STRUCTURE DATA TABLE

STR. No.	CASTING TYPE	CASTING ELEVATION	PIPE SIZE	INVERT IN	INVERT OUT	PIPE MATERIAL	NORTHING	EASTING
710	Manhole, 6' Dia.; R-1772	855.50	30" (S) 15" (SW) 30" (N)	843.94 (S) 843.94 (SW)	843.84 (N)	RCP RCP HDPE	1722294.68	200953.68
711	XCELERATOR XC-6	856.28	15" (NE)		843.97 (NE)	RCP	1722289.19	200948.00
712	Diversion Manhole, 7' Dia.; See Detail Sheet C603 R-1772	856.30	30" (S) 30" (N)	844.10 (S)	844.00 (N)	HDPE RCP	1722283.51	200953.55
713	INLET AM; R-3405	851.60	15" (E)		847.00 (E)	RCP	1722144.15	200883.68
714	MH 4' DIA; R-3405	851.50	24" (S) 12" (SW) 24" (N)	845.90 (S) 847.43 (SW)	845.80 (N)	RCP RCP RCP	1721942.51	200915.26
715	MH 4' DIA; R-3405	851.50	24" (S) 24" (N)	846.30 (S)	846.20 (N)	RCP RCP	1721882.72	200919.13
716	MH 4' DIA; R-3405	853.00	24" (S) 24" (N)	847.05 (S)	846.95 (N)	RCP RCP	1721745.71	200954.89
717	MH 5' DIA.;R-3405	853.00	24" (S) 12" (W) 24" (N)	847.40 (S) 849.30 (W)	847.30 (N)	RCP RCP RCP	1721696.18	200939.63
718	MH 4' DIA; R-3405	852.90	24" (SW) 24" (N)	848.00 (SW)	847.90 (N)	RCP RCP	1721585.40	200904.08
719	Manhole, 4' Dia.; R-1772	854.20	18" (SW) 12" (NW) 24" (NE)	848.50 (SW) 849.00 (NW)	848.40 (NE)	RCP RCP RCP	1721511.34	200829.39
720	MH 4' DIA; R-3405	852.90	12" (NW) 18" (NE)	849.00 (NW)	848.90 (NE)	RCP RCP	1721436.95	200753.50
721	Manhole, 4' Dia.; R-1772	854.10	12" (NW) 12" (SW) 12" (SE)	850.50 (NW) 849.50 (SW)	849.40 (SE)	HDPE RCP RCP	1721471.23	200686.53
722	Manhole, 4' Dia.; R-1772	854.80	12" (NE)		849.90 (NE)	RCP	1721421.66	200633.60
723	MH 4' DIA; R-3405	853.50	12" (NW) 12" (NE)	848.90 (NW)	848.50 (NE)	RCP RCP	1721916.08	200854.76
724	INLET AM; R-3405	853.00	12" (SE)		849.50 (SE)	RCP	1721952.92	200817.76

STRUCTURE DATA TABLE

STR. No.	CASTING TYPE	CASTING ELEVATION	PIPE SIZE	INVERT IN	INVERT OUT	PIPE MATERIAL	NORTHING	EASTING
725	MH 4' DIA; R-3405	854.75	12" (NW) 12" (E)	849.90 (NW)	849.80 (E)	HDPE RCP	1721679.95	200890.73
726	24 inch Nyloplast Structure, Open Grate	855.10	12" (SE)		851.10 (SE)	HDPE	1721725.07	200840.94
727	MH 4' DIA; R-3405	854.00	12" (NW) 12" (NE) 12" (SE)	849.70 (NW) 849.70 (NE)	849.60 (SE)	HDPE HDPE RCP	1721579.47	200759.32
728	24 inch Nyloplast Structure, Open Grate	854.00	12" (SW)		850.00 (SW)	HDPE	1721619.53	200795.36
729	24 inch Nyloplast Structure, Open Grate	854.30	12" (SE)		850.30 (SE)	HDPE	1721617.02	200721.84
730	24 inch Nyloplast Structure, Open Grate	855.10	12" (SE)		851.10 (SE)	HDPE	1721521.60	200632.25
731	MH 5' DIA.;R-1772	855.90	24" (S) 15" (W) 30" (N)	844.70 (S) 846.50 (W)	844.60 (N)	RCP RCP HDPE	1722144.24	200954.32
732	Manhole, 6' Dia.; R-1772	854.85	30" (W) 15" (NW) 30" (E)	843.93 (W) 843.93 (NW)	843.83 (E)	RCP RCP HDPE	1722381.74	200674.59
733	XCELERATOR XC-5	854.85	15" (SE)		843.96 (SE)	RCP	1722385.54	200667.55
734	Manhole, 6' Dia.; R-1772	854.50	30" (SW) 12" (N) 30" (E)	844.29 (SW) 848.00 (N)	844.19 (E)	RCP RCP HDPE	1722369.74	200631.65
735	MH 4' DIA.;R-1772	854.60	12" (NE) 12" (S)	848.75 (NE)	848.15 (S)	RCP RCP	1722378.52	200632.26
736	INLET AM; R-3405	854.00	12" (SW)		850.00 (SW)	RCP	1722406.43	200689.84
742	Diversion Manhole, 7' Dia.; See Detail Sheet C603 R-1772	854.70	30" (W) 30" (E)	844.09 (W)	843.99 (E)	HDPE RCP	1722378.49	200663.76
743	MH 4' DIA.; R-3010	851.50	24" (W) 30" (NE)	844.88 (W)	844.78 (NE)	RCP RCP	1722253.51	200514.72
744	INLET M; R-3010	852.00	12" (E)		848.30 (E)	RCP	1722220.24	200385.44

STRUCTURE DATA TABLE

STR. No.	CASTING TYPE	CASTING ELEVATION	PIPE SIZE	INVERT IN	INVERT OUT	PIPE MATERIAL	NORTHING	EASTING
745	Manhole, 4' Dia.; R-1772	852.75	24" (S) 12" (W) 24" (E)	845.60 (S) 848.15 (W)	845.50 (E)	RCP RCP RCP	1722220.16	200413.67
746	INLET M; R-3010	852.20	12" (E)		848.50 (E)	RCP	1721963.32	200364.63
747	MH 4' DIA.; R-3010	851.75	24" (S) 24" (N)	847.30 (S)	847.20 (N)	RCP RCP	1721866.35	200415.68
748	Manhole, 5' Dia.; R-1772	854.20	18" (NE) 18" (S) 12" (W) 24" (N)	849.50 (NE) 848.08 (S) 848.03 (W)	847.98 (N)	RCP RCP RCP RCP	1721677.74	200428.99
749	MH 4' DIA.; R-3010	852.50	15" (S) 18" (N)	848.37 (S)	848.27 (N)	RCP RCP	1721619.51	200411.11
750	Manhole, 4' Dia.; R-1772	852.70	12" (S) 12" (NE) 15" (N)	848.55 (S) 848.48 (NE)	848.45 (N)	RCP RCP RCP	1721596.31	200410.44
751	Manhole, 4' Dia.; R-1772	853.20	12" (SE) 12" (E) 12" (N)	848.75 (SE) 848.67 (E)	848.65 (N)	RCP RCP RCP	1721566.34	200409.56
752	Manhole, 4' Dia.; R-1772	854.70	12" (S) 12" (NW)	849.20 (S)	849.10 (NW)	RCP RCP	1721492.00	200493.56
753	INLET M; R-3010	853.10	12" (N)		849.40 (N)	RCP	1721431.70	200516.17
756	MH 4' DIA.; R-3010	851.30	24" (S) 12" (W) 12" (E) 24" (N)	846.80 (S) 848.30 (W) 847.15 (E)	846.70 (N)	RCP RCP RCP RCP	1721961.60	200412.88
757	INLET M; R-3010	851.30	12" (W)		847.30 (W)	RCP	1721960.43	200422.68
758	Manhole, 4' Dia.; R-1772	855.00	15" (SW)		850.70 (SW)	RCP	1721722.87	200505.61
759	INLET AM; R-3405	854.50	15" (NE) 18" (SW)	850.50 (NE)	850.40 (SW)	RCP RCP	1721706.01	200489.24
760	INLET M; R-3010	852.25	12" (E)		848.40 (E)	RCP	1721694.90	200363.69
761	INLET AM; R-3405	851.80	12" (SW)		848.77 (SW)	RCP	1721643.37	200455.38

STRUCTURE DATA TABLE

STR. No.	CASTING TYPE	CASTING ELEVATION	PIPE SIZE	INVERT IN	INVERT OUT	PIPE MATERIAL	NORTHING	EASTING
762	MH 4' DIA; R-3405	854.80	12" (W)		848.80 (W)	RCP	1721575.20	200437.02
770	Manhole, 6' Dia.; R-1772	854.20	30" (S) 15" (SW) 30" (N)	843.94 (S) 843.94 (SW)	843.84 (N)	RCP RCP HDPE	1722315.25	200799.28
771	XCELERATOR XC-6	854.10	15" (NE)		843.97 (NE)	RCP	1722309.87	200793.58
772	Diversion Manhole, 7' Dia.; See Detail Sheet C603 R-1772	854.00	30" (S) 30" (N)	844.10 (S)	844.00 (N)	HDPE RCP	1722304.04	200799.05
773	MH 5' DIA.;R-3405	851.00	24" (W) 30" (N)	844.52 (W)	844.42 (N)	RCP HDPE	1722200.58	200780.08
775	MH 5' DIA.; R-3010	851.00	18" (SW) 12" (SE) 24" (N)	846.15 (SW) 846.05 (SE)	846.05 (N)	RCP RCP RCP	1722000.46	200681.31
776	MH 4' DIA.; R-3010	852.55	12" (SE) 15" (SW) 18" (NE)	848.55 (SE) 846.62 (SW)	846.52 (NE)	HDPE RCP RCP	1721945.14	200625.28
777	MH 4' DIA.; R-3010	851.90	12" (S) 15" (NE)	847.80 (S)	846.85 (NE)	RCP RCP	1721919.45	200599.50
778	MH 4' DIA.; R-3010	852.40	12" (SE) 12" (N)	848.40 (SE)	848.30 (N)	HDPE RCP	1721862.39	200582.47
779	24 inch Nyloplast Structure, Open Grate	854.10	12" (NW)		850.10 (NW)	HDPE	1721815.51	200624.38
780	MH 4' DIA; R-3405	851.00	24" (SW) 12" (NW) 24" (E)	845.05 (SW) 845.60 (NW)	844.95 (E)	RCP RCP RCP	1722200.22	200674.40
781	MH 6' DIA; R-3010	851.00	24" (S) 12" (W) 12" (SW) 24" (NE)	845.40 (S) 846.24 (W) 845.40 (SW)	845.30 (NE)	RCP RCP RCP RCP	1722135.57	200630.20
782	MH 4' DIA.; R-3010	851.00	12" (SE) 12" (NE)	846.60 (SE)	846.50 (NE)	RCP RCP	1722022.91	200515.78
783	INLET M; R-3010	851.50	12" (SE)		847.50 (SE)	RCP	1722260.74	200598.13
784	MH 4' DIA.; R-3010	851.00	12" (W) 12" (E)	846.80 (W)	846.70 (E)	RCP RCP	1722131.66	200551.02

STRUCTURE DATA TABLE

STR. No.	CASTING TYPE	CASTING ELEVATION	PIPE SIZE	INVERT IN	INVERT OUT	PIPE MATERIAL	NORTHING	EASTING
A	Drop Manhole, 4' Dia.; R-1772	854.50	8" (NE) 8" (S) 12" (E) 12" (W)	843.08 (NE) 841.59 (S)	828.92 (E) 828.80 (W)	PVC PVC PVC PVC	1721737.99	200396.05
B	Manhole, 4' Dia.; R-1772	852.85	8" (SW)		847.00 (SW)	PVC	1721844.37	200564.12
C	Manhole, 4' Dia.; R-1772	853.13	8" (S) 8" (N)	842.47 (S)	842.37 (N)	PVC PVC	1721582.27	200396.05
D	Manhole, 4' Dia.; R-1772	854.28	8" (SE) 8" (N)	843.34 (SE)	842.80 (N)	PVC PVC	1721514.57	200396.05
E	Manhole, 4' Dia.; R-1772	852.94	8" (NE) 8" (NW)	844.75 (NE)	844.65 (NW)	PVC PVC	1721393.67	200626.97
F	Manhole, 4' Dia.; R-1772	854.44	8" (SW)		846.88 (SW)	PVC	1721695.92	200928.18

UTILITY NOTES

1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR CONTINUATION OF UTILITIES WITHIN 5 FEET OF STRUCTURES.
2. PRESSURE UTILITY MAINS AND SERVICE LINES MAY NEED TO BE INSTALLED AT A DEPTH GREATER THAN THAT SPECIFIED OR SHOWN ON THE DRAWINGS TO CLEAR EXISTING AND PROPOSED CROSSING UTILITIES. IN SUCH CASES, THE CONTRACTOR SHALL INSTALL VERTICAL BENDS AS REQUIRED TO ACHIEVE APPROPRIATE CLEARANCE BETWEEN THE CROSSING UTILITIES.
3. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET BETWEEN WATER LINES AND SEWERS SHALL BE MAINTAINED AT ALL TIMES. A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN WATER LINES AND SEWERS SHALL BE MAINTAINED AT CROSSINGS. IN THE EVENT THAT MINIMUM SEPARATION REQUIREMENTS CANNOT BE MET, THE CONTRACTOR SHALL UTILIZE PRESSURE-TYPE WATER PIPE FOR THE SEWER PER CITY OF CARMEL STANDARDS.
4. WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 54 INCHES OF COVER AS MEASURED FROM THE TOP OF THE PIPE TO THE FINAL FINISH GRADE ABOVE THE PIPE.
5. THRUST BLOCKS OR JOINT RESTRAINTS SHALL BE INSTALLED ON ALL WATER LINES AT ALL BENDS, TEES AND HYDRANTS PER THE DETAILS.
6. WHERE WATER FITTINGS ARE REQUIRED, DUCTILE IRON (DI) FITTINGS SHALL BE USED. FITTING JOINTS SHALL BE OF STANDARD MJ TYPE (ANSI/AWWA C111/A21.11) OR PJ TYPE (ANSI/AWWA C111/A21.11).
7. DI FITTINGS SHALL CONFORM TO ANSI/AWWA C110/A21.10, 350 PSI AND SHALL BE CEMENT MORTAR LINED PER ANSI/AWWA C104/A21.4 AND SHALL BE OUTSIDE COATED WITH A BITUMINOUS COATING.
8. PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER TO CENTER OF STRUCTURES ROUNDED TO THE NEAREST FOOT.
9. PIPE LENGTHS SHOWN FOR STORM SEWERS ARE MEASURED TO THE DOWNSTREAM END OF END SECTIONS.
10. WHERE GRADE MODIFICATIONS (CUT OR FILL) ARE SHOWN ADJACENT TO EXISTING VALVE BOX COVERS AND MANHOLE CASTINGS, THE VALVE BOX COVERS AND MANHOLE CASTINGS SHALL BE ADJUSTED FLUSH WITH THE PROPOSED GRADE.
11. ADJUSTMENTS OF EXISTING MANHOLE CASTINGS TO GRADE TO A MAXIMUM OF 12 INCHES SHALL BE MADE USING PRECAST CONCRETE ADJUSTING RINGS PROVIDED THE TOTAL HEIGHT OF EXISTING AND NEW ADJUSTING RINGS DOES NOT EXCEED 12 INCHES.
12. ADJUSTMENTS OF CASTINGS WHERE THE TOTAL HEIGHT OF ADJUSTING RINGS WOULD EXCEED 12 INCHES SHALL BE MADE BY REPLACING THE CONE AND/OR BARREL SECTION OF THE STRUCTURE.
13. PAVEMENTS, WALKS, CURBS AND OTHER SURFACE IMPROVEMENTS REQUIRING REMOVAL FOR INSTALLATION OF UNDERGROUND UTILITIES SHALL BE RESTORED TO THEIR PRESENT CONDITION UNLESS OTHERWISE SHOWN.
14. ALL INLET CASTINGS LOCATED WITHIN ASPHALT PAVEMENT AREAS SHALL INCLUDE A CONCRETE PAVED COLLAR EXTENDING A MINIMUM OF 24 INCHES IN ALL DIRECTIONS FROM THE EDGE OF THE CASTING PER THE DETAILS.
15. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS, ETC. WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNER, UTILITY COMPANIES, AND GOVERNING AUTHORITIES. THE CONTRACTOR SHALL INSTALL AS NECESSARY, TEMPORARY SITE LIGHTING, GAS, SANITARY, WATER, STORM, ELECTRIC, TELEPHONE, AND CABLE SERVICES TO SERVICE BUILDING(S) TO REMAIN OPEN.
16. CONTRACTOR TO PROVIDE SLEEVES UNDER FOOTINGS OR THROUGH FOUNDATIONS FOR UTILITY CONNECTIONS.
17. CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC. AS REQUIRED FOR PIPE CONNECTIONS TO BUILDING/CANOPY STUB OUTS. INCLUDING ROOF/FOOTING DRAIN CONNECTIONS TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM.
18. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT FOR SITE LIGHTING PER SITE LIGHTING PLAN (BY OTHERS).
19. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT FOR IRRIGATION PER IRRIGATION PLAN (BY OTHERS).
20. CONTRACTOR WILL BE RESPONSIBLE TO REPAIR, REPLACE, AND/OR RECONNECT ANY EXISTING DRAINAGE TILES NOT SHOWN ON THE PLANS, WHICH CROSS THROUGH EXCAVATED TRENCHES. ANY DRAINAGE TILE ENCOUNTERED IS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND A MEASUREMENT TAKEN FROM THE NEAREST MANHOLE OR INLET STRUCTURE TO THE CENTERLINE OF THE TILE.
21. CONTRACTOR SHALL COORDINATE DEMO, RETIREMENT OF EXISTING LINE, NEW SERVICE LINE & METER. CONTACT 1-800-990-1930 AND / OR NEW SERVICE @ VECTREN.COM
22. ALL INLETS WITHIN PAVED AREAS SHALL INCLUDE AT LEAST TWO 20-FOOT SUBSURFACE DRAINS SET 1.5 FEET BELOW THE TOP OF CASTING.

CARMEL CLAY SCHOOLS
CARMEL, INDIANA

A&F ENGINEERING
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PROJECT:
NEW ELEMENTARY SCHOOLS
FOR
CARMEL CLAY SCHOOLS
CARMEL, INDIANA

Scope Drawings:

These drawings indicate the general scope of the project in terms of architectural design, concept, the dimensions of the building, the major architectural elements and the type of structure, mechanical and electrical systems.

The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.

On the basis of the general scope indicated or described, the trade contractors shall furnish all items required for the proper execution and completion of the work.

Revisions:

Rev. #	Revision Description	Issue Date
1	TAC COMMENTS	12/20/2019

Issue Date	Drawn By	Checked By
11-19-19	SO	MK

Drawing Title:
STRUCTURE DATA TABLE

Certified By:
PAUL M. NASHETT
REGISTERED
No. 11500626
STATE OF INDIANA
PROFESSIONAL ENGINEER

Drawing Number:
C500

Project Number:
18094

Z:\2019\19012L - CSO, CARMEL ELEMENTARY SCHOOLS (18982L)\DWGS\C-501-UTILITY PLAN.DWG plotted by STEVEN O'ROURKE on 12/19/2019 5:41:11 PM last saved by SOROURKE on 12/19/2019 5:40:39 PM
Xrefs: X36X24E.DWG & 19012L BASE TOPO.DWG & 19012L BASE SITE.DWG & CONTEXT-BASE.DWG