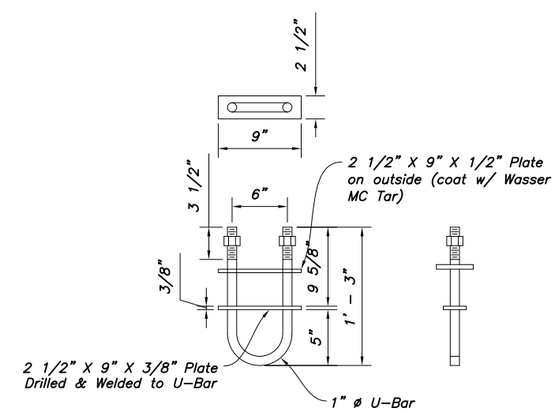
JOINT DETAIL

WEIGHTS:

Base Section "A": 15,600#
Section "B": 21,700#
Top Slap: 13,300#



ELEVATION VIEW



BOLT–ON PULLING
IRON DETAIL

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN
AEP MANHOLE DETAILS

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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74

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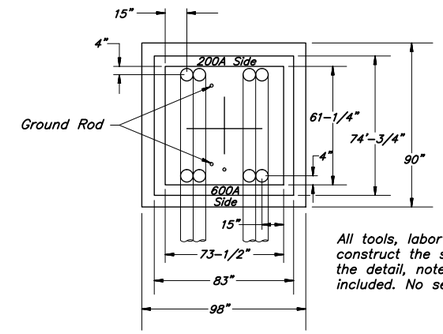
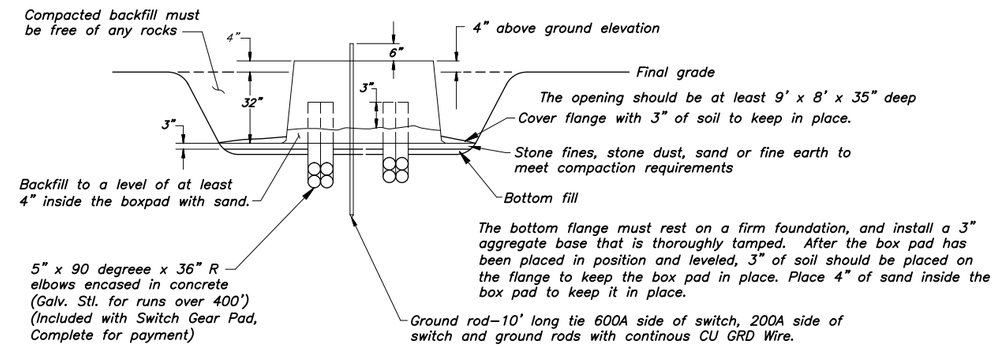


All tools, labor and materials necessary to construct the switch gear pad in compliance with the detail, notes, and AEP specifications shall be included. No separate payment shall be made.

Plan View



Profile View

ITEM SPECIAL - SWITCH GEAR PAD, COMPLETE

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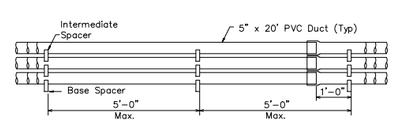
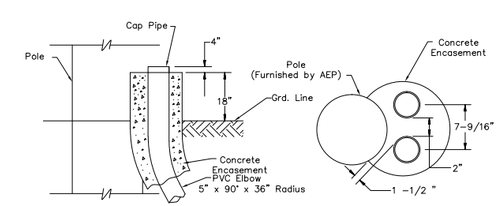


DUCT STACKING DETAIL

TYPICAL



DETAILS ITEM SPECIAL: RISER CONDUIT, COMPLETE

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CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN
AEP DETAILS

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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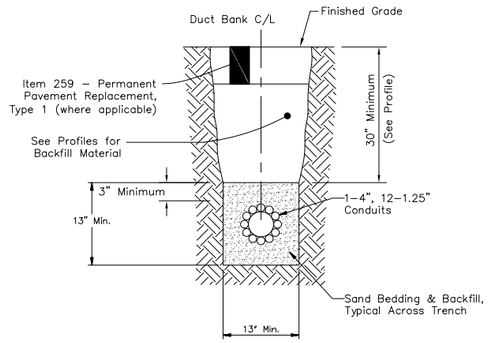

A DUBLINK CONDUIT TRENCH DETAIL REPLACES -

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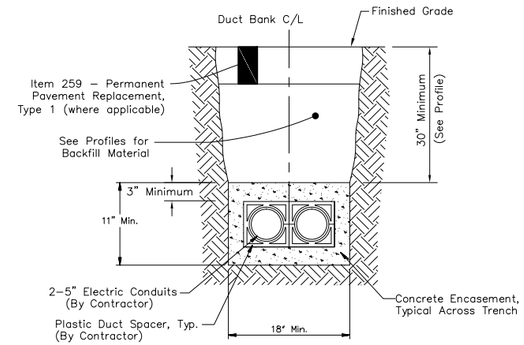

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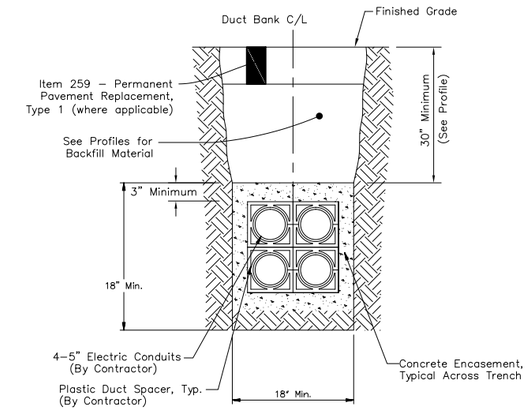

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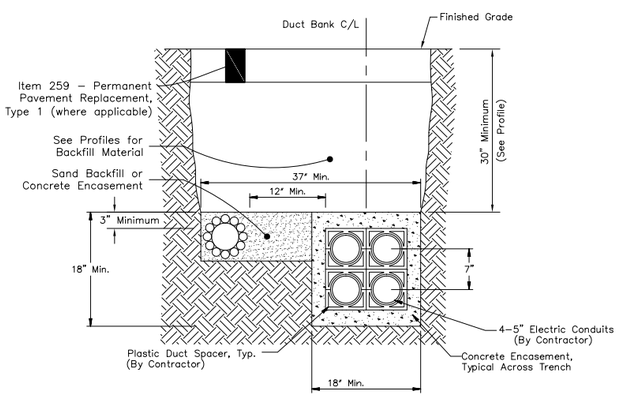

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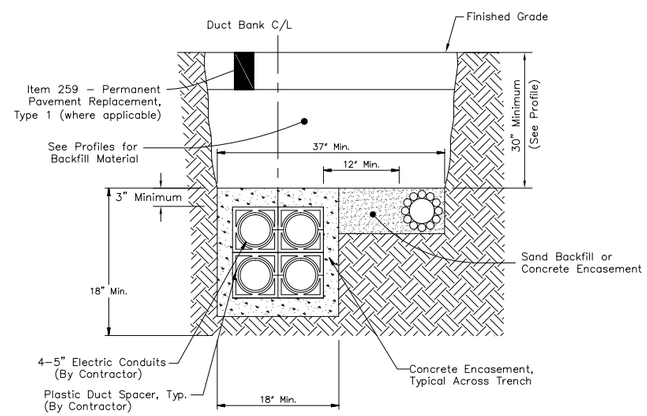

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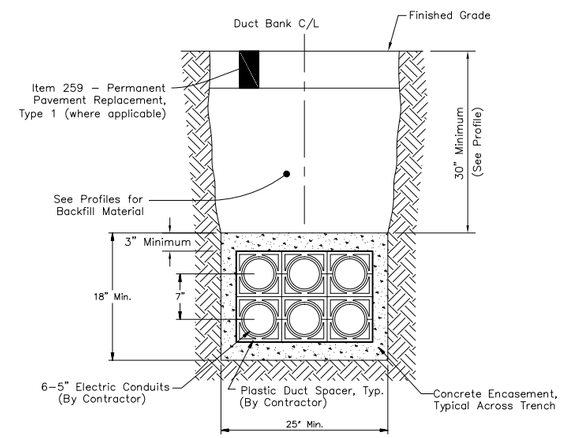

F 6 - 5" CONDUITS TRENCH DETAIL REPLACES -

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN TRENCH DETAILS

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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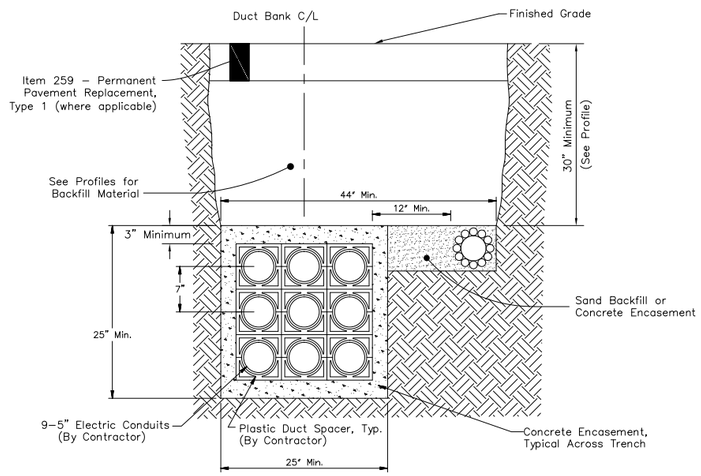

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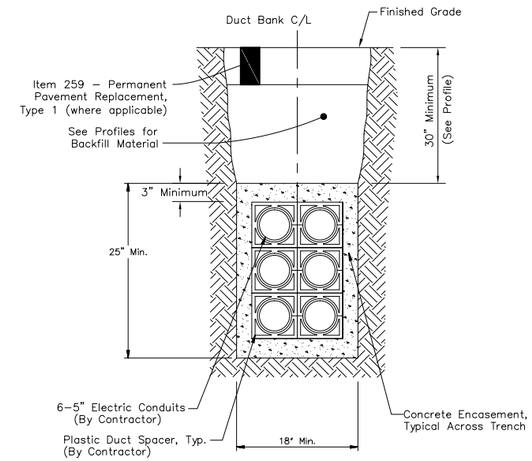

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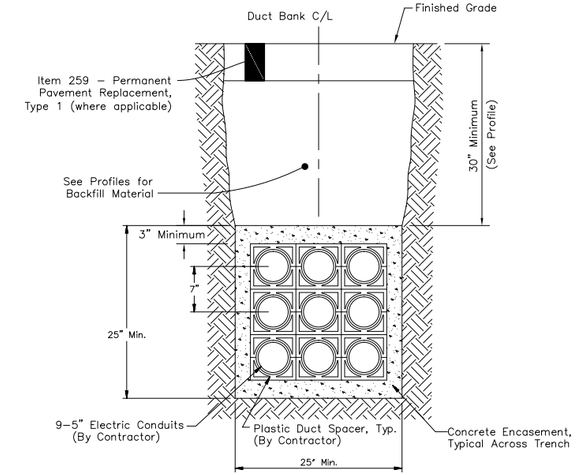

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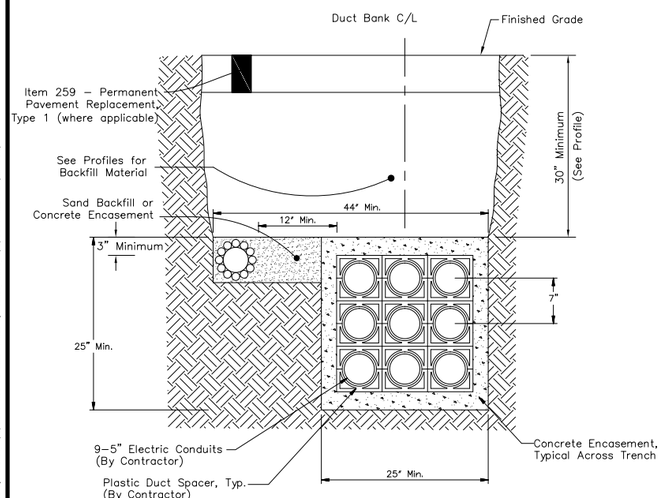

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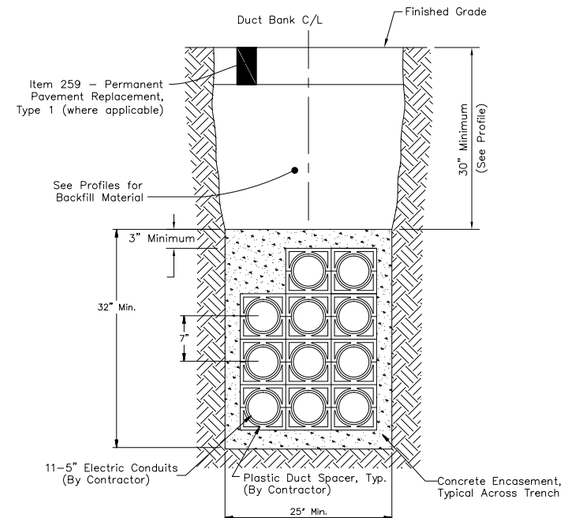

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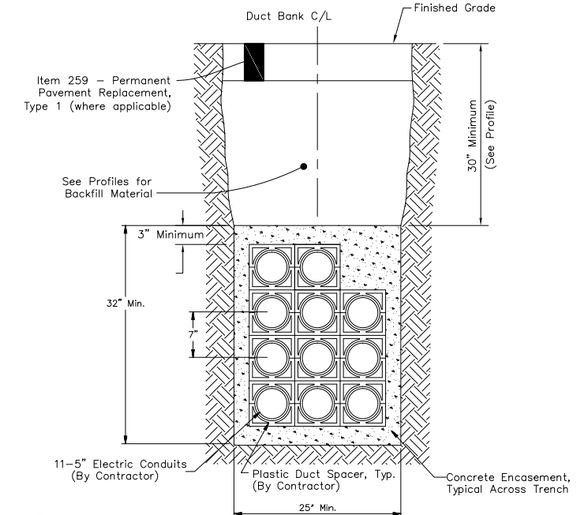

L 11 - 5" CONDUITS TRENCH DETAIL REPLACES -

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AEP AND DUBLINK PLAN TRENCH DETAILS

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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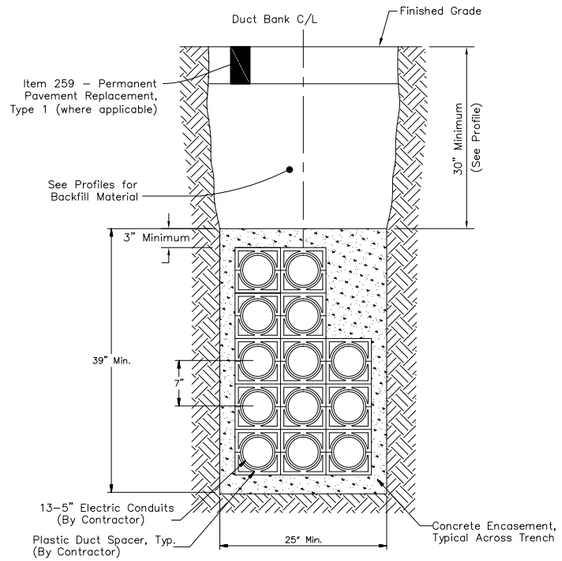

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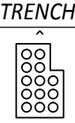

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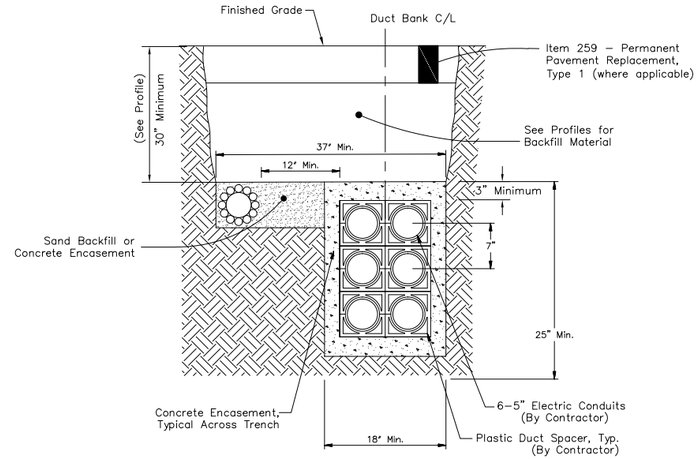
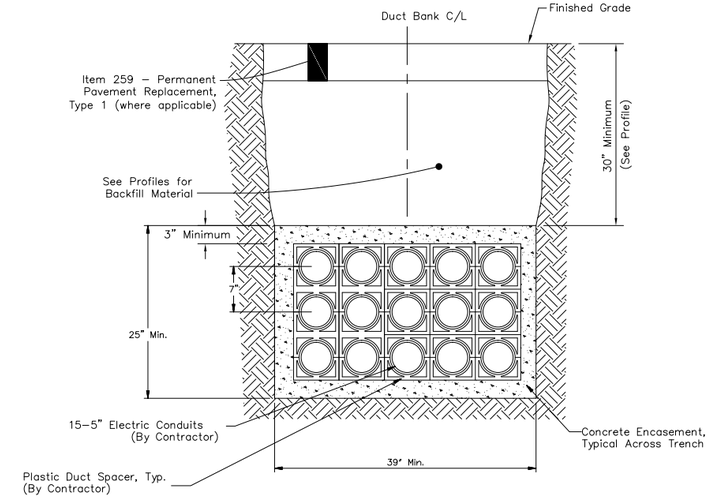


N

9- 5" CONDUITS TRENCH DETAIL REPLACES -

Not To Scale



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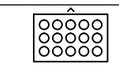
15 - 5" CONDUITS TRENCH DETAIL REPLACES -



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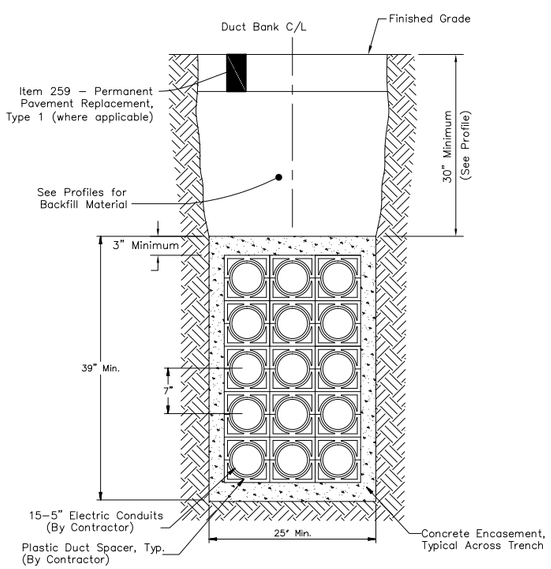

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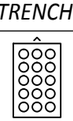
15 - 5" CONDUITS TRENCH DETAIL REPLACES -



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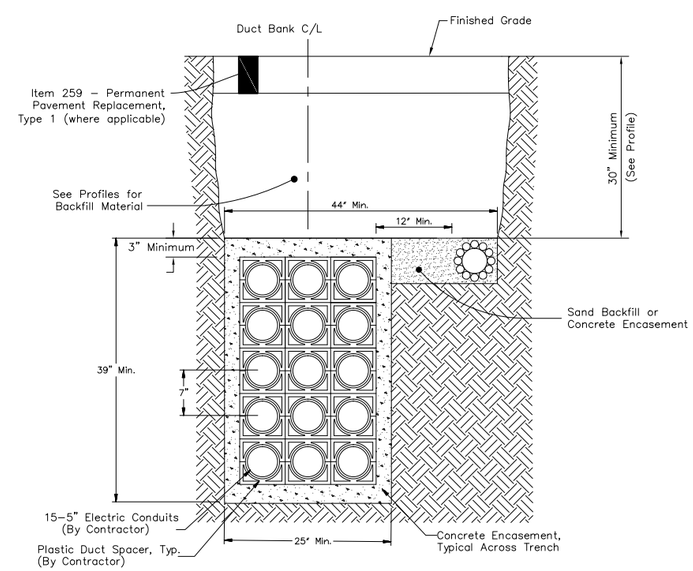

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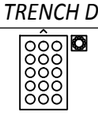
15 - 5" CONDUITS TRENCH DETAIL REPLACES -



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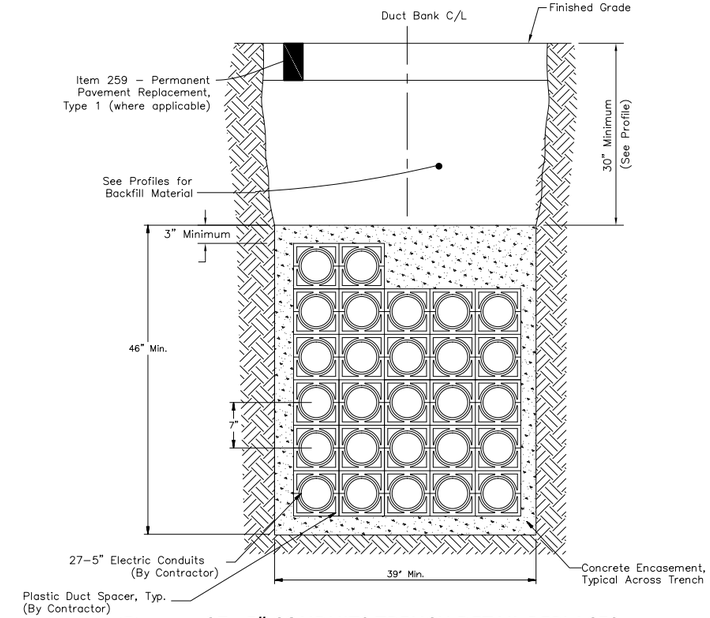

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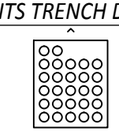
27 - 5" CONDUITS TRENCH DETAIL REPLACES -



Not To Scale

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN TRENCH DETAILS

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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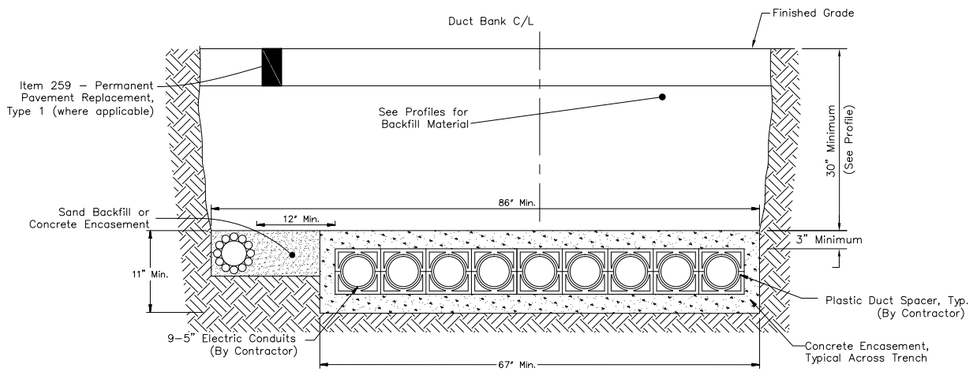
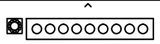


S 9 - 5" CONDUITS PLUS DUBLINK TRENCH DETAIL REPLACES -



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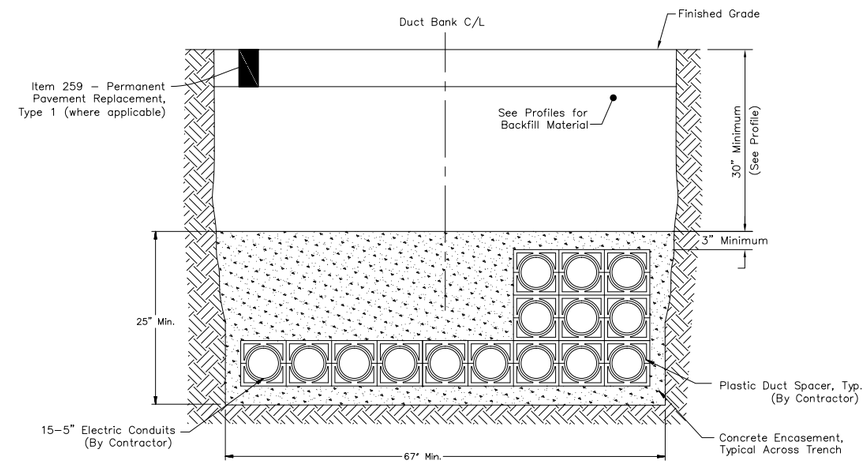
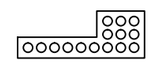


T 15 - 5" CONDUITS TRENCH DETAIL REPLACES -



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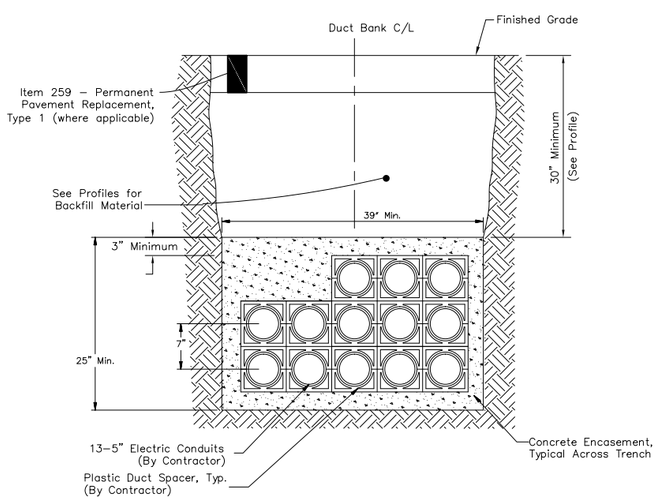
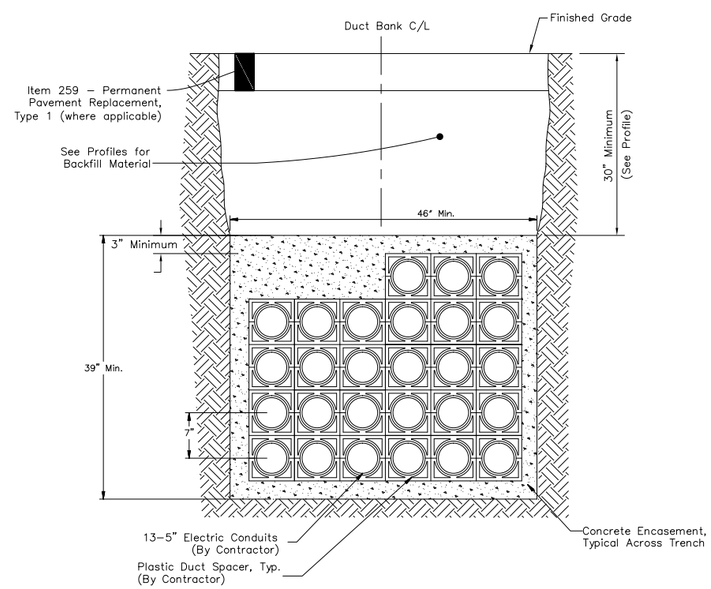
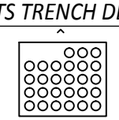


U 13 - 5" CONDUITS TRENCH DETAIL REPLACES -

Not To Scale



V 27 - 5" CONDUITS TRENCH DETAIL REPLACES -



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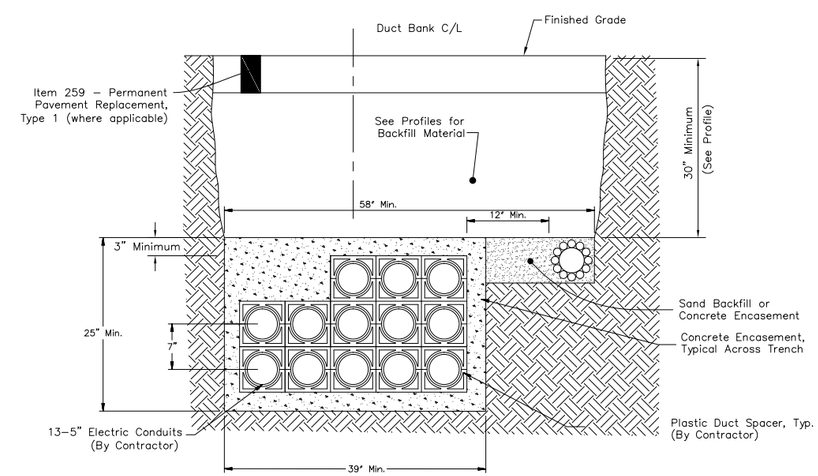
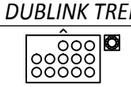


W 13 - 5" CONDUITS PLUS DUBLINK TRENCH DETAIL REPLACES -



Not To Scale

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN TRENCH DETAILS

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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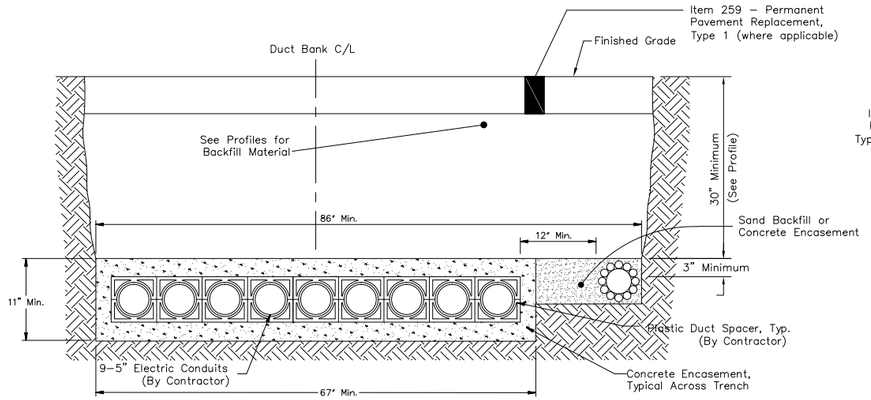

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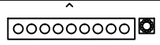
9 - 5" CONDUITS PLUS DUBLINK TRENCH DETAIL REPLACES -



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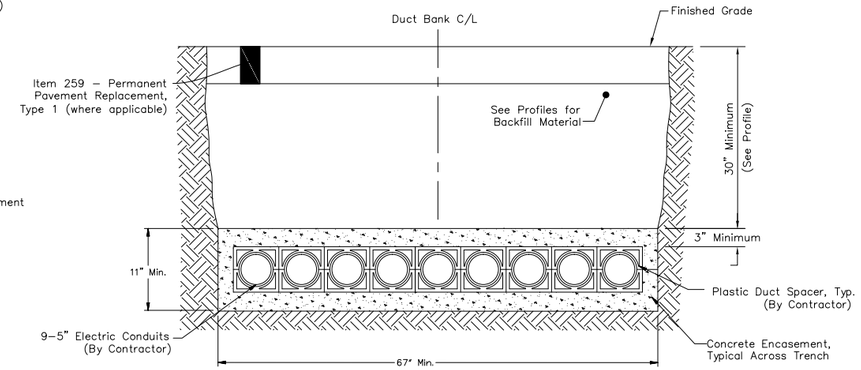

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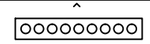
9 - 5" CONDUITS TRENCH DETAIL REPLACES -



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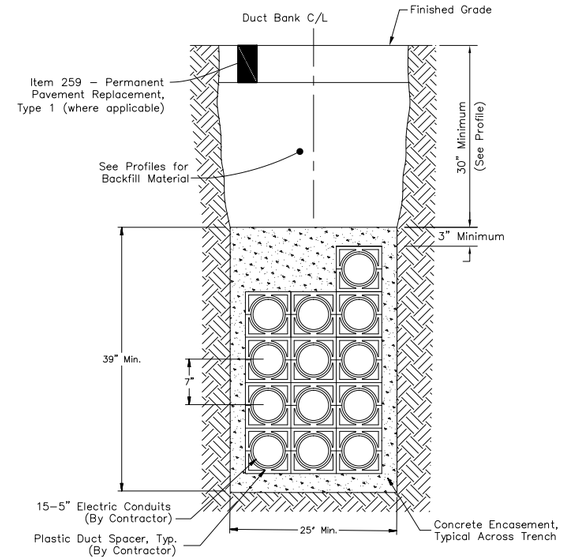

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15 - 5" CONDUITS TRENCH DETAIL REPLACES -

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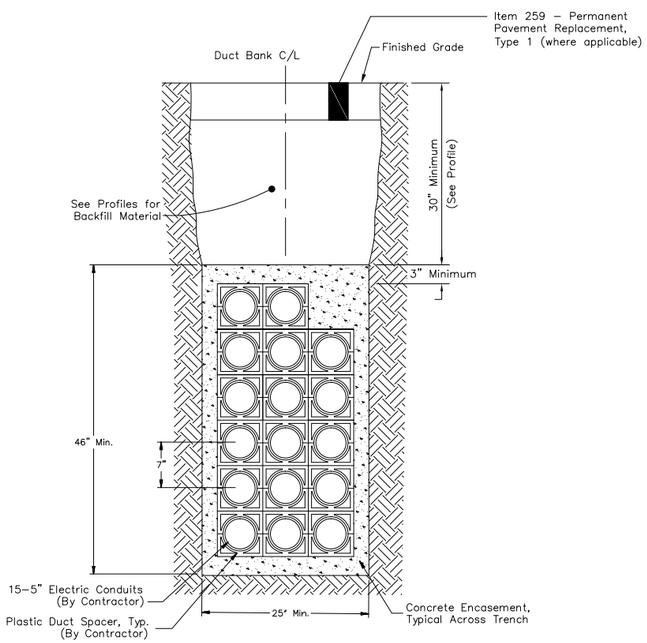

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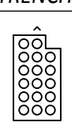
17 - 5" CONDUITS TRENCH DETAIL REPLACES -



Not To Scale

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN TRENCH DETAILS

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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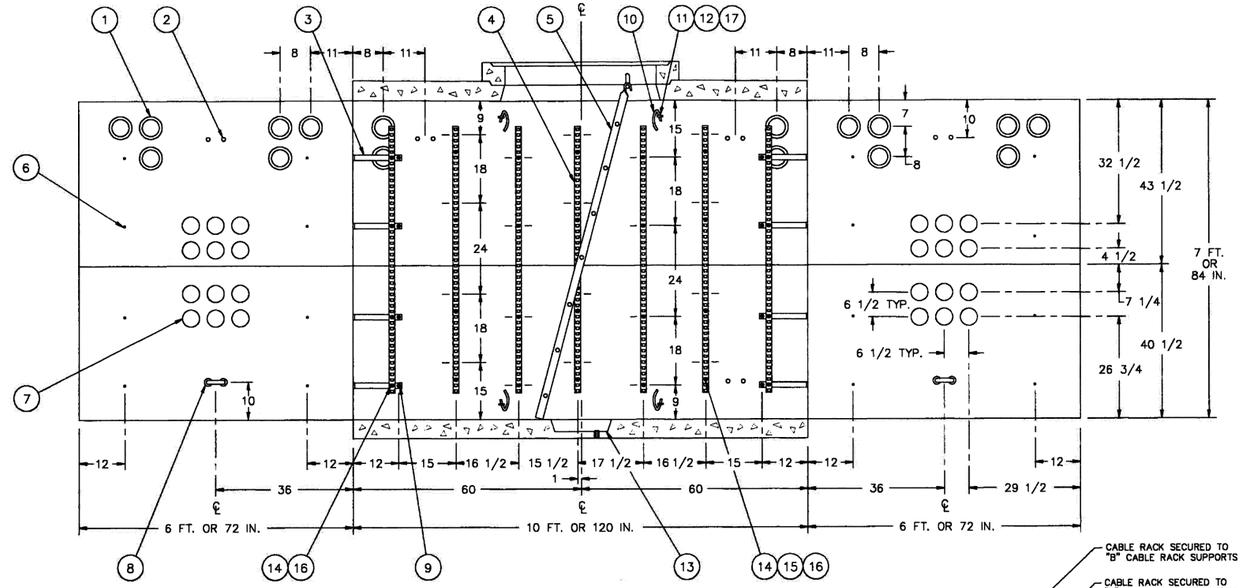
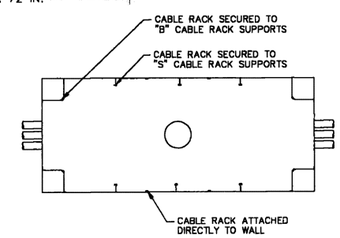
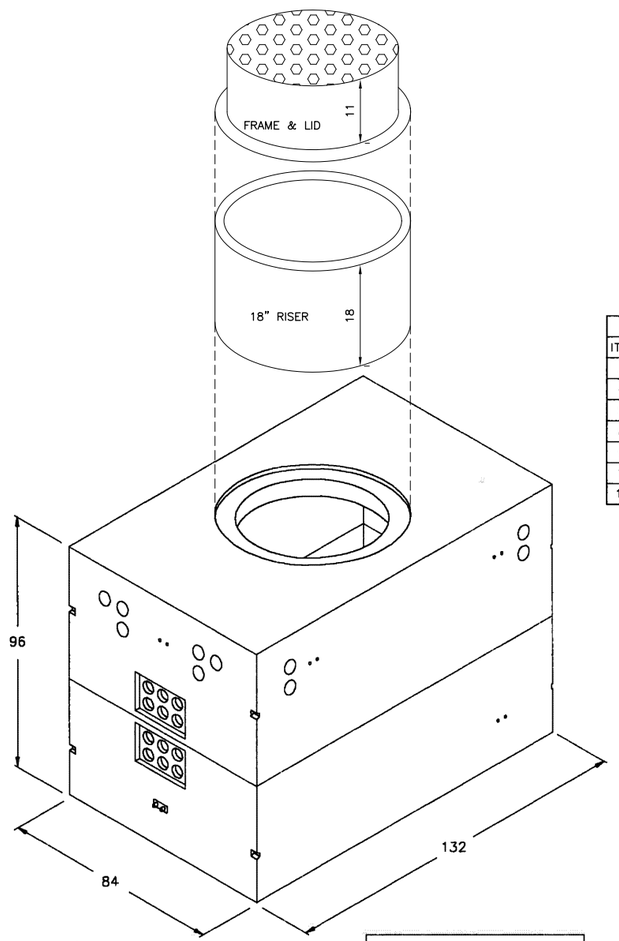




HARDWARE PACKAGE – ASS'Y NO. 20-564-AJ												
ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION	CAST-IN ITEMS			
3	4487	16	"B" CABLE RACK SUPPORT	14	1005	40	1/2-13 X 1 1/4 HEX BOLT	ITEM	PART NO.	REQ'D	DESCRIPTION
4	4476	14	47 HOLE CABLE RACK	15	4484	24	"S" CABLE RACK SUPPORT	1	——	20	4 1/4 DIA. KNOCKOUT
5	21-202	1	HOOK LADDER	16	1020	40	1/2-13 HEX NUT	2	——	8	PULL-IN IRON KNOCKOUT
8	23-002	2	PULL-IN IRON					6	4365	72	1/2-13 PLASTIC INSERT
9	1015	72	1/2-13 X 2 HEX BOLT	OPTIONAL				10	4370	4	8 FT. BONDING RIBBON
11	8937	8	3/8-16 X 1 PLASTIC BOLT	ITEM	PART NO.	REQ'D	DESCRIPTION	13	25-000	1	14 DIA. SUMP
12	8931	8	BONDING RIBBON CLAMP	7	8934	24	4 DIA. DUCT TERMINATOR	17	5370	8	3/8-16 PLASTIC INSERT

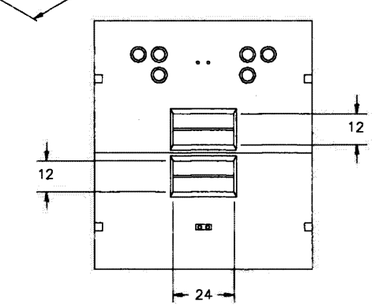


MANHOLE WITH
DUCT TERMINATORS
CASTING NO. 10-140T

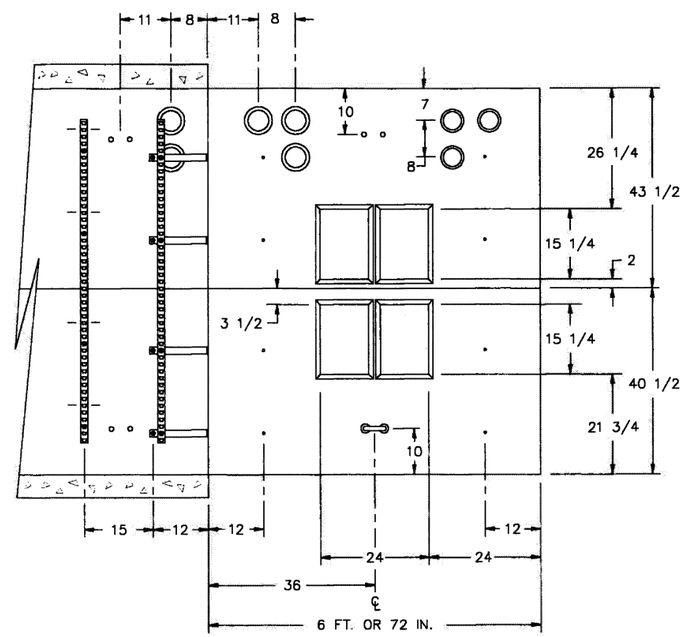
DIMENSIONS

	LENGTH IN.	WIDTH IN.	HEIGHT IN.
INSIDE	120	72	84
OUTSIDE	132	84	96
RECOMMENDED HOLE SIZE	156	108	–

THICKNESS IN.		WEIGHT LBS.	
WALL	6	TOP	14,950
ROOF	6	BOTTOM	14,600
FLOOR	6	TOTAL	29,550



MANHOLE WITH KNOCKOUTS
CASTING NO. 10-140K



CALCULATED EAM
CHECKED MRB

AEP AND DUBLINK PLAN
DUBLINK NOTES AND DETAILS

DALE DRIVE - TULLER RIDGE
DRIVE TEMPORARY
CONNECTOR

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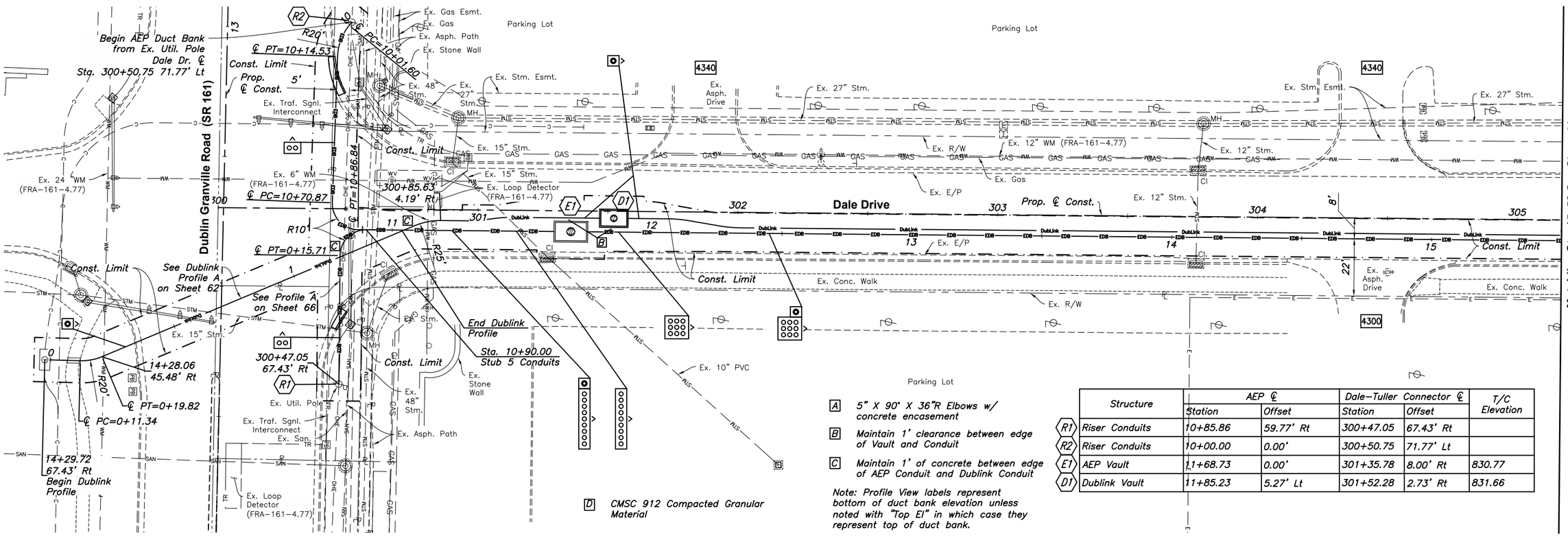


A 5" X 90° X 36"R Elbows w/ concrete encasement

B Maintain 1' clearance between edge of Vault and Conduit

C Maintain 1' of concrete between edge of AEP Conduit and Dublink Conduit

D CMSC 912 Compacted Granular Material

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

	Structure	AEP ℄		Dale–Tuller Connector ℄		T/C Elevation
		Station	Offset	Station	Offset	
R1	Riser Conduits	10+85.86	59.77' Rt	300+47.05	67.43' Rt	
R2	Riser Conduits	10+00.00	0.00'	300+50.75	71.77' Lt	
E1	AEP Vault	11+68.73	0.00'	301+35.78	8.00' Rt	830.77
D1	Dublink Vault	11+85.23	5.27' Lt	301+52.28	2.73' Rt	831.66

Matchline Sta. 15+50 See Sheet 63

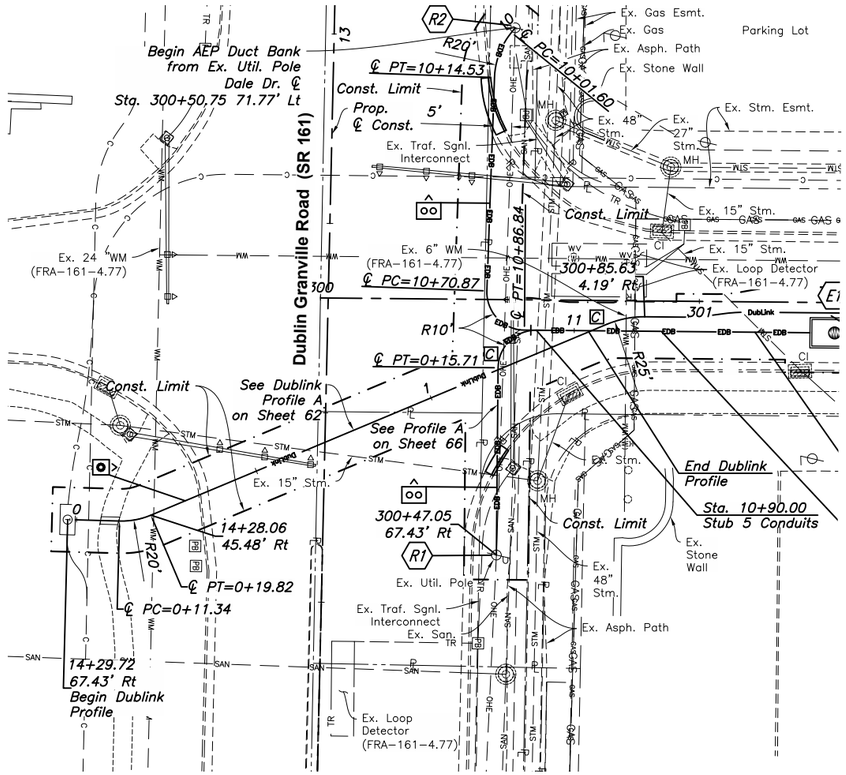
Vert: 1 inch = 5 feet
Horz: 1 inch = 20 feet

CALCULATED MJS
CHECKED MRB

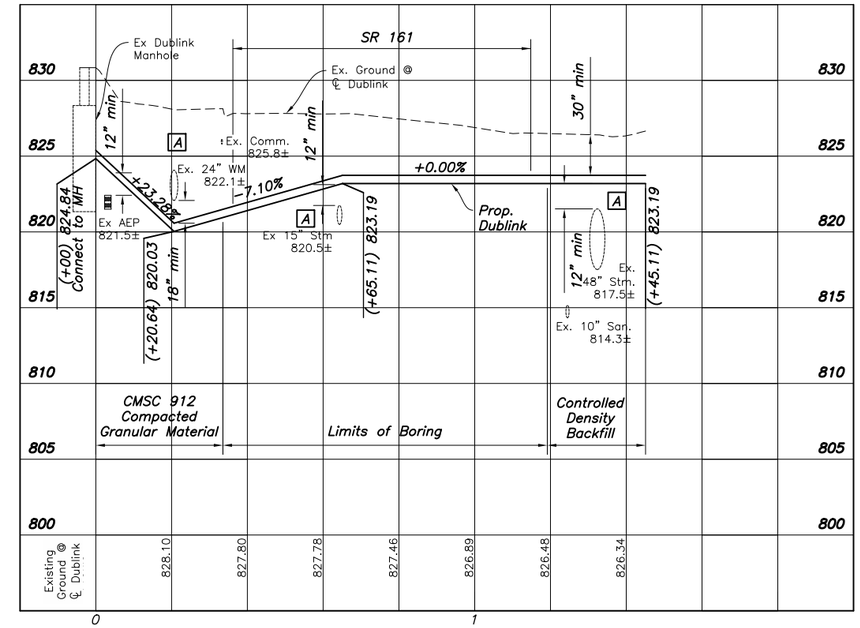
AEP AND DUBLINK PLAN STA. 10+00 TO STA. 15+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

J:\2013045\1\Dwg\04Sheets\Temporary_Dale-Tuller Connector\2014DS8AEP001.dwg Last Saved By: avonce, 7/3/2014 3:06 PM Last Printed By: Scheer, Matthew, 7/7/2014 8:45 AM
S Xrefs: 2013045-CS-MAP-REFR-N2, 2013045-CS-REFR-L2, 2013045-CS-PMM-REFR-L2, 2013045-CU-REFR-N, 2013045-CU-REFR-E



DUBLINK PROFILE A PLAN VIEW



DUBLINK PROFILE A

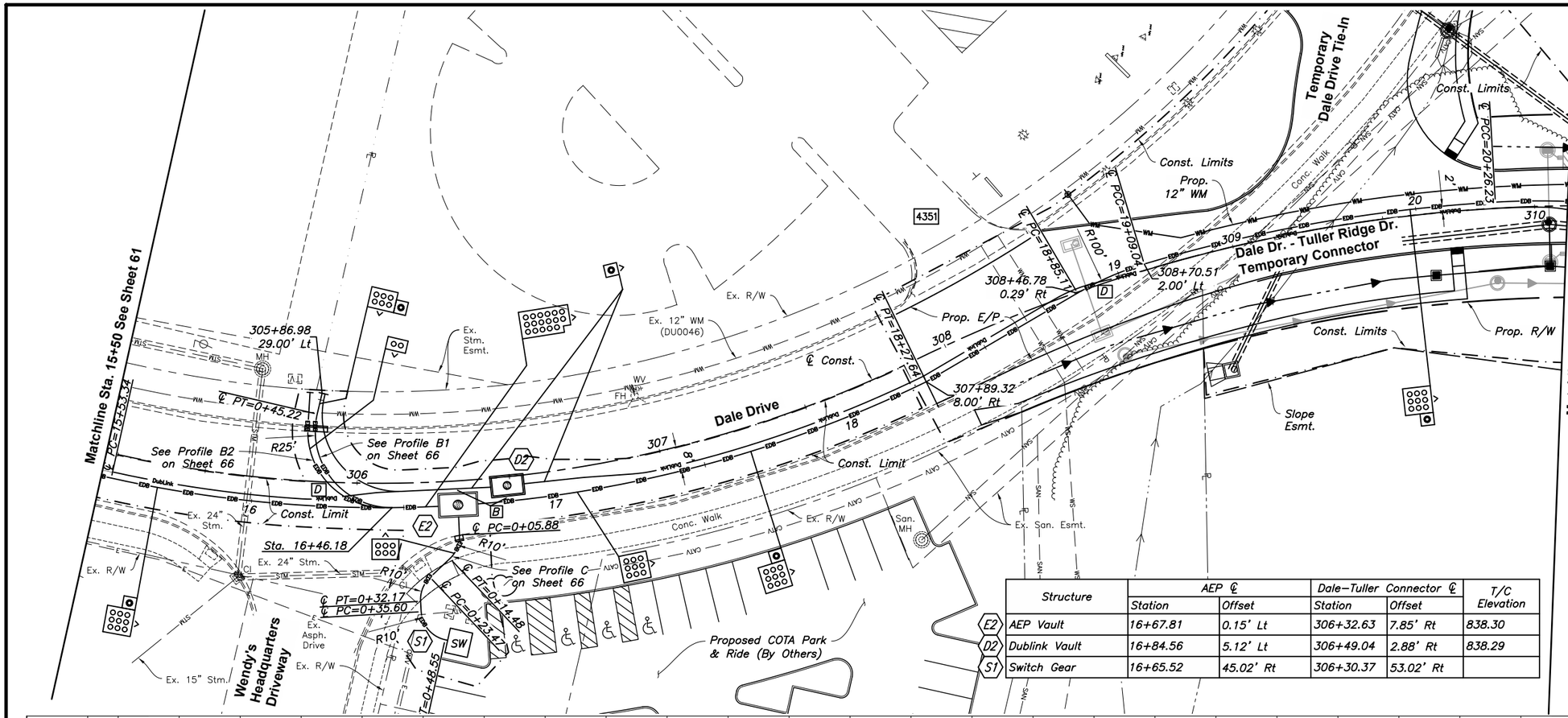
A *Expose existing pipe to verify elevation*

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR



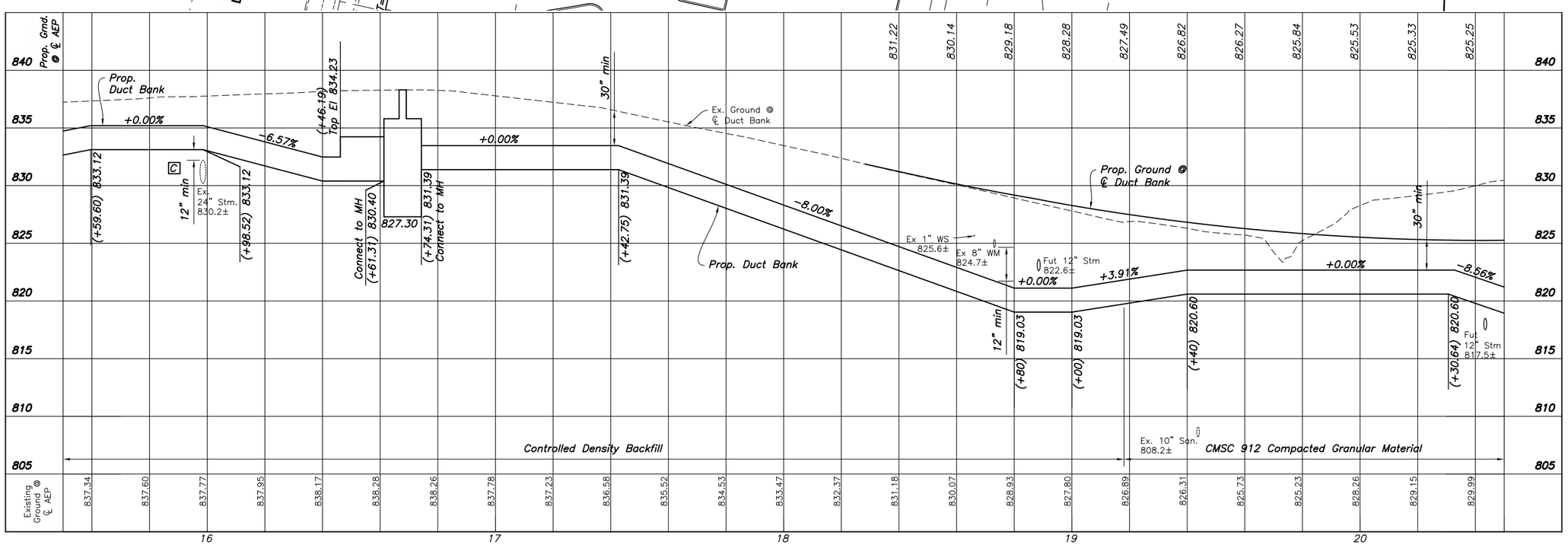
Structure	AEP ℄		Dale–Tuller Connector ℄		T/C Elevation
	Station	Offset	Station	Offset	
E2 AEP Vault	16+67.81	0.15' Lt	306+32.63	7.85' Rt	838.30
D2 Dublink Vault	16+84.56	5.12' Lt	306+49.04	2.88' Rt	838.29
S1 Switch Gear	16+65.52	45.02' Rt	306+30.37	53.02' Rt	

B Maintain 1' clearance between edge of Vault and Conduit

C Expose existing storm to verify elevation.

D Maintain 1' of concrete between edge of AEP Conduit and Dublink Conduit

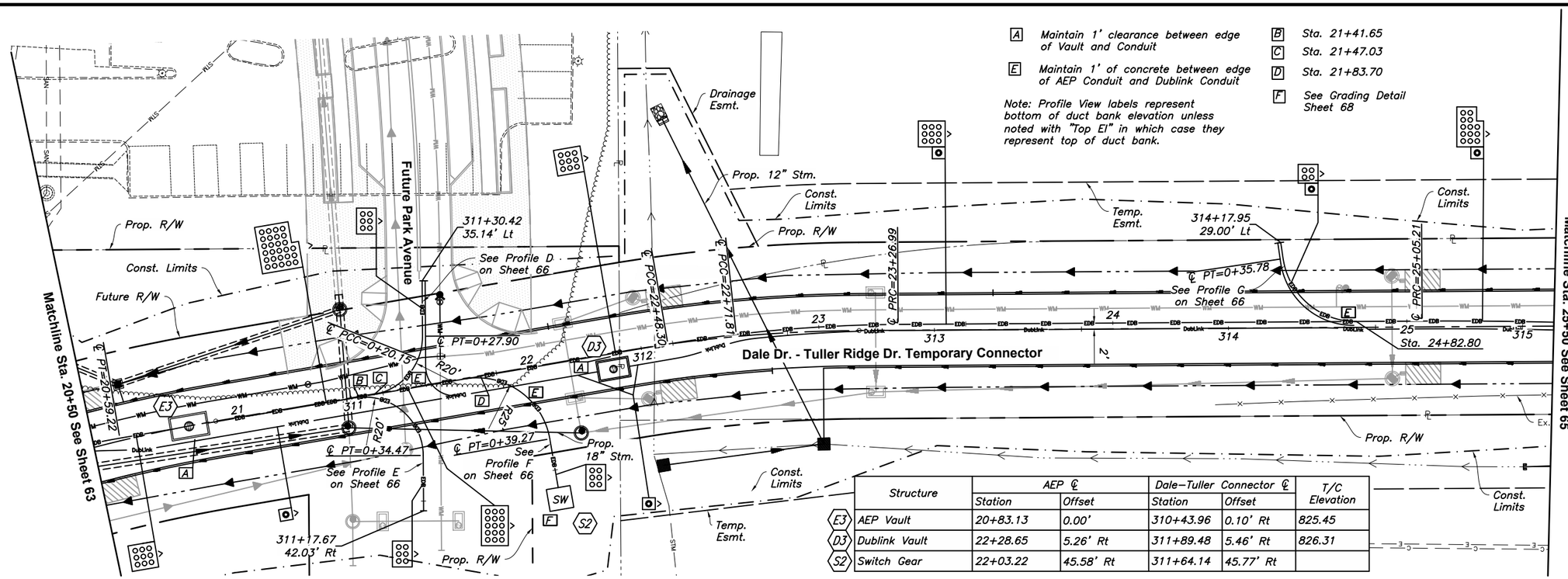
Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.



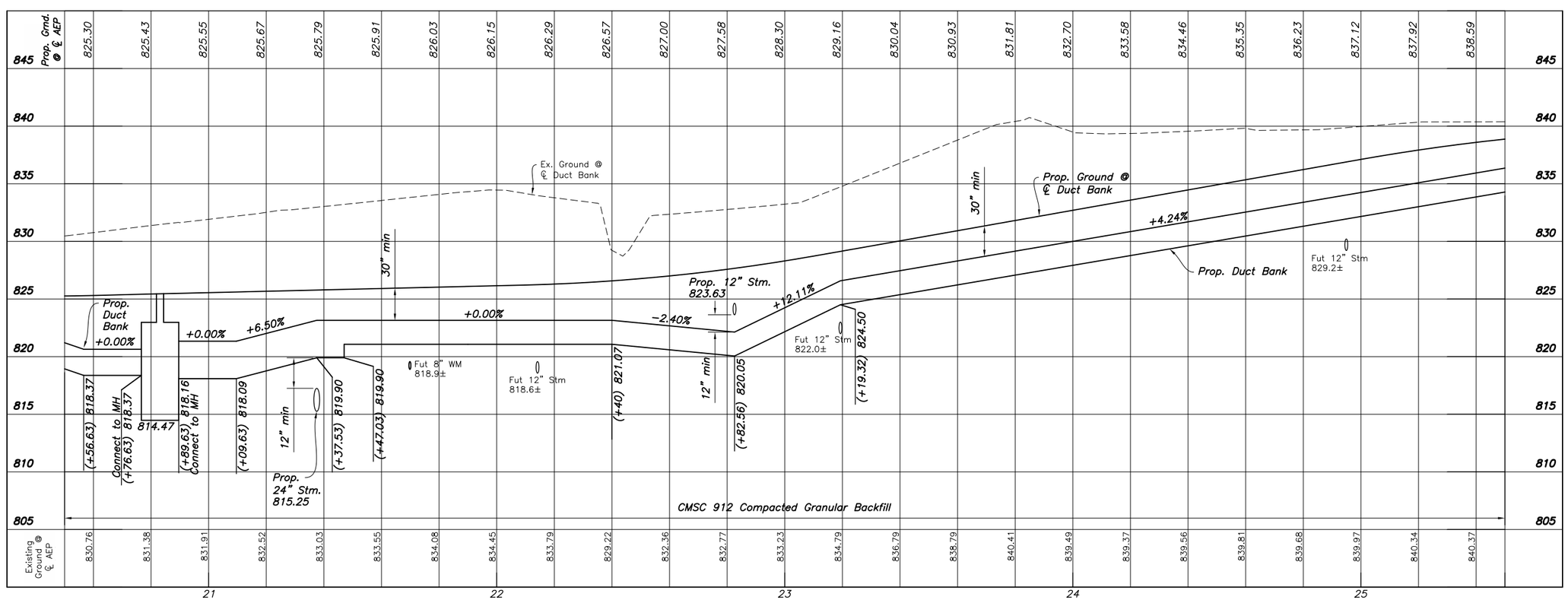
AEP AND DUBLINK PLAN
STA. 15+50 TO STA. 20+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

CALCULATED MJS
CHECKED MRB



Structure	AEP ℄ Station	AEP ℄ Offset	Dale–Tuller Connector ℄ Station	Dale–Tuller Connector ℄ Offset	T/C Elevation
E3 AEP Vault	20+83.13	0.00'	310+43.96	0.10' Rt	825.45
D3 Dublink Vault	22+28.65	5.26' Rt	311+89.48	5.46' Rt	826.31
S2 Switch Gear	22+03.22	45.58' Rt	311+64.14	45.77' Rt	



CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN STA. 20+50 TO STA. 25+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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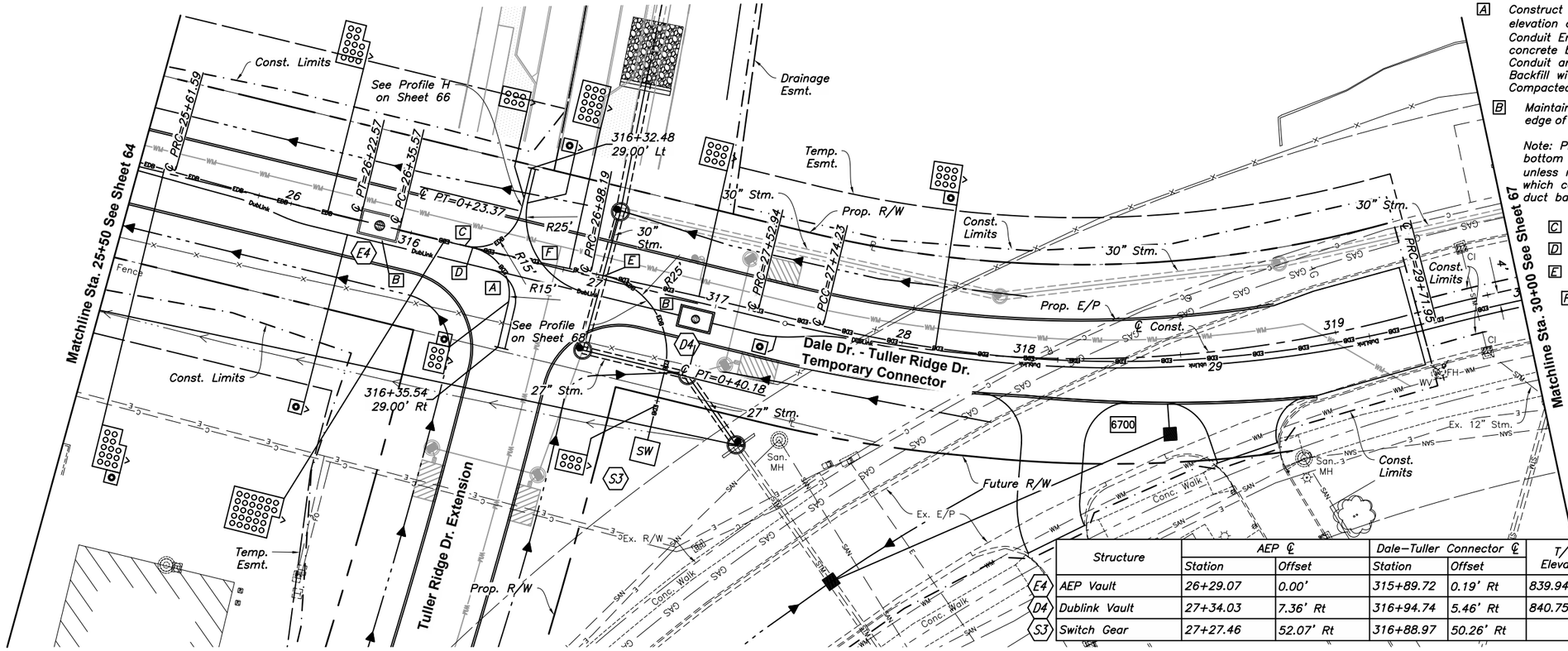
Xrefs: 2013045-CS-MOAI-REFR-N2, 2013045-CS-REFR-L2, 2013045-CS-PMAT-REFR-L2, 2013045-CU-REFR-N, 2013045-CU-REFR-E



A Construct Top of Duct Bank at an elevation of 30" below grade. Cap Conduit Ends. Maintain 1' of concrete between edge of AEP Conduit and Dublink Conduit. Backfill with CMSC 912 – Compacted Granular Material

B Maintain 1' clearance between edge of Vault and Conduit.

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

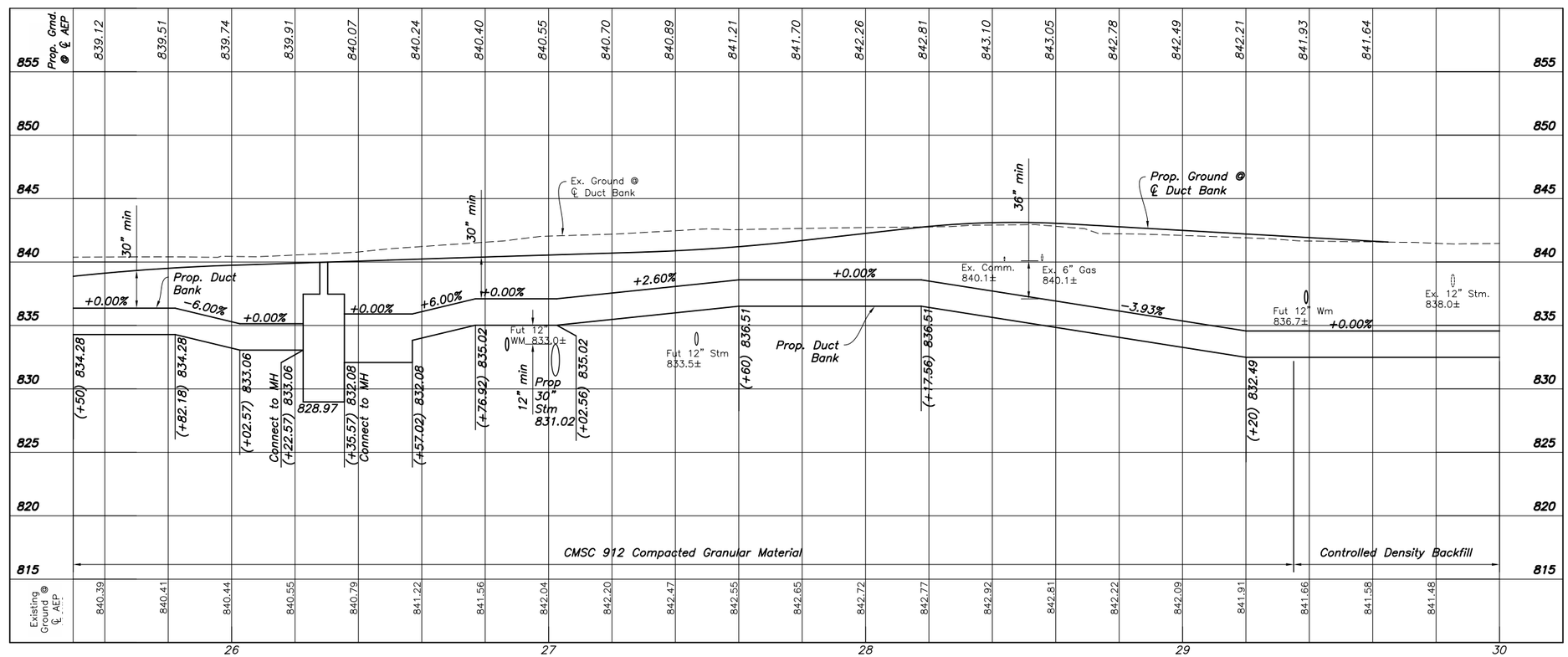
C Sta. 26+57.02

D Sta. 26+59.61

E Sta. 27+02.56

F Maintain 1' of concrete between edge of AEP Conduit and Dublink Conduit

Structure	AEP ℄		Dale–Tuller Connector ℄		T/C Elevation
	Station	Offset	Station	Offset	
E4 AEP Vault	26+29.07	0.00'	315+89.72	0.19' Rt	839.94
D4 Dublink Vault	27+34.03	7.36' Rt	316+94.74	5.46' Rt	840.75
S3 Switch Gear	27+27.46	52.07' Rt	316+88.97	50.26' Rt	



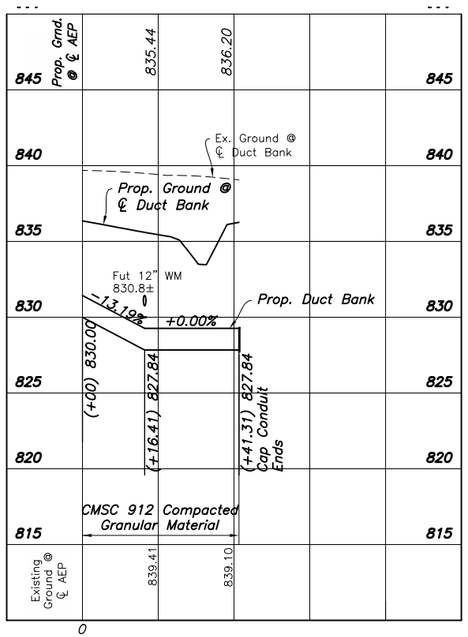
CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN STA. 25+50 TO STA. 30+00

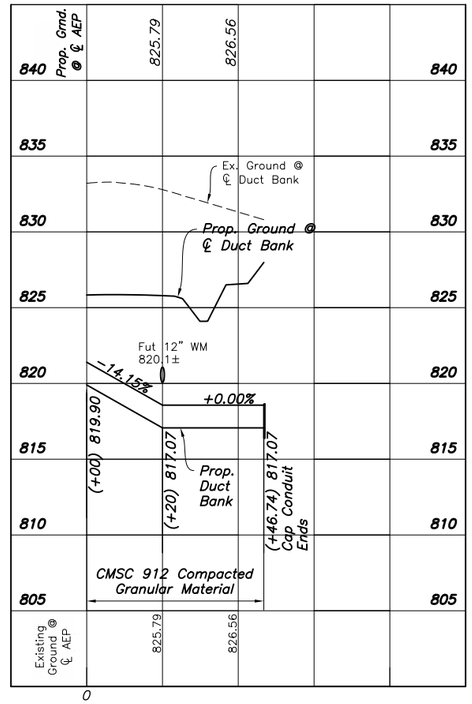
DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

[A] 5" X 90° X 36"R Elbows w/ concrete encasement

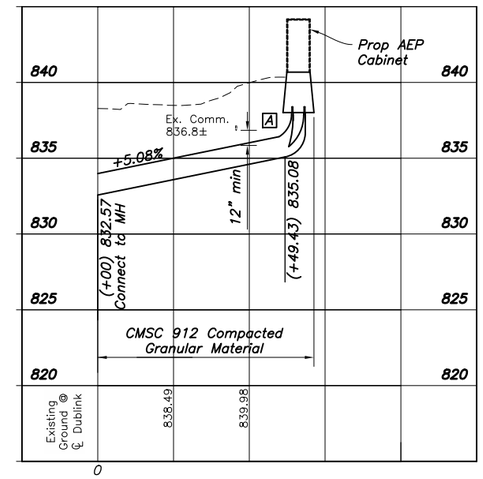
Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.



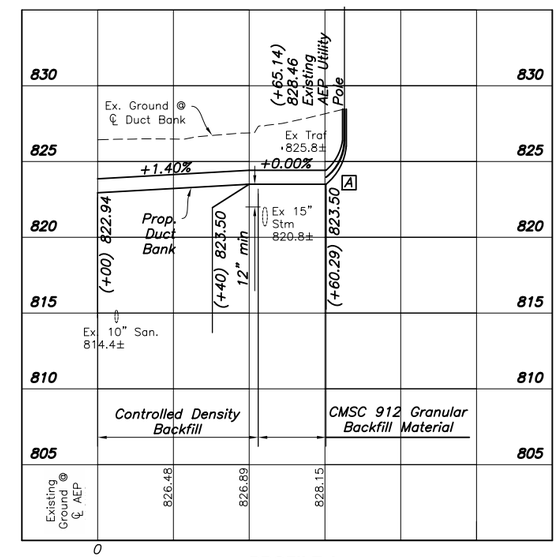
PROFILE G



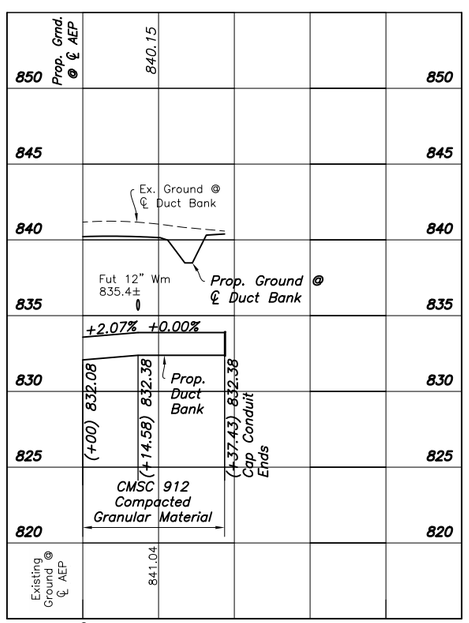
PROFILE D



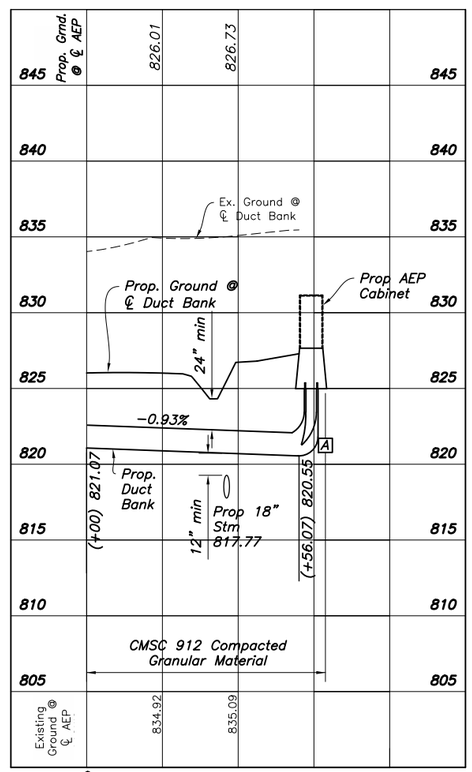
PROFILE C



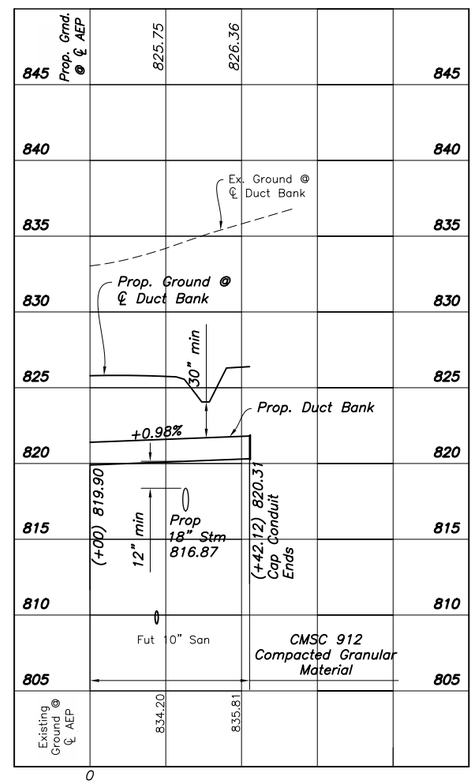
PROFILE A



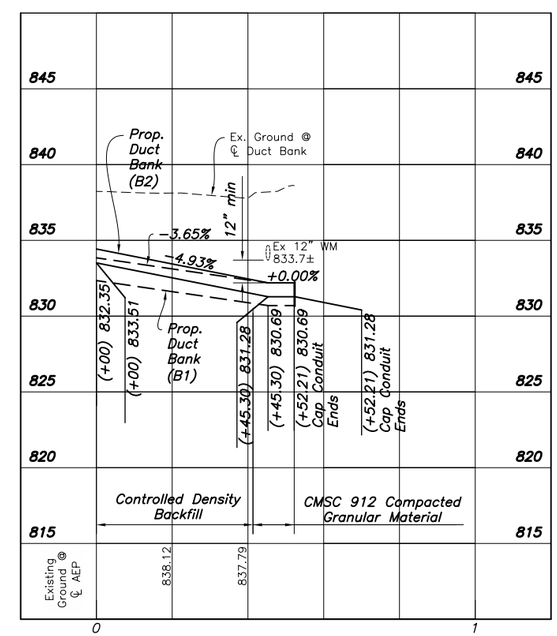
PROFILE H



PROFILE F



PROFILE E



PROFILE B

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

J:\2013045\1\Dwg\04Sheets\Temporary_Dale-Tuller_Connector\2014058AEP01.dwg Last Saved By: dvorck, 7/3/2014, 12:49 PM Last Printed By: Vance, David, 7/3/2014 12:52 PM
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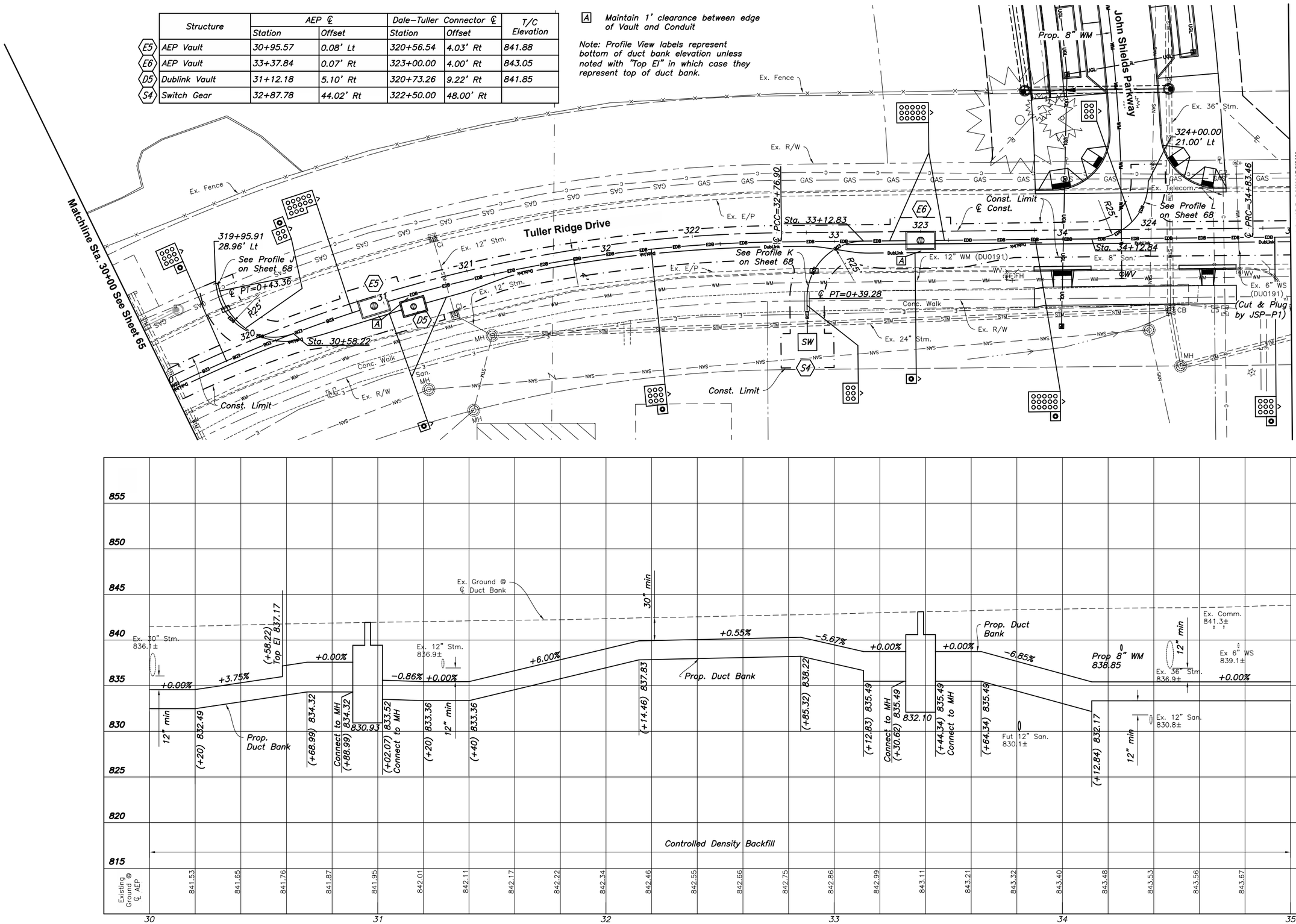
Structure		AEP ℄		Dale–Tuller Connector ℄		T/C Elevation
		Station	Offset	Station	Offset	
E5	AEP Vault	30+95.57	0.08' Lt	320+56.54	4.03' Rt	841.88
E6	AEP Vault	33+37.84	0.07' Rt	323+00.00	4.00' Rt	843.05
D5	Dublink Vault	31+12.18	5.10' Rt	320+73.26	9.22' Rt	841.85
S4	Switch Gear	32+87.78	44.02' Rt	322+50.00	48.00' Rt	

A Maintain 1' clearance between edge of Vault and Conduit

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.



CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN STA. 30+00 TO STA. 35+00

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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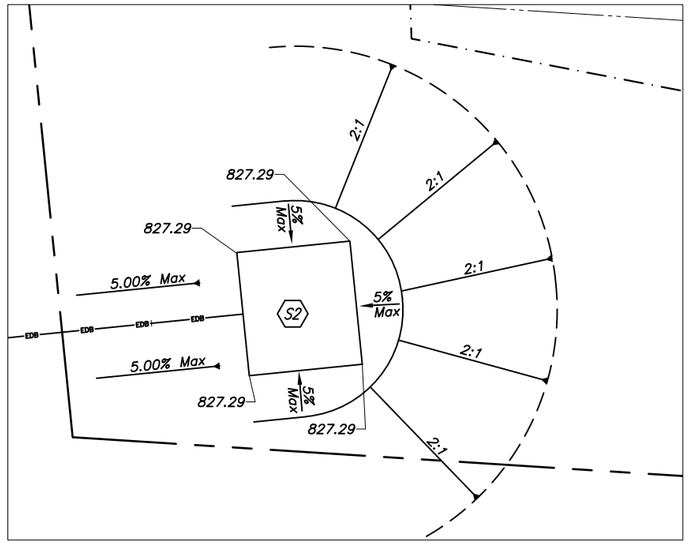
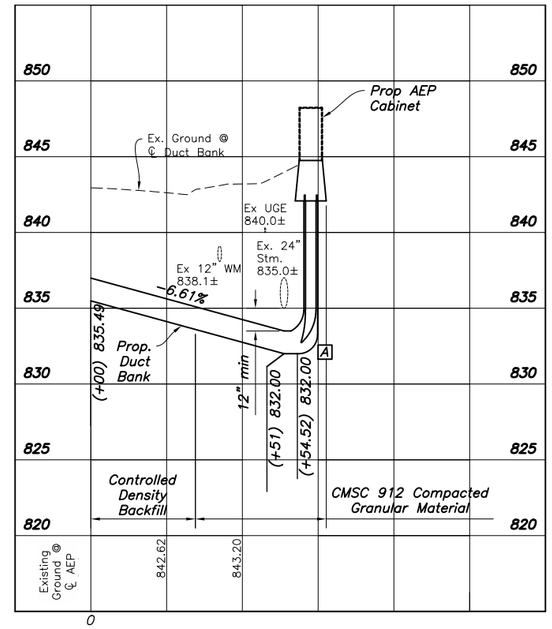
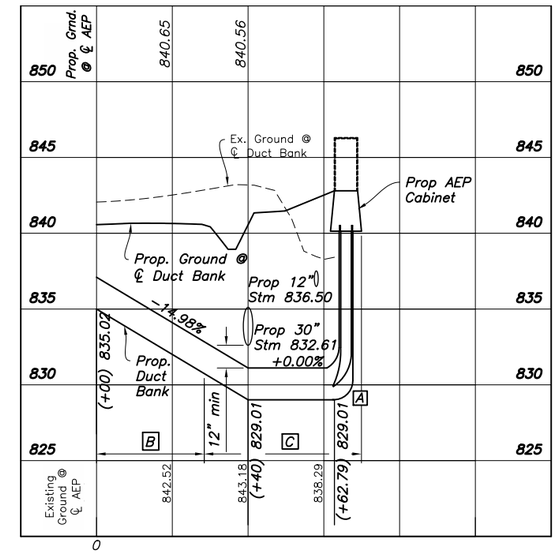


GRADING DETAIL FOR SWITCH GEAR 2

Scale: 1" = 5'



PROFILE K



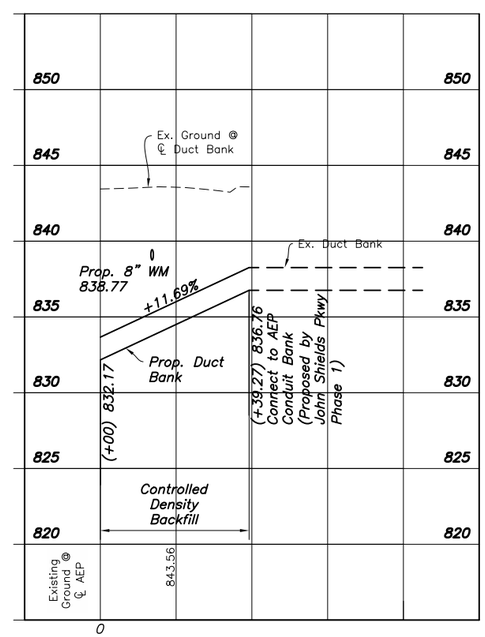
PROFILE I

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

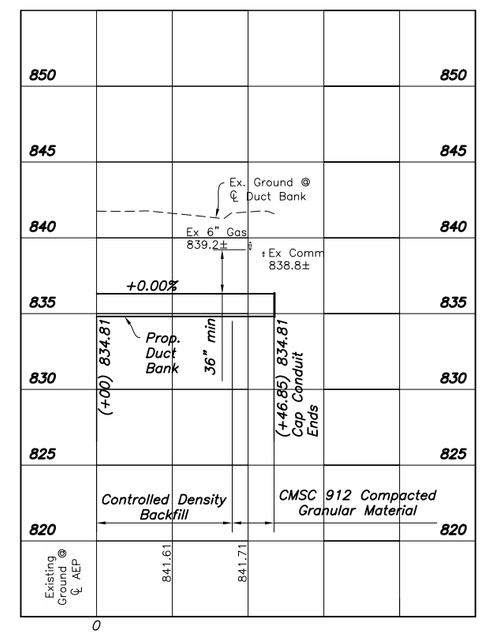
A 5" X 90° X 36"R Elbows w/ concrete encasement

B Controlled Density Backfill

C CMSC 912 Compacted Granular Material



PROFILE L



PROFILE J

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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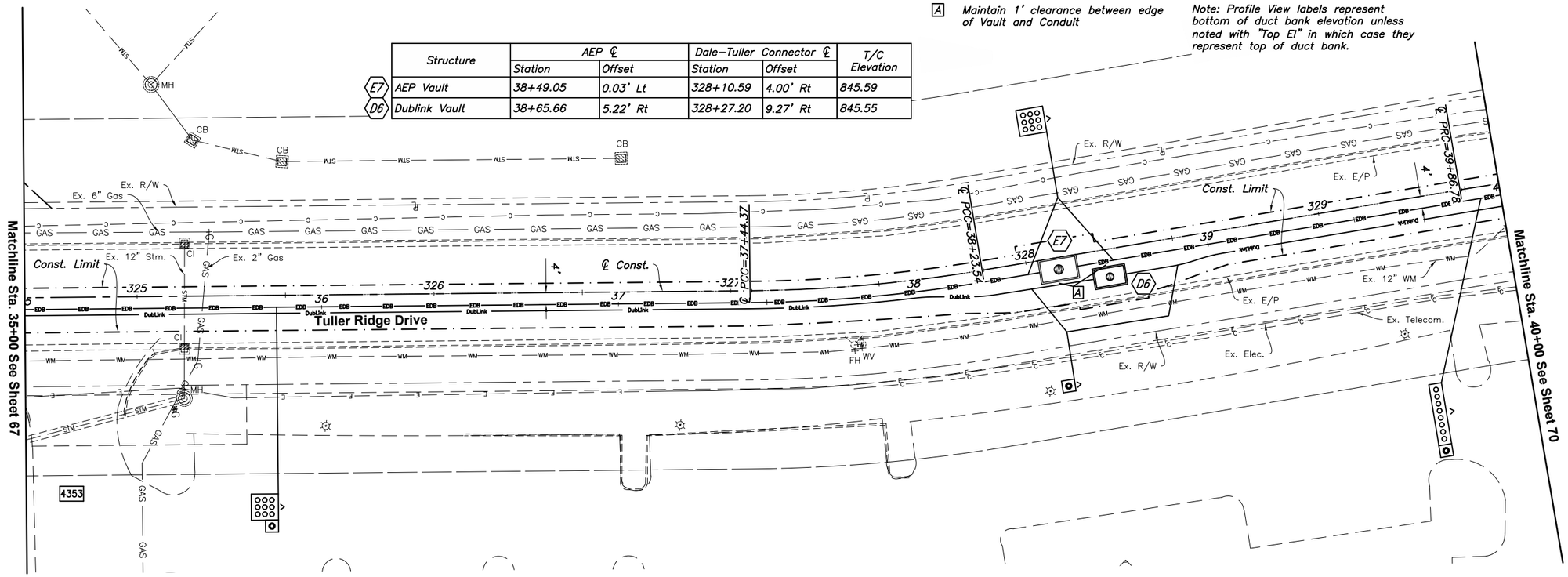
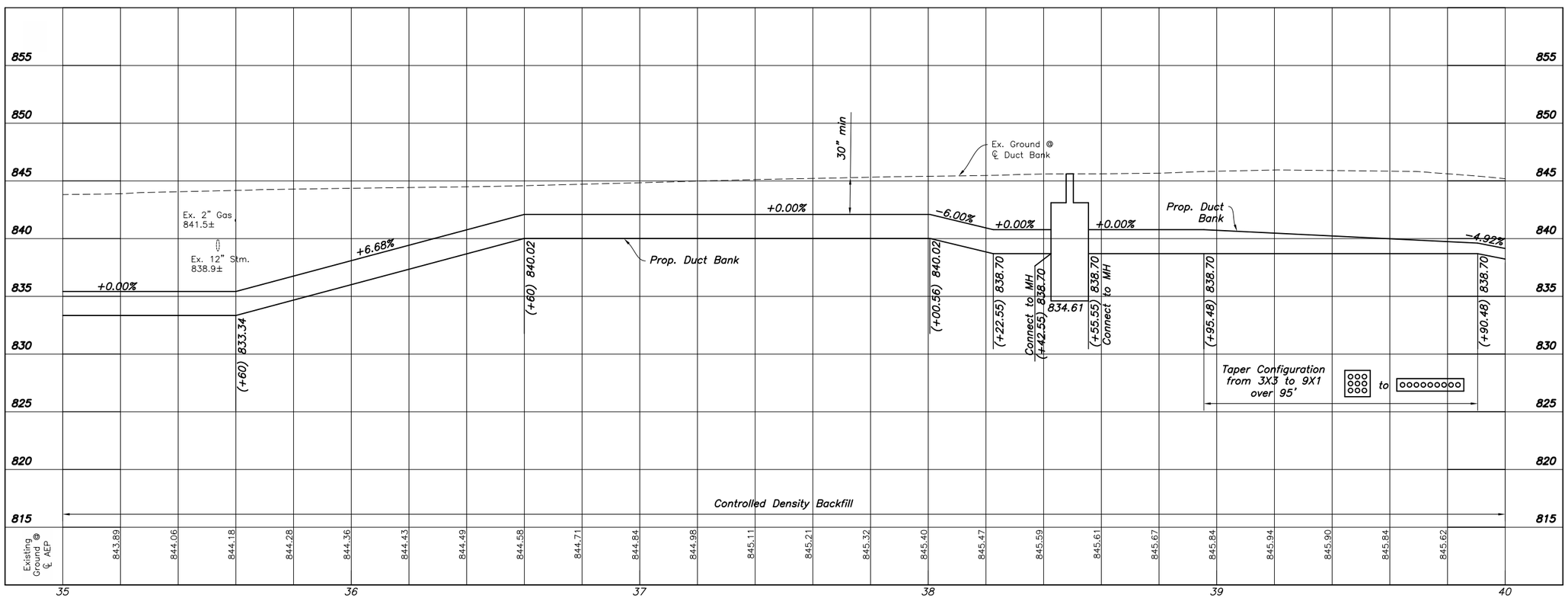
Structure	AEP ℄		Dale–Tuller Connector ℄		T/C Elevation
	Station	Offset	Station	Offset	
E7 AEP Vault	38+49.05	0.03' Lt	328+10.59	4.00' Rt	845.59
D6 Dublink Vault	38+65.66	5.22' Rt	328+27.20	9.27' Rt	845.55

A Maintain 1' clearance between edge of Vault and Conduit

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.





CALCULATED MJS
CHECKED MRB

Vert.: 1 inch = 5 feet
Horiz.: 1 inch = 20 feet

AEP AND DUBLINK PLAN STA. 35+00 TO STA. 39+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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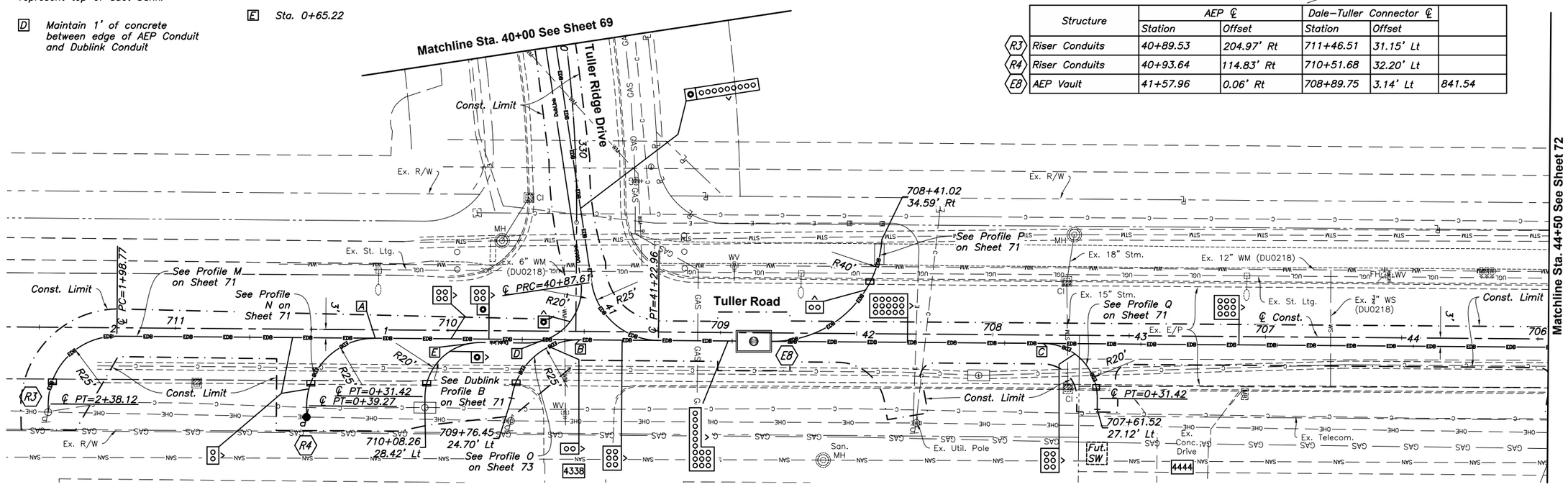
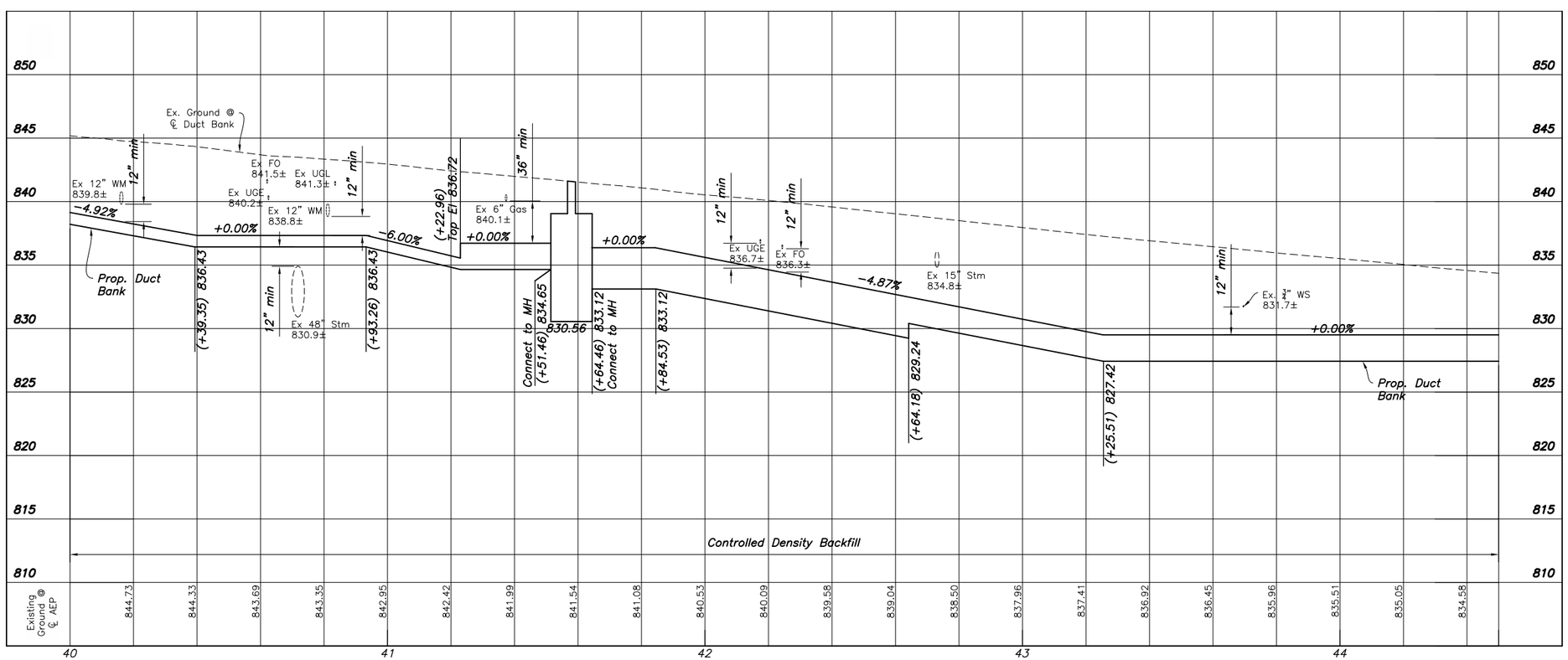
Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

[D] Maintain 1' of concrete between edge of AEP Conduit and Dublink Conduit

[A] Sta. 1+03.94
[B] Sta. 0+29.55
[C] Sta. 42+64.18
[E] Sta. 0+65.22

	Structure	AEP ℄		Dale–Tuller Connector ℄		
		Station	Offset	Station	Offset	
R3	Riser Conduits	40+89.53	204.97' Rt	711+46.51	31.15' Lt	
R4	Riser Conduits	40+93.64	114.83' Rt	710+51.68	32.20' Lt	
E8	AEP Vault	41+57.96	0.06' Rt	708+89.75	3.14' Lt	841.54





CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN
STA. 39+50 TO STA. 44+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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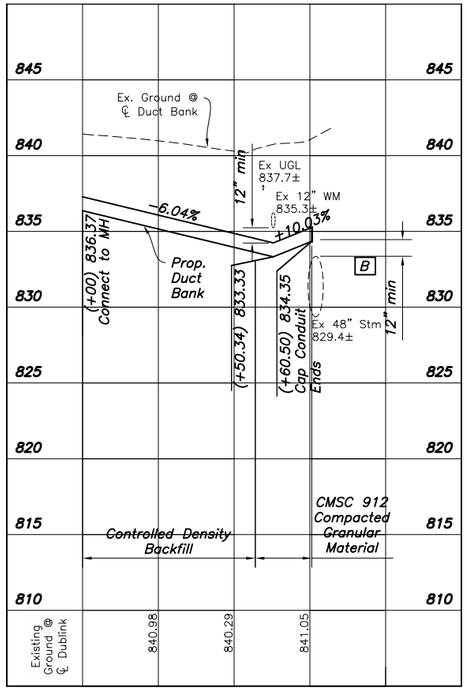
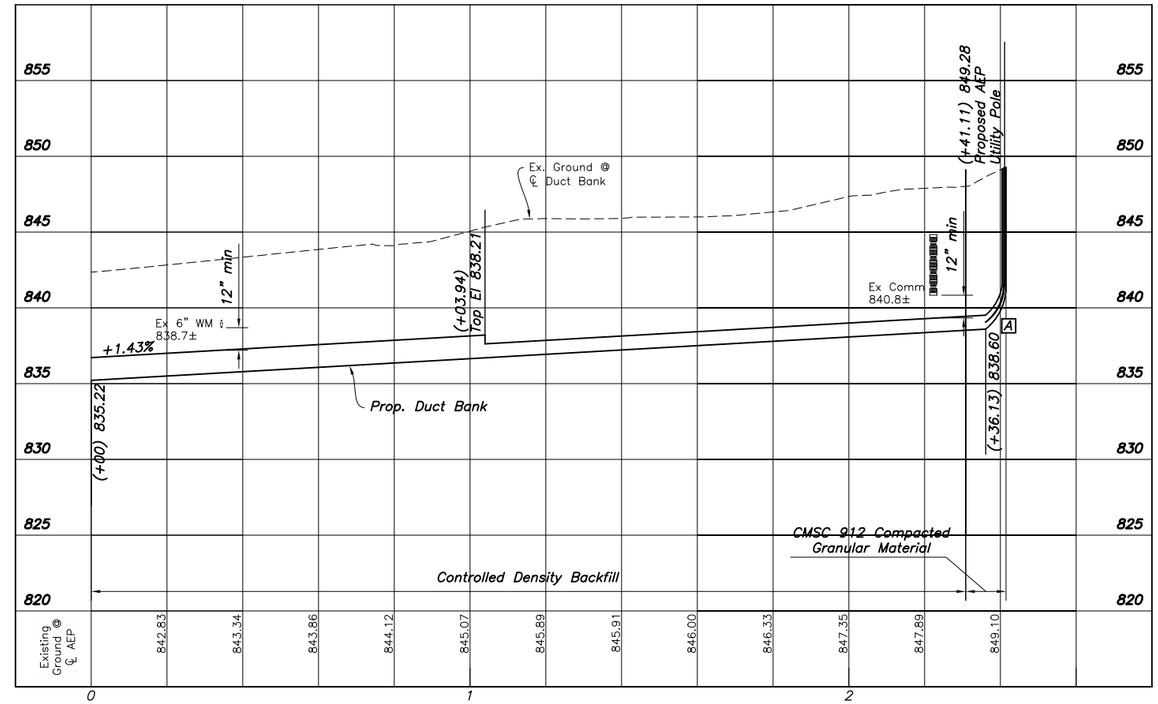
[A] 5" X 90° X 36"R Elbows w/ concrete encasement

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

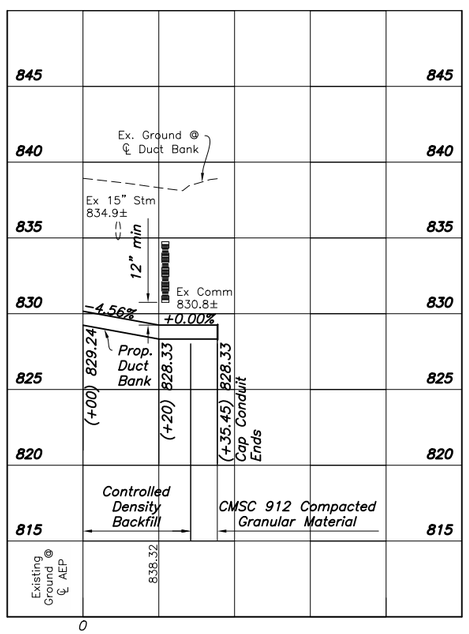
[B] Expose pipe to verify elevation.



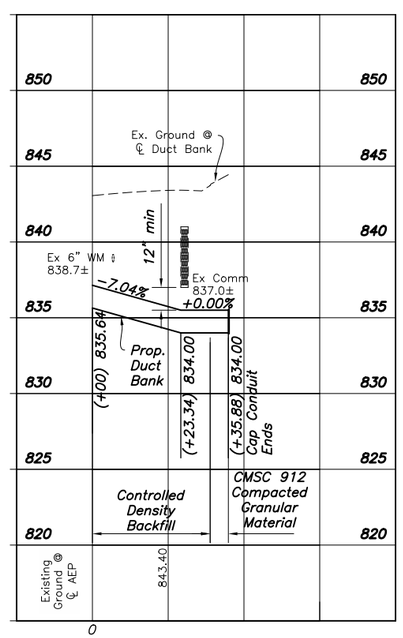
PROFILE P



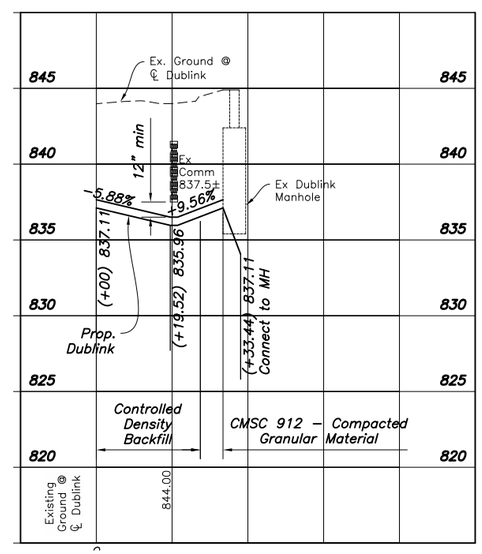
PROFILE M



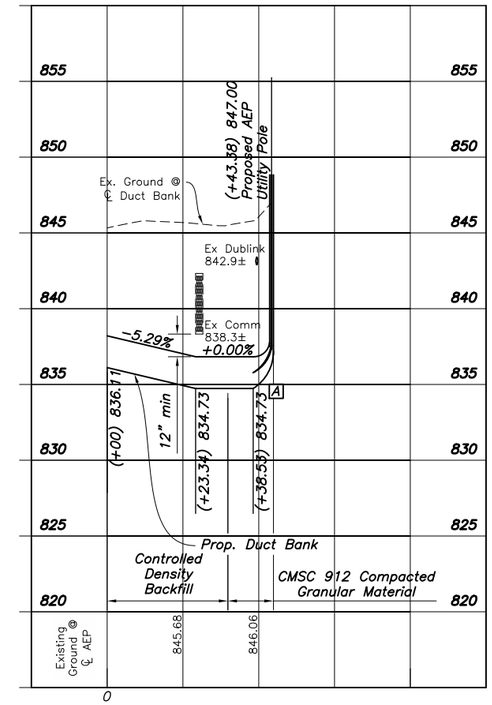
PROFILE Q



PROFILE O



DUBLINK PROFILE B



PROFILE N

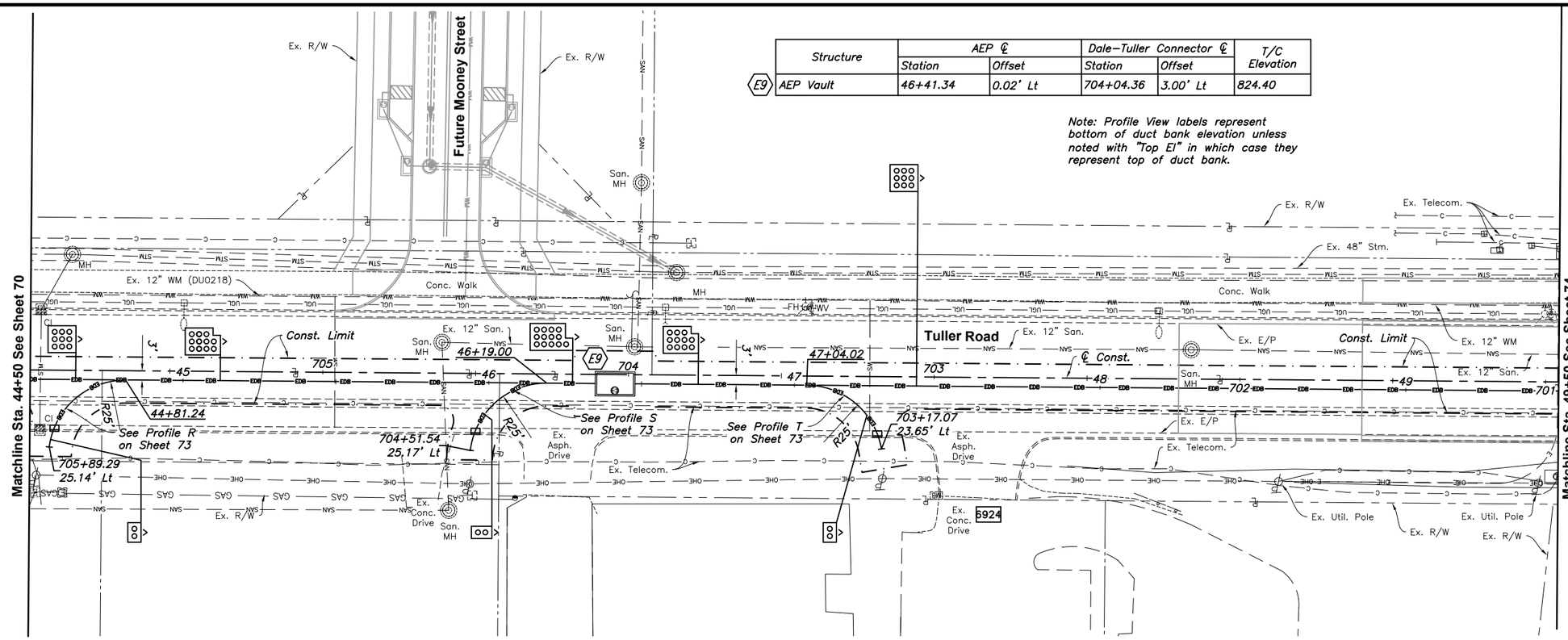
CALCULATED MJS
CHECKED MRB

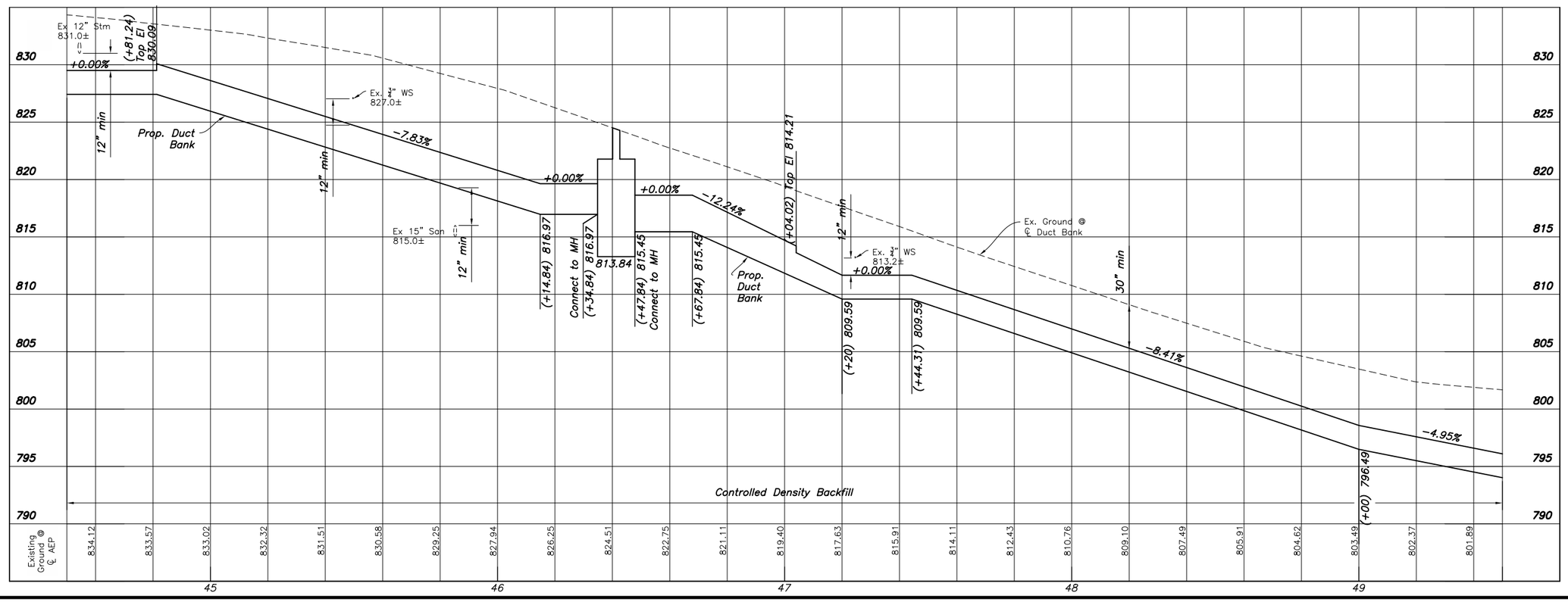
AEP AND DUBLINK PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

Structure	AEP ℄		Dale–Tuller Connector ℄		T/C Elevation
	Station	Offset	Station	Offset	
E9 AEP Vault	46+41.34	0.02' Lt	704+04.36	3.00' Lt	824.40

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

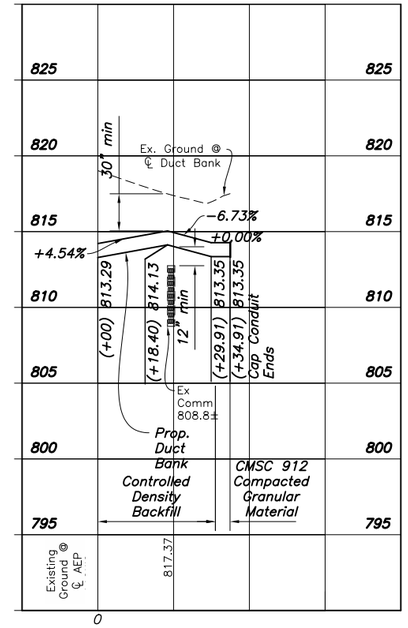




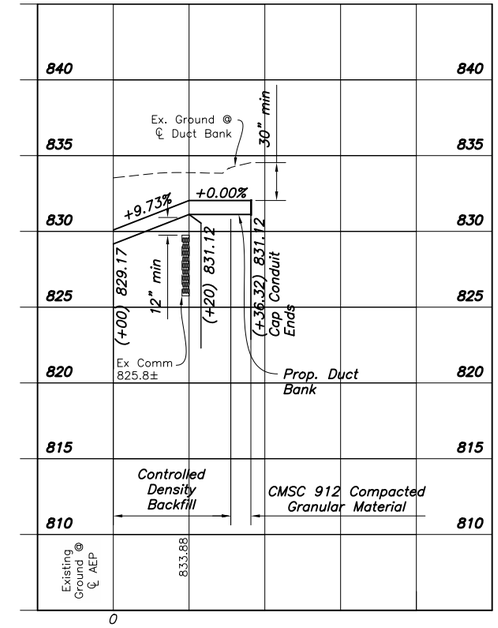
CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN STA. 44+50 TO STA. 49+50

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR



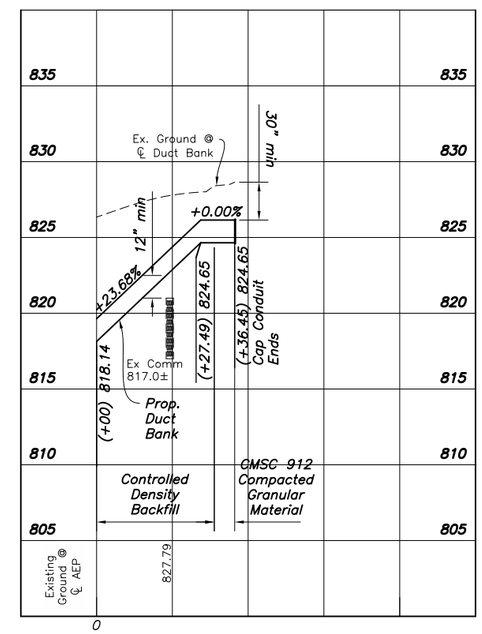
PROFILE T



PROFILE R

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

A 5" X 90° X 36"R Elbows w/ concrete encasement



PROFILE S

Vert: 1 inch = 5 feet
Horz: 1 inch = 20 feet

CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR

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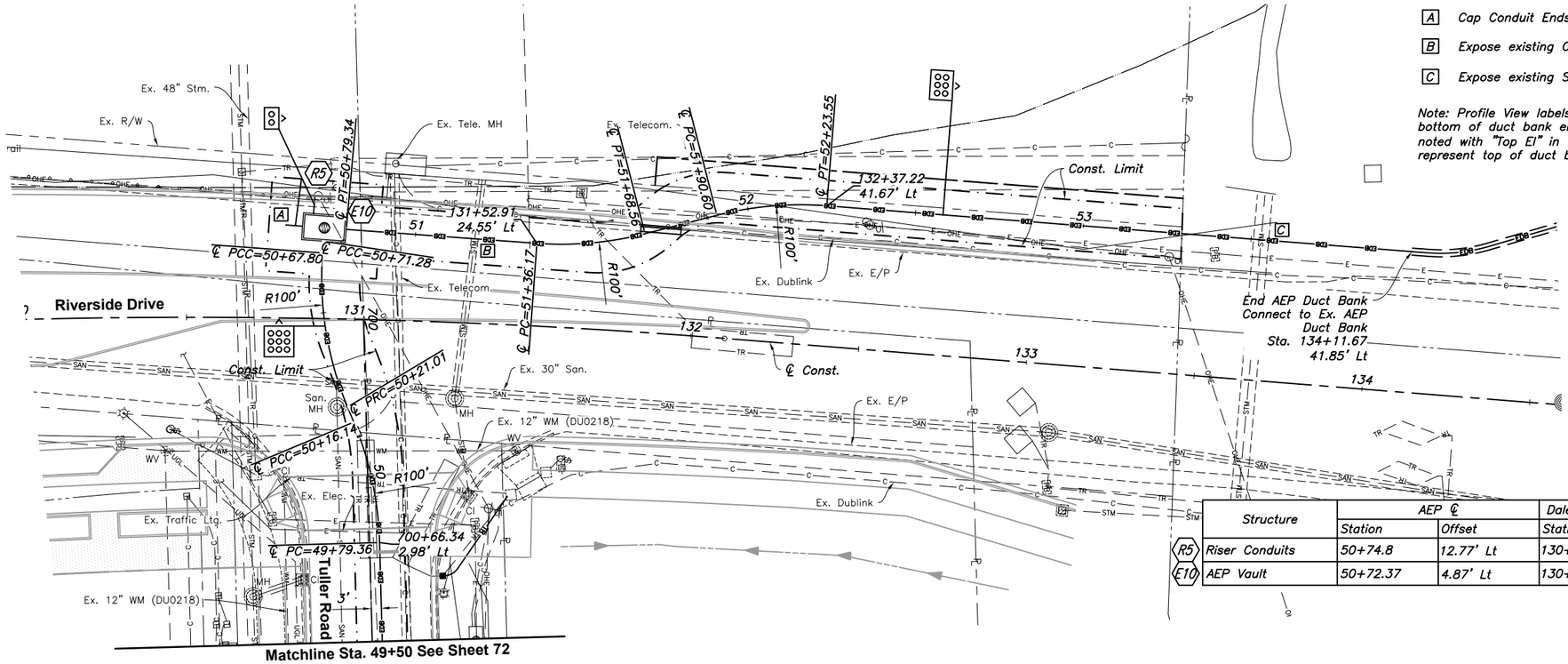


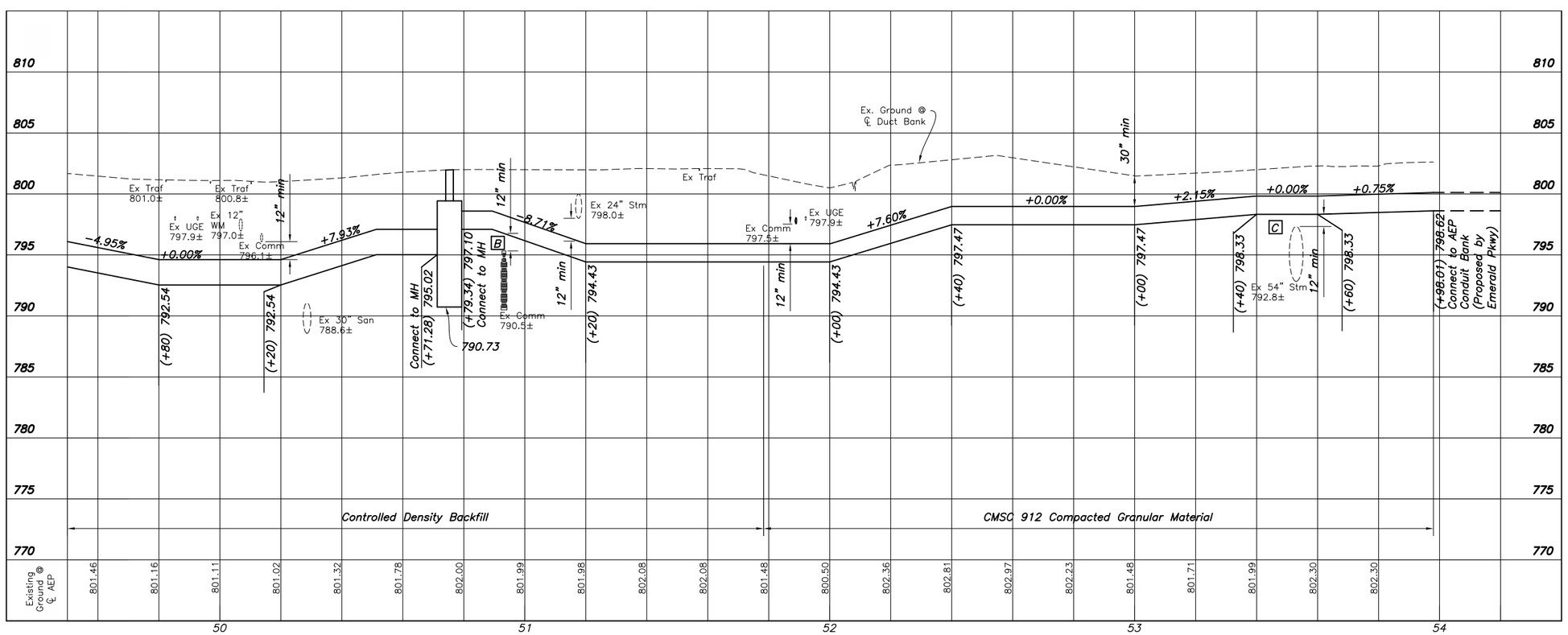
A Cap Conduit Ends

B Expose existing Communications to verify elevation

C Expose existing Storm to verify elevation

Note: Profile View labels represent bottom of duct bank elevation unless noted with "Top El" in which case they represent top of duct bank.

Structure	AEP ℄		Dale–Tuller Connector ℄		T/C Elevation
	Station	Offset	Station	Offset	
R5 Riser Conduits	50+74.8	12.77' Lt	130+88.44	36.38' Lt	
E10 AEP Vault	50+72.37	4.87' Lt	130+90.43	26.96' Lt	802.01



CALCULATED MJS
CHECKED MRB

AEP AND DUBLINK PLAN
STA. 49+50 TO STA. 53+23.30

DALE DRIVE - TULLER RIDGE DRIVE TEMPORARY CONNECTOR