



CALIFORNIA'S
COALITION
for ADEQUATE
SCHOOL HOUSINGSM

www.cashnet.org

C.A.S.H. WORKSHOP
Plan Verification Team (PVT)

Tuesday, December 8, 2009

9:00 a.m. to 12:30 p.m.

Doubletree Hotel
2001 Point West Way
Sacramento, California

ROLE OF THE PLAN VERIFICATION TEAM:

What Districts Need to Know to Ensure
a Streamlined Review of Project Applications

IAN KNUTILA

Office of Public School Construction

CALIFORNIA'S COALITION *for* ADEQUATE SCHOOL HOUSING

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Handout materials are available online after the workshop. To download the materials, visit www.cashnet.org/meetings and click on the link labeled "Workshop and Conference Handouts."

OPSC/PVT WORKSHOP

ADDITIONAL GRANT FOR SITE DEVELOPMENT COSTS



Presented by the PVT

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PVT WORKSHOP

What is the Plan Verification Team at OPSC?

1. A team of individuals whose mission is to verify the requested quantity and costs of applications received at OPSC for funding.
2. Working to foster a better relationship with the School Districts, Architects, and Cost Estimators we work with.
3. Prevent abuses and ensure that the School Facility Program Regulations are adhered to.
4. Work with a total of eleven different funding programs within the OPSC. These include, but are not limited to: New Construction, Modernization, Career Tech, Overcrowded Relief Grant, and Facility Hardship.

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OVERVIEW

School Facility Program - Additional Site Development Grant Overview

1. Base Grant vs. Additional Site Development Grant Understanding the Site Development Regulations
2. Regulation 1859.76. Government Regulations
3. Supporting Documentation
4. Site Development Worksheet for Additional Grants and What Makes a Good Cost Estimate
5. PVT's Review Process

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Base Grant vs Additional Site Development Grant

In order to provide the School Districts with basic overview of what is considered in the "base" grant versus the "additional" grant, OPSC has outlined eligible items in each category. Keep in mind that this information is provided to give a sense of eligible items. However, it is not limited to only items as shown. If you are unclear and need further assistance, please contact Plan Verification Team.

BASE GRANT		
DESIGN	GENERAL SITE	BUILDING
Including but not limited to: Architect Fee Engineer Fee Consultant Fee Plan Check Fee Permit Fee	Including but not limited to: Finish Grading Roads & Driveways Sidewalks, Stairs, & Ramps Parking Area Curbs & Gutters Turfed/Paved Play Area Playground Equipment Surface Drains at Play Area V-Gutters at Parking Lot Landscaping & Irrigation System Site Lighting Fencing & Outdoor Walls Site Utilities	Including but not limited to: Foundations Structures Ext. & Int. Finishes Fittings & Fixtures Furniture & Equipment Plumbing Electrical Mechanical Material Testing Inspection Change Orders
ADDITIONAL GRANT FOR SITE DEVELOPMENT		
SERVICE SITE	OFF-SITE	UTILITY - P.O.C. TO SITE
A1. Site clearance A2. Demolition A3. Rerouting Utility Lines A4. Rough Grading A5. Soil Compaction A6. Storm Drains A7. Erosion Control A8. Stairs & Retaining Walls A9. Relocation of Portables A10. Fire Code Requirements A11. Multi-Level Parking *Design Fee 8%	B1. Curbs & Gutters B2. Sidewalks B3. Street Light, & etc. B4. Special District Fees B5. Storm Drains B6. Safety paths *Design Fee 8% except Special District Fee	C1. Water C2. Sewer C3. Gas C4. Electrical C5. Communications *Design Fee 8%

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ADDITIONAL GRANT FOR SITE DEVELOPMENT COST

Regulation Section 1859.76

The district may request additional grants for the following:

- ◆ **Service Site - Section 1859.76(a)**
 - Costs of developing the site within the property lines.
- ◆ **Off-Site - Section 1859.76(b)**
 - Costs of improving two immediately adjacent sides of the site that needs work.
- ◆ **Utility Service - Section 1859.76(c)**
 - Costs of bringing utilities onto the site to serve the project.

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SERVICE SITE DEVELOPMENT

Regulation Section 1859.76(a)

Typical Service Site Development items include:

- 1) Site Clearance
- 2) Demolition
- 3) Rerouting Utility Lines
- 4) Rough Grading
- 5) Soil Compaction
- 6) Storm Drains (See Exhibit 1)
- 7) Erosion Control (Storm Water Pollution Prevention Plan, SWPP)
- 8) Stairs, Ramps, & Retaining Walls (See Exhibit 2)
- 9) Relocation of Portables
- 10) Fire Code Requirements (See Exhibit 3)
- 11) Multi-Level Parking (See Exhibit 4)
- 12) Removal of permanent (classrooms) structures

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OFF-SITE DEVELOPMENT

Regulation Section 1859.76(b)

Typical Off-Site Development items include:

- 1) Curb, Gutters, & Paving (See Exhibit 5A & 5B)
- 2) Sidewalks (See Exhibit 5A & 5B)
- 3) Street Lighting, Landscaping, & Signage (See Exhibit 5A & 5B)
- 4) Special District Fees
- 5) Storm Drain Costs
- 6) Safety Paths

Permits/fees, testing, inspections, etc. that is related to the off-site development are ineligible for State funding.

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UTILITY SERVICE

Regulation Section 1859.76(c)

Typical Utility Service items include:

- 1) Water (See Exhibit 6)
- 2) Sewer (See Exhibit 7)
- 3) Gas (See Exhibit 8)
- 4) Electrical (See Exhibit 9)
- 5) Communication (See Exhibit 10)

Utility company connection fees are eligible and should be requested as part of Special District Fees under Section 1859.76(b)(4) with appropriate supporting documentation.

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EXHIBIT 11A - SITE DEVELOPMENT REGULATIONS

Note: Authority cited: Section 17072.13, Education Code.
Reference: Sections 17072.13 and 17076.10, Education Code.

Section 1859.76. New Construction Additional Grant for Site Development Costs.

The New Construction Grant will be increased by 50 percent of the following approved site development and applicable design costs:

- (a) Service site development cost, within school property lines for:
 - (1) Site clearance including the removal of trees, brush, and debris.
 - (2) Demolition and removal of existing buildings and site improvements which lie in the footprint of a proposed building or proposed site development.
 - (3) Removal and rerouting of existing utility service which lie in the footprint of a proposed building or proposed site development.
 - (4) Rough grading including cut and fill, and leveling and terracing operations required in the design of the project.
 - (5) Soil compaction adhering to common engineering practices and engineered fill that is required by a soils report that is available for review by the OPSC.
 - (6) On-site drainage facilities including inlets below grade drainage facilities and retention basins.
 - (7) Erosion control improvements such as plant material, temporary sprinkler systems, jute mesh and straw, due to embankments having a slope of at least two to one and a vertical height greater than six feet.
 - (8) Outside stairways, handicap ramps and retaining walls due to embankments having a slope of at least two to one and a vertical height greater than six feet.
 - (9) Relocation of existing portable buildings which lie in the footprint of a proposed building or proposed site development including the cost for set-up and utilities if the portable will be relocated on the same site. If the portable will be moved to another site, only the costs to move the portable to the new location.
 - (10) Fire code requirements on site that are not a part of the building.
 - (11) Funding for multilevel parking structures on a new construction project when all the following have been met:
 - (A) The new construction project will be located on site acreage that is less than 50 percent of the site size recommended by the CDE for the master planned project capacity.
 - (B) The number of parking stalls to be funded does not exceed 2.25 for each classroom constructed in an elementary or middle school project.
 - (C) The number of parking stalls to be funded does not exceed six for each high school classroom constructed in a high school project that will serve 9-12 pupils.
 - (D) The state grant does not exceed \$7,500 per parking stall. The amount shown shall be adjusted annually in the manner prescribed in Section 1859.71.
 - (12) Removal and relocation of portable classrooms on a site eligible for replacement pursuant to Section 1859.82(a) that are available for housing pupils pursuant to Section 1859.35(a).
 - (b) Off-site development cost on up to two immediately adjacent sides of the site, for the following:
 - (1) Curbs, gutters and paving of streets not to exceed one-half the mandated local street code requirements. When the existing streets are to be widened inward toward the property line from the existing face of the curb, all new street improvements lying within the one-half of mandated street width adjacent to the project.
 - (2) Sidewalks mandated by local ordinances.
 - (3) Street lighting, planting areas, street signs, traffic signals, trees or other costs mandated by local ordinances.
 - (4) City and/or county or special district fees pursuant to active ordinances.
 - (5) Reasonable cost for storm drains to point of connection.

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EXHIBIT 11B - SITE DEVELOPMENT REGULATIONS

- (6) Funding for safety paths for pedestrian use beyond two immediately adjacent sides of the site necessary for a safe route to the new school site when the following conditions are met:
 - (A) The school district governing board has made a finding at a public hearing that pedestrian safety concerns require improvements in the form of safety paths to provide access to the school site, and the Department of Education concurs with that finding.
 - (B) The improvements are limited to the work necessary to install concrete, asphalt, gravel or other paving necessary to provide the safe paths.
 - (C) The state grant does not exceed \$50,000.
 - (D) The improvements do not include any cost for the acquisition of land, easements or other rights-of-way.
 - (E) The SAB has determined that development of additional pedestrian paths is reasonable.
 - (c) Utility service costs associated with the CDE approved site size that are necessary to serve the master planned capacity of the site as follows:
 - (1) Water: Installation of water supply line(s) and connection fees from the utility company connection to the meter, meters not provided by the serving utility, or installation of a domestic water system (i.e. well, pump, tank).
 - (2) Sewage: Installation of main sewage disposal line from the utility company connection to the first building lateral and if applicable, connection fees. Installation of a sewage treatment/disposal system and a main disposal line from the treatment system to the nearest building lateral of the collection system.
 - (3) Gas: Installation of main supply line and connection fees from utility company to meter and connection fee if applicable. Installation of meters not provided by the utility. Connection of a liquefied petroleum system (and tank) from the main supply line to the first building lateral.
 - (4) Electric: Installation of service from the utility to the building switchboard. Primary electric service runs from the utility company's point of connection to the transformer. Secondary electric service runs from the transformer to the switchboard. Connection fee, transformer pads and protective devices.
 - (5) Communication systems: Installation of service from the company to the nearest distribution center.

The district must submit a detailed cost estimate for all requests for site development work and any justification documents that will support the work with the *Application for Funding*, Form SAB 50-04 (Revised 09/01).

The Board will approve reasonable and appropriate site development work which meet common engineering practices and industry standards that are consistent with the specific site conditions if the site development costs are consistent with the Saylor Current Construction Costs. The design professional must certify to the district that the site development work does not exceed the minimum requirements to develop the site to meet educational needs and/or standards.

Service site and off-site development costs shall be reduced, on a prorated basis, by the percentage of the excess acreage of the site that exceeds the master plan site acreage approved by the CDE.

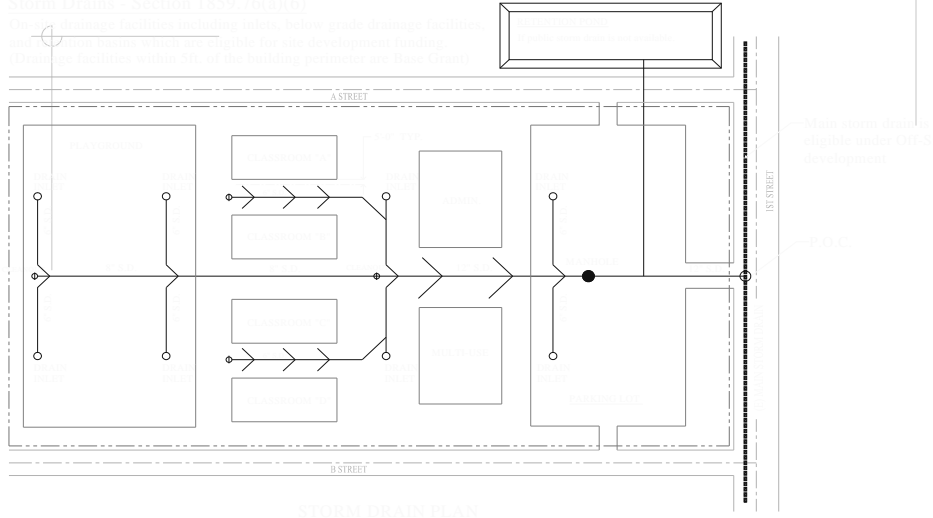
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EXHIBIT 1 - ON-SITE STORM DRAINS

The diagram below indicates typical on-site storm drains.

Storm Drains - Section 1859.76(a)(1)

On-site drainage facilities, including gutters, below grade drainage facilities, and storm drains, shall be provided for the development facilities.
(Drainage facilities within 50 ft. of the building perimeter are those drains.)



STORM DRAIN PLAN
W.T.S.

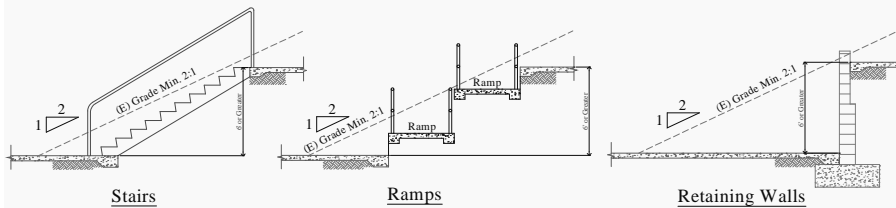
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EXHIBIT 2 – STAIRS, RAMPS & RETAINING WALLS

The diagram below indicates typical stairs, ramps, & retaining walls.

Stairs, Ramps, & Retaining Walls - Section 1859.76(a)(8)

- the existing slope to be at least 2:1.
- the vertical height to be greater than six feet.



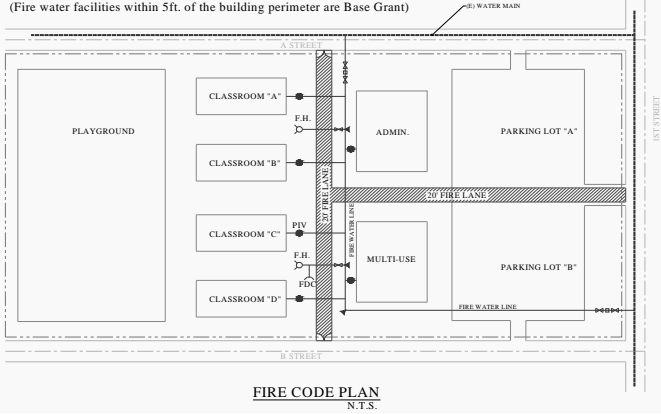
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EXHIBIT 3 – FIRE CODE REQUIREMENTS

The diagram below indicates typical fire code requirements.

Fire Code Requirements - Section 1859.76(a)(10)

- 20' Wide fire lane (or the min. width required by local fire dept.) and access gates.
- Fire hydrants, P.I.V., F.D.C., and related water supply lines/appurtenances.
(Fire water facilities within 5ft. of the building perimeter are Base Grant)



FIRE CODE PLAN
N.T.S.

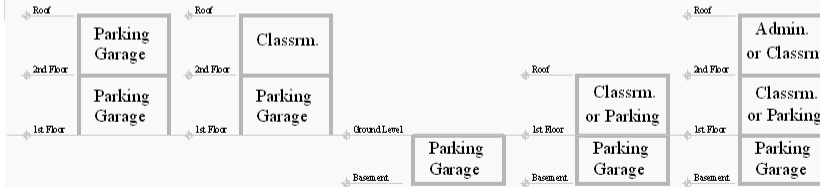
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EXHIBIT 4 – PARKING STRUCTURES

The diagram below indicates typical parking structures.

Parking Structures - Section 1859.76(a)(11)

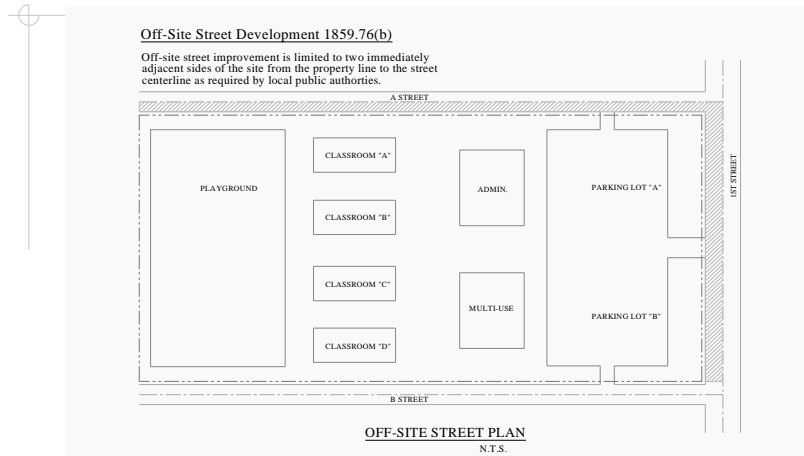
- single floor parking garage in a multi-level building.
- underground parking garage.
- less than 50% of the site size recommended by CDE.
- 2.25 parking stalls per each elementary and middle school classroom.
- 6 parking stalls per each high school classroom.
- \$11,238 (state share) per parking stall - adjusted annually.



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EXHIBIT 5A – OFF-SITE STREET IMPROVEMENT

The diagram below indicates typical off-site street improvement.



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EXHIBIT 5B – OFF-SITE STREET IMPROVEMENT

The diagram below indicates typical off-site street improvement.

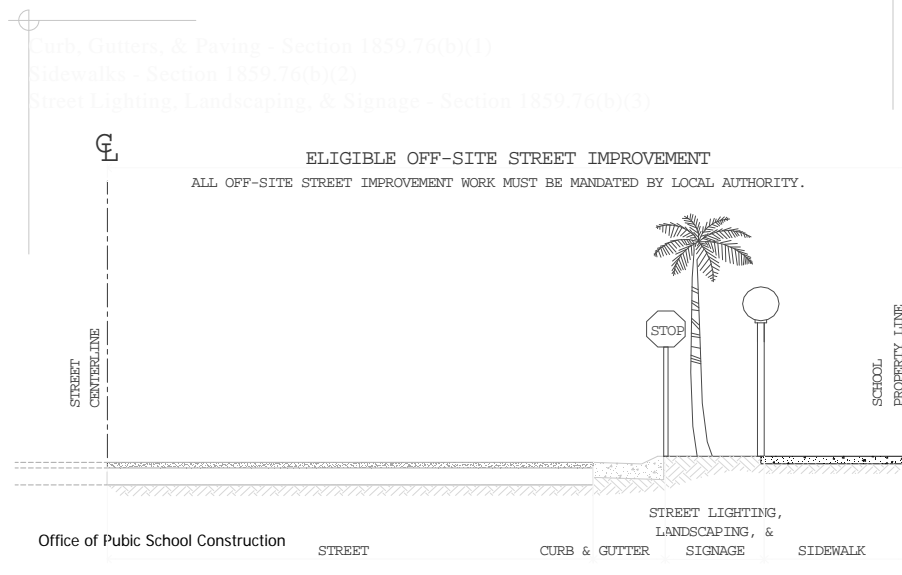


EXHIBIT 6 – WATER

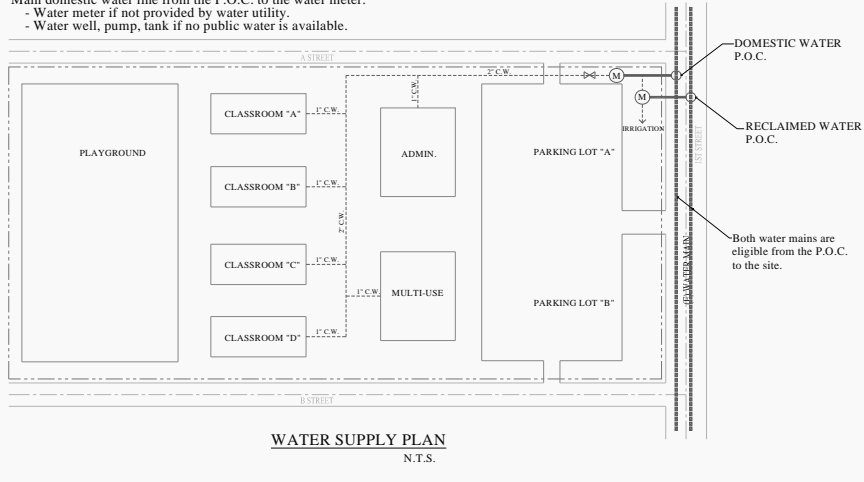
The diagram below indicates typical water supply.

Water - Section 1859.76(c)(1)

Main domestic water line from the P.O.C. to the water meter.

- Water meter if not provided by water utility.

- Water well, pump, tank if no public water is available.



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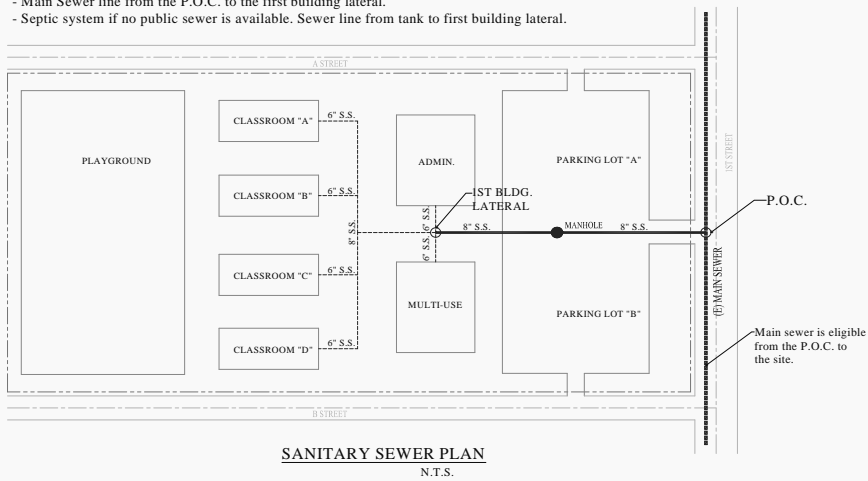
EXHIBIT 7 – SEWER

The diagram below indicates typical sewer drains.

Sewer - Section 1859.76(c)(2)

- Main Sewer line from the P.O.C. to the first building lateral.

- Septic system if no public sewer is available. Sewer line from tank to first building lateral.



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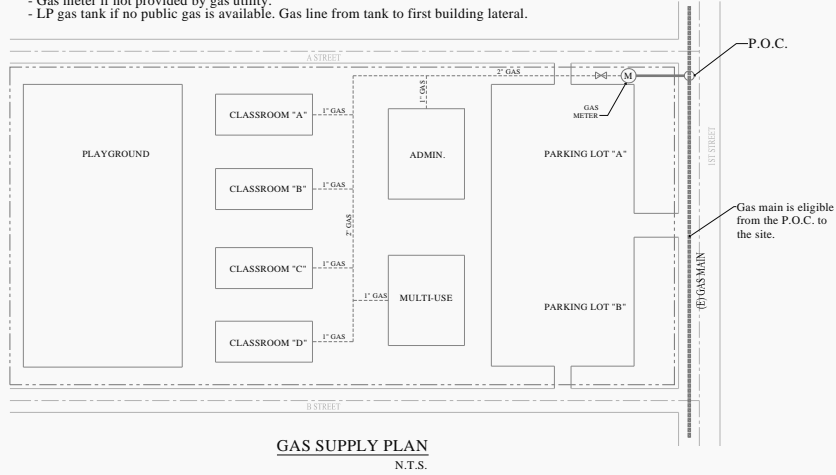
EXHIBIT 9 – GAS

The diagram below indicates typical gas supply.

Gas - Section 1859.76(c)(3)

Main gas line from the P.O.C. to the gas meter.

- Gas meter if not provided by gas utility.
- LP gas tank if no public gas is available. Gas line from tank to first building lateral.



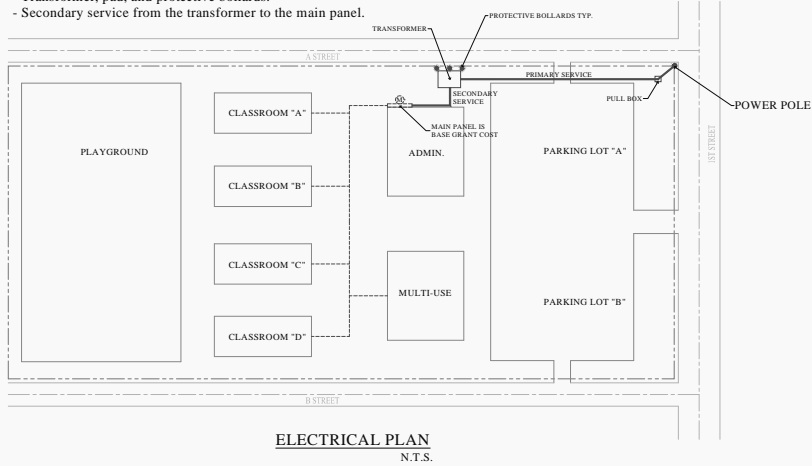
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EXHIBIT 9 - ELECTRICAL

The diagram below indicates typical electrical supply.

Electrical 1859.76(c)(4)

- Primary service from the P.O.C. to the transformer.
- Transformer, pad, and protective bollards.
- Secondary service from the transformer to the main panel.



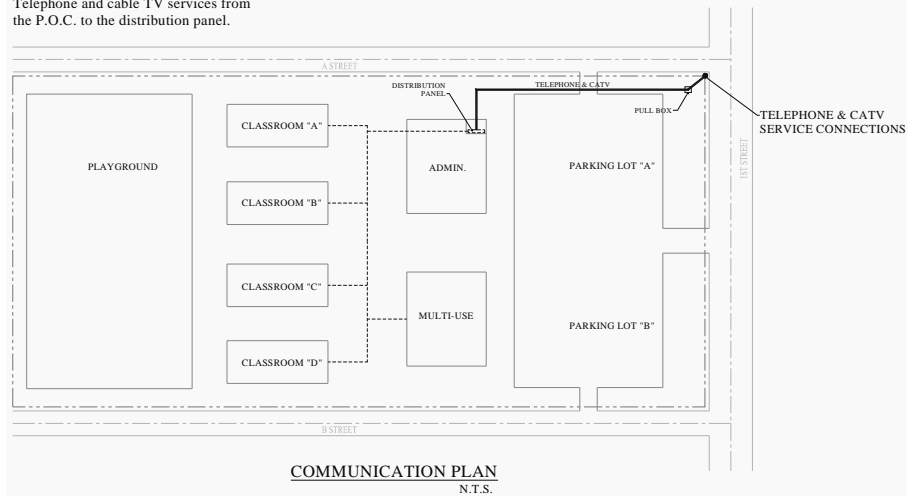
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EXHIBIT 10 - COMMUNICATIONS

The diagram below indicates typical communications.

Communications - Section 1859.76(c)(5)

Telephone and cable TV services from the P.O.C. to the distribution panel.



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SUPPORTING DOCUMENTS FOR SITE DEVELOPMENT COSTS

- DSA approved plans.
- DSA approved specifications.
- Local authority approved off-site plans or preliminary approval letter from the local authorities as needed.
- Detailed cost estimate for site development.
- Soil/geotechnical reports to back up grading and excavation requirements.
- Reference plan pages on worksheet and show calculations for grading and fill in comments.
- Local Utility Districts fee schedules and calculations.
- Local Utility Companies connection fee information.
- **Clarify requested costs with comments if/when needed. A little explanation goes a long way.**

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SITE DEVELOPMENT COST DETERMINATION

- Reasonable and appropriate site development work which meets common engineering practices and industry standards.
- Reasonable site development costs which is consistent with the Saylor "Current Construction Costs".
- If items cannot be found in Saylor, other cost reference books, contractor's quotes, and unit cost breakdowns will be considered.



Division 4 CSI #	O4 - MASONRY Description	Unit	Material	Union Install	Union Total	Open Install	Open Total	Unit Man-Hrs
MASONRY:								
CSI Numbers: For any concrete or masonry work, include mortar and sand, coping and sills, jumbo and heads must be included from the masonry.								
BRICK VENEER:								
04.1001 011	Veneer, 4", standard brick, commercial	SF	4.75	4.68	9.44	2.89	7.44	0.0871
04.1001 021	Veneer, 4", standard brick, residential	SF	2.94	4.32	7.26	2.42	5.36	0.0763
04.1001 031	Veneer, 4", modular	SF	5.04	8.61	13.65	3.80	8.84	0.1228
04.1001 041	Veneer, jumbo brick, 4"x8"x12"	SF	3.37	4.85	8.22	2.67	6.04	0.0864
04.1001 051	Veneer, jumbo brick, 6"x8"x12"	SF	4.82	5.17	9.99	2.92	7.79	0.0961
04.1001 061	Veneer, jumbo brick, 8"x8"x12"	SF	8.27	5.72	13.99	4.18	9.50	0.1063
04.1001 071	Veneer, face brick, select	SF	5.62	7.11	12.73	4.06	9.50	0.1321
04.1001 081	Veneer, common brick	SF	4.68	7.03	11.71	4.03	8.61	0.1305
04.1001 091	Veneer, roman brick	SF	5.32	9.99	15.31	5.74	11.06	0.1656
04.1001 101	Veneer, glazed brick	SF	8.49	11.31	19.80	6.49	14.98	0.2100

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SITE DEVELOPMENT WORKSHEET FOR ADDITIONAL GRANT – Preformatted Template

SITE DEVELOPMENT WORKSHEET FOR ADDITIONAL GRANTS

SCHOOL DISTRICT _____ 5 DIGIT DISTRICT CODE _____
 SCHOOL NAME _____ COUNTY _____
 ARCHITECTS FIRM _____ DATE OF ESTIMATE _____

Plan Ref.	CSI #	Description	Quantity	Unit	Unit Cost	Total
		(A) SERVICE SITE DEVELOPMENT	Go To Off-Site		Go To Utility	
		A1. Site Clearance - Section 1859.76(a)(1)				
		Removal of trees, brush and debris.				
		Site Preparation				
		Clear, grub, brush, turf, roots, disposal		SF		
		Tree Removal				
		Remove tree, 6"-8", off site disposal		EA		
		Remove tree, 10"-14", off site disposal		EA		
		Remove tree, 20"-30", off site disposal		EA		
		A2. Demolition - Section 1859.76(a)(2)				
		Demolition and removal of existing buildings and site improvements that lie in the footprint of a building or proposed site development.				
		Asphalt & Concrete Paving Removal				
		Remove pavement, asphalt, 5,000 to 25,000 sqft.		SF		
		Remove pavement, asphalt, 25,000 to 50,000 sqft.		SF		
		Remove pavement, asphalt, over 50,000 sqft.		SF		
		Remove concrete slab, 5" max, with rebar		SF		
		Remove concrete curb/gutter, no sawing		LF		
		Remove concrete curb-planter & batter board		SF		
		Remove concrete sidewalk, outside building		SF		
		A1. Site Clearance:			\$	-

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OPSC / PVT REVIEW PROCESS FIRST REVIEW

- ◆ OPSC may request additional information, such as soil report, district/utility fees, and quantity/unit cost breakdowns to substantiate the requested costs that PVT was unable to verify. Submit initially to avoid delays.

- ◆ The District must make changes to the original cost estimate to reflect PVT's findings or contest the findings in the comments section.

- ◆ New plans will not be accepted.

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PVT Response

		Application number	Site Name:		By/Date	By/Date	By/Date	Estimate Referen			
0	0	0	0	0	0	0	0				
Plan Location	Item	Quantity	Unit	Unit Cost	Proposed Estimate	Base Grant	Unverified work	Cross check	OPSC Allowance	Comments	Saylor Publications
(a) Service Site											
(1) Site clearance											
C1	Clear and grub	100,000	sf	\$0.12	\$12,000.00	\$0	\$0	\$12,000	\$12,000.00		
		Sub Total			\$12,000.00	\$0	\$0	\$12,000.00	\$12,000.00		
(2) Demolition											
C-1	Demo (e) 1-story building	1	ls	\$12,000.00	\$12,000.00	\$0	\$12,000	\$12,000	\$0.00	Cannot verify lump sum. Provide quantity and unit cost breakdown.	
C-1	Demo (e) ac paving	2,500	sf	\$0.31	\$775.00	\$0	\$0	\$775	\$775.00		
		Sub Total			\$12,775.00	\$0	\$12,000	\$12,775.00	\$775.00		
(3) Rerouting utility lines											
		Sub Total			\$0.00	\$0	\$0	\$0.00	\$0.00		
(4) Rough Grading											
C-2	Site cut	2,000	cy	\$4.26	\$8,520.00	\$0	\$0	\$8,520	\$8,520.00		
C-2	Over-excavation building pads	600	cy	\$5.16	\$3,096.00	\$0	\$3,096	\$3,096	\$0.00	Cannot verify quantity. Provide soil report to verify the requirements of over-excavation.	
		Sub Total			\$11,616.00	\$0	\$3,096	\$11,616.00	\$8,520.00		
(5) Soil Compaction											
C-2	Site Backfill	800	cy	\$12.00	\$9,600.00	\$0	\$3,672	\$9,600	\$5,928.00	Allow ed @\$7.41/cy.	Saylor 02.2005 051
		Sub Total			\$9,600.00	\$0	\$3,672	\$9,600.00	\$5,928.00		
(6) Storm Drains											
C-3	12" pvc	100		\$50.58	\$5,058.00	\$0	\$0	\$5,058	\$5,058.00		
C-3	6" pvc	250		\$20.90	\$5,225.00	\$0	\$0	\$5,225	\$5,225.00		
C-3	Downspout connections	8		\$150.00	\$1,200.00	\$1,200	\$0	\$1,200	\$0.00	Base Grant cost.	
		Sub Total			\$11,483.00	\$1,200	\$0	\$11,483.00	\$10,283.00		
(7) Erosion control on 2:1 embankments over 6'											
		Sub Total			\$0.00	\$0	\$0	\$0.00	\$0.00		
(8) Stairs, ramps & retaining walls for 2:1 embankments over 6'											
		Sub Total			\$0.00	\$0	\$0	\$0.00	\$0.00		
(9) Relocation of relocatables in the footprint of the building											
		Sub Total			\$0.00	\$0	\$0	\$0.00	\$0.00		
(10) Fire loop & access road											
		Sub Total			\$0.00	\$0	\$0	\$0.00	\$0.00		
(11) Multi-Level parking structure per (A) thru (D)											
		Sub Total			\$0.00	\$0	\$0	\$0.00	\$0.00		
		Service Site Total			\$57,474	\$1,200	\$18,768	\$57,474	\$37,506		
		(13) Design costs		8%				\$4,598	\$3,000		
		Allowance Total			\$62,072				\$40,506		

OPSC / PVT REVIEW PROCESS SECOND REVIEW

If necessary, after a response from the district to OPSC first review comments, OPSC may request further clarification or justification.

- ◆ **Accept final site development cost as full and final. No adjustments will be made in the cost estimate.**
- ◆ **Withdraw the application and resubmit in next funding cycle.**
- ◆ **File an appeal and dispute the funding.**

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Examples in Handout

- ◆ Goal is to maximize funding by being aware of what items are eligible.
- ◆ Remember, these are site specific "Additional Grants" which is funding on top of the per student base grant.
- ◆ See the examples of "good" and "not good" cost estimates.

Career Technical Education Facilities Cost Estimates

- ◆ Must Provide Detailed Cost Estimate with Career Tech applications.
- ◆ Cost Estimates should reference plan page, give quantity, unit and unit cost, and reference Saylor when applicable.
- ◆ For further detail on Career Tech requirements see page 21 of the Architect's Submittal Guidelines.

Communication

- ◆ If there are questions concerning possible issues related to PVT, it is beneficial to call or set up a meeting to discuss those issues before the application is submitted to OPSC.
- ◆ An important goal is better lines of communication and improved customer service.



QUESTIONS AND DISCUSSION